Career learning environments in vocational education

Study of a government initiated innovation programme in the Netherlands

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Chapter 1

General introduction

The careers that today's students will pursue are unpredictable and flexible. Contemporary vocational education, preparing for a specific vocation, is not sufficient to equip students with the right skills for their future. A culture change in education seems to be required in order to adopt a different view on adequate training, as globalisation and digitalisation have caused major developments in the labour market of Western societies (Allen & Van der Velden, 2012; Collin & Young, 2000). These developments result in a decline of employment in routine intensive occupations, as technological development accelerates (Frey & Osborne, 2017; Jaimovich & Siu, 2012), and in boundaryless careers that are to a large extent unpredictable (Arthur, Khapova, & Wilderom, 2005; Pryor & Bright, 2011). In response to these developments, the content of vocational education requires being more focused on employability and flexibility (Hillage, Regan, Dickson, & McLoughlin, 2002; Lafer, 2004; Schulz, 2008; Smith & Comyn, 2004). A focus on so-called 21st century skills becomes apparent, including critical analysis and problem solving, creativity and innovation, entrepreneurship, digital skills, communication, collaboration, social-cultural awareness, and self-regulation and reflection (Thijs, Fisser, & Van der Hoeven, 2014). Most of these qualities are more a matter of attitude than of practical skills, and developing them relates to a positive self-image and self-efficacy of students, as well as their intrinsic learning motivation (Walma van der Molen & Kirschner, 2017). Developing these future-resistant qualities should contribute to self-management of unpredictable careers.

Realising a sustainable career in today's labour market is, in Western countries, primarily the responsibility of individual (future) employees themselves (Maree, 2016; Savickas et al., 2009). As a result, schools increasingly acknowledge that they have an obligation to guide students not only in their academic growth, but also in their career development (Gysbers & Henderson, 2005; Hooley, Watts, & Andrews, 2015; Hughes, Meijers, & Kuijpers, 2015; Jarvis & Keeley, 2003), by helping students to adopt the reflective, inquiring, and flexible attitude they need in their unpredictable career by forming a career identity (Meijers & Lengelle, 2012). This requires a different focus in career guidance than the traditional form, which is based on the trait-and-factor theory of 'matching' and focuses mainly on skills and qualifications (Law, Meijers, & Weijers, 2002). As opposed to matching one's own skills with required skills, a narrative approach to career guidance focuses on reflection on preferred ways of working and living. When students are being heard and validated, reflectiveness on experiences and meaning-making is stimulated (Taylor & Savickas, 2016). Through safe dialogue and deep reflection, 'career stories' (i.e. work or life experiences) can be constructed for a stronger sense of self and, consequently, a stronger vocational identity (Savickas, 2012).

In short, the preparation for flexible careers that are ahead of today's students are likely to require a different learning environment than that suitable for traditional, relatively stable careers. In Dutch vocational education, so-called strong career learning environments have been introduced, which stimulate the development of a reflective, inquiring, and flexible attitude by means of career management skills (Hooley, Watts, Sultana, & Neary, 2013).

Career learning environments

Previous research by Kuijpers and Scheerens (2006), and Kuijpers, Schyns, and Scheerens (2006) identified five career management skills, or career competencies, that correspond with the aforementioned required skills and attitude, and therefore contribute to being self-directed throughout one's career. These career competencies are capacity reflection (observation of capabilities that are important for one's career), motivation reflection (observation of wishes and values that are important for one's career), work exploration (researching job possibilities), career directedness (making thoughtful decisions and taking actions that allow work and learning to correspond with one's capabilities, motivation, and challenges at work), and networking (building and maintaining contacts focused on career development).

Research conducted on Dutch vocational education suggests that a learning environment aimed at developing career competencies should be practice-based and dialogical, and has to offer students a growing autonomy regarding the choices they make (Kuijpers, Meijers, & Gundy, 2011; Meijers, Kuijpers, & Gundy, 2013). Central to this 'strong' career learning environment is a career dialogue with the students, in which meaning is attached to concrete experiences with work. Corresponding with the development of career competencies, the development of a career identity takes place by means of real-life, meaningful (work) experiences, and individual conversations about these experiences (Meijers & Lengelle, 2012, 2016; Meijers et al., 2013). A strong career learning environment contributes to increased motivation for learning, certainty with regards to career choice, and a decreased risk of dropping out (Meijers et al., 2013; Meijers & Kuijpers, 2014). This career learning environment differs considerably from a traditional one by not primarily focusing on information transfer and not being geared towards a standard learning route (Den Boer & Hoeve, 2017). Furthermore, it relies on collaboration between schools and companies. Instead of a divided responsibility (schools provide education, companies provide work placements), a shared responsibility stimulates the focus on real-life experiences and meaningful conversations about these experiences. Realising strong career learning environments is, therefore, a change process that challenges the foundation of education in its current form. It calls for educational innovation that realises sustainable change in culture and structure, and consequently in the attitudes and behaviour of teachers (Fullan, 2007; Kuijpers & Meijers, 2017).

Career guidance in Dutch vocational education

Developments regarding contemporary careers are particularly relevant for vocational education, the main supplier of practical employees for the Dutch labour market. In the Netherlands, about 40% of all professionals in the labour market are graduates of a

secondary vocational education (SVE) course. Secondary vocational education in the Netherlands offers study routes to qualify for the labour market; it usually follows pre-vocational education at the age of 16, but offers continuing and adult education as well. Secondary vocational education in the Netherlands varies in duration (from one to four years), difficulty (four levels), and study route. The school-based route includes between 20 and 60% workplace training, with the remaining time spent at school; the work-based route includes a minimum of 60% workplace training. The SVE sector consisted of 66 vocational education colleges in the school year 2016–2017, comprising multidisciplinary, agricultural, and specialised colleges. In 2016, 492,700 students started a SVE course in the Netherlands, more than half of them (53%) at the fourth and highest level (MBO Raad, 2018). A team-oriented approach has been one of the main focuses of the Dutch national policy on SVE since 2009. Teams consist of a specific group of teachers who are collectively responsible for designing, executing, and improving vocational training, as well as professionalising its members (Van der Klink & Nieuwenhuis, 2017).

Secondary vocational education institutes are struggling to adopt a learning environment that responds to the career demands of the contemporary labour market (Onstenk & Westerhuis, 2017). In 2006, a large-scale quantitative study of 8,319 students and 537 teachers from 46 schools showed that a strong and dialogical career learning environment was present in only three of the 226 classrooms studied (Meijers, Kuijpers, & Bakker, 2006). Research by Winters, Meijers, Kuijpers, and Baert (2009) showed that, in conversations about students' experiences in their work placements, teachers talked *to* students 65% of the time, talked *about* the students 21% of the time, and talked *with* students only 9% of the time. The teachers determined the content of the conversations on work placements, which mainly addressed the most successful ways to earn a diploma, structured by the school's agenda. Recent research by Schröder-De Boer and Havinga-Heijs (2017), which builds upon that of Winters et al. (2009), indicated that conducting a reflective dialogue with students was still considered quite difficult by teachers. Findings of Mittendorff, Den Brok, and Beijaard (2010) and Mittendorff, Jochems, Meijers, and Den Brok (2008) are in line with these results, as they revealed that teachers showed 'traditional, teacher-dominated' behaviour in career conversations with students, with a focus on instruction, explanation, and knowledge transfer. Furthermore, their results showed that reflection occurred in 'compulsory' forms like portfolios, and was not viewed as useful by the students.

Harlaar-Oostveen and Meijers (2014) investigated if teachers in higher vocational education experience conversations with students about their work placements as reflective dialogues. Their results showed that reflection and dialogue rarely took place. Most teachers did not have a unanimous and clear picture of what could or should be understood by a real dialogue. The teachers did state that dialogue is important and should take place more often. At the same time, the teachers appeared to be hesitant about asking deep questions during the reflective conversations. The terms 'evaluate'

and 'reflect' were not clear to the teachers interviewed and were used interchangeably. Finally, there was no consensus among the teachers about the purpose of the conversations regarding students' work placements.

The national satisfaction monitor for students in SVE showed that 45% of the students in 2016 were satisfied with the guidance of their study and career choice, and slightly more (51%) were satisfied with the guidance for choices during their study programme. Although these numbers showed a small increase compared to the results of the monitor in previous years, about 20% of the students were dissatisfied with the guidance they received regarding their individual (study) career (Razzak & Lensen, 2016). Career guidance that is provided in vocational education continues to concentrate on information supply about continuing education, with limited attention to quality assurance (Oomen, Van den Dungen, Pijls, & Egelie, 2012).

It seems that teachers in SVE still perceive their teaching role as focused on transfer of knowledge and providing feedback in a rather monological manner. The underlying reason might be a lack of dialogical skills, as school-based career guidance is mostly offered without any substantial training of the counsellors (Hughes et al., 2015; Oomen et al., 2012; Winters, 2012). Moreover, the approach required for giving students meaningful career guidance calls for a considerable change in the routines of teachers, with new behavioural patterns and different roles. But changing routines is laborious as it brings about chaos and uncertainty, and can therefore be experienced as undesirable. It is argued that falling back on previous, familiar teaching routines is therefore often quite appealing (Den Boer & Hoeve, 2017; Korthagen, 2004).

Educational innovation

Realising strong career learning environments in vocational education is a change process that relates to Fullan's (2007) description of educational innovation; it requires multidimensional change in culture and structure, as it has consequences for the possible use of materials, for the use of new teaching approaches, and for beliefs and assumptions of teachers. Innovation needs to occur in practice and along these three dimensions in order to achieve sustainable change. Fullan (2007, p. 32) argues that 'in fact, innovations that do not include changes on these dimensions are probably not significant changes at all', but a 'minor change at best'. Changes in the beliefs of teachers, in what they *think* is the purpose of education, is the most difficult, and most fundamental, dimension of lasting educational change. It requires a shared meaning of the formulated ambitions and goals of the innovation, as beliefs are invariably impossible to impose. Creating a shared meaning and consequently achieving changes in behaviour requires a process of co-creating in a dialogical way, and it implies the collective learning of teachers (Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007). The ability of teachers to learn collectively is, therefore, a key factor in the process of establishing a new

learning environment (Castelijns, Vermeulen, & Kools, 2013). Lodders (2013) approaches collective learning as collectively working towards common learning and/or working outcomes, with possible long-term changes in knowledge, attitudes, and skills. A dialogical attitude of teachers during this change process is essential to achieving shared meaning.

Bringing success to a new educational situation by guiding a collective learning process and implementing a focused and sustained policy is associated with a transformational leadership style. Transformational leadership focuses on realising a culture change by creating a work environment in which teachers work together optimally and in which they strongly identify themselves with the commonly created goals of the school (Lodders, 2013; Ten Bruggencate, 2009). Initiating and guiding the development of a shared and supported vision to inspire teams and individuals within an innovation is an important dimension of transformational leadership. Besides the dimension of initiating a shared vision for the future as opposed to imposing a new vision on the team, a transformational leadership style is characterised by intellectual stimulation and individual support (Geijsel, 2015; Geijsel, Sleegers, Stoel, & Kruger, 2009). Previous research in Dutch universities indicated a direct relationship between transformational leadership and career oriented innovations, as well as an indirect relationship between transformational leadership and career oriented innovations via collective learning (Lodders, 2013; Lodders & Meijers, 2017). Furthermore, research suggests that transformational leadership is positively related to teachers' level of engagement in professional (team) learning activities, and is related to building capacity for change and improvement (Bouwmans, Runhaar, Wesselink, & Mulder, 2017; Geijsel et al., 2009; Thoonen, Sleegers, Oort, & Peetsma, 2012).

Innovation project COG/SVE

In 2010, the national five-year innovation project called 'Career Orientation and Guidance in Secondary Vocational Education' (COG/SVE) began, financed by the Dutch Ministry of Education and executed by the project office MBO Diensten (*SVE services*). This project was developed to encourage vocational educational institutes to initiate or continue the creation of a strong career learning environment for their students, as the career competencies became integrated into the qualification requirements of SVE. By initiating and facilitating the innovation project COG/SVE, the Dutch Ministry of Education aimed to make SVE institutes in the Netherlands more responsive to the labour market by offering them professional guidance for developing career focused learning environments for their students (MBO Diensten, 2010). In the COG/SVE project, 37 SVE schools participated on a voluntary basis. The schools were spread throughout the Netherlands and included inner-city schools as well as those in rural regions.

A training programme on conducting career dialogues with students was considered to be the starting point of a transformation towards a dialogical career learning environment. The training programme consisted of both off-the-job and on-the-job stages. In the off-the-job stage, which took a total of two days with periods of two to four weeks in between, the emphasis was on explaining the theory and putting it into practice in career conversations. The teachers were trained through role-playing activities and the provision of recent theoretical insights about career development. They were taught how to encourage students to develop their career competencies by conducting career dialogues that are in form appreciative, reflective, and activating, and in content aimed at the development of a career identity and career oriented actions. In each of the 37 participating schools, at least two teachers participated in an extended off-the-job training programme to become a school coach, in order to coach their own colleagues in improving career dialogues with students. In the on-the-job stage, the emphasis was on the translation of the training to the school environment. All participating teachers took part in a four-session in-school training programme (two individual and two team sessions) with their school coaches, using video recorded guidance conversations of the participants as a starting point for learning. National experts trained both the school coaches and the teacher teams off-the-job, and they also supported the training sessions that took place on-the-job (Kuijpers & Meijers, 2017; MBO Diensten, 2010).

Furthermore, schools were offered support in creating a vision and a policy for the creation of a strong career learning environment that was consistent with the schools' values. Though this was the responsibility of the schools themselves, the project managers could receive guidance from professional experts, if requested. This guidance focused on formulating a vision and policy that offered students real-life work experiences and freedom of choice (e.g. by creating more time for work placements and new guidelines for curricula). Schools were encouraged to concentrate on their own needs, since each school had a different starting point regarding career guidance. It was hoped that the project managers could persuade their managers (i.e. team leaders, managing directors, and executive board) to invest in the learning processes on career guidance and to focus on the formulation of long-term policy and school investment plans. The COG/SVE project focused primarily on the teachers and project managers; management was not explicitly involved (MBO Diensten, 2010, 2012; Meijers, Vogels, Kronenberg, & Den Boer, 2015).

By introducing the COG/SVE project to encourage vocational educational institutes to initiate or continue the creation of a strong career learning environment for their students, the Dutch government aims for Fullan's (2007) description of educational innovation, as it attempts cultural and structural change by improving the schools' policies on career guidance, changing the curriculum to be more practice- and inquiry-based, and the role of the teacher to include being a dialogical career guide. However, previous government-initiated innovation programmes in the Netherlands regarding

learning environments of students struggled to achieve their formulated ambitions. Kuijpers and Meijers (2015) investigated the final reports of 17 Dutch innovation projects, in which collaboration between secondary vocational schools and businesses was pursued in order to establish a strong career learning environment. They found that in none of the projects was the goal of 'guiding together' reached, as many teachers and middle managers involved in the process showed active and passive forms of resistance. This resistance was attributed partly to neglecting to take into account the learning goals of the teachers, and partly to a lack of leadership during the process. Project groups generally worked on the innovation as envisioned by higher management, without the involvement of middle management or teachers. This resulted in unclear goals, resistance of the middle managers and teachers for not having a say in the decisions, and, consequently, a minimal assimilation of the old routines. This study, as well as other recent research regarding innovation in Dutch education (Consortium 2B MBO, 2017; Hooge, Theisens, & Waslander, 2017), showed that the dynamics in schools during change processes are rather complex, and understanding these dynamics would help in formulating effective educational policy regarding change. Innovations that are enthusiastically initiated are generally not completed and the absence of a systematic approach stands in the way of sustainable change (Elmore, 2016; Fullan, 2007; Fullan, Cuttress, & Kilcher, 2009). It seems that innovation programmes often neglect to recognise the complex and deeply embedded nature of culture change. As Fullan (2009, p. 202) stated, 'Large-scale, successful reform occurs in a thousand small ways during the journey.'

Overview of the present research

Aim

Investigation of the influence of the national COG/SVE project could contribute to the understanding of educational culture change, and provide suggestions for developing an effective, systematic approach to innovation. The aim of this research is to give a description of the innovation process regarding career learning environments, and to get a clear perspective on the stimulating factors and obstacles at the level of the teachers and in-school project managers involved in the project, by maintaining a focus on leadership, policy formulation, and collective team learning. The central research question of this dissertation is the following:

> *In what way does the national innovation project COG/SVE influence cultural and structural changes in the work environment of teachers and, consequently, in the career learning environment of students?*

Method

This research project is longitudinal and qualitative in nature, designed to gain theoretical and practical insight into the influence of the COG/SVE project. A longitudinal approach was chosen since we are interested in the developments in our sample over time and, moreover, in the processes that influence the changes in the role perception and work environment of the teachers. Since we examined the teacher sample at four different moments by means of a panel study, we were able to determine actual changes in specific individuals over time. Furthermore, we chose a qualitative approach for our longitudinal study as we are interested in the perspectives of our participating teachers and project managers on their individual and collective roles in the career learning environment of their students, as well as their experiences with the factors that influence this (Creswell, 2014). We expected to learn from their individual experiences to understand the general dynamics occurring during 'reculturing' and to provide recommendations for future innovation.

We started in 2013 by selecting a sample of teachers for our research, who participated in two central training days as part of the training programme of the project. We approached the group of 238 teachers, from 20 different participating schools, and they filled in an initial questionnaire on their personal motivations and aspirations regarding the project, as well as about their knowledge of the existence of their schools' policies and visions on career orientation and guidance (COG). Teachers with highly divergent scores on the questionnaire were personally approached, to realise maximum variation sampling (Miles, Huberman, & Saldaña, 2014) and to avoid distorted results. Eventually, 50 teachers from 18 different schools agreed to participate in our research. For two schools, no teachers agreed to participate due to unknown reasons. During our longitudinal study, three teachers who were interviewed in 2013 and 2014 were excluded from the sample later in our research trajectory, because they were not willing to participate or they left the school. The teachers were interviewed (semi-structured format) in late 2013 about their experiences with the training as a collective learning process, the communication with their colleagues and their team and school leaders, and other experiences regarding the creation and existence of a career learning environment at their school. The teachers were invited to share their ideas and opinions on the present and future situation of the career learning environments at their schools. Since we were interested in a deep understanding of the process that teachers experience, this narrative interview method contributes to the validity of the study (Bimrose & Hearne 2012; Boeije 2010; Smith & Sparkes 2006; Stake 2005). Within five to eight months the same teachers were interviewed again in 2014, and again one year later in 2015, to gain insight into both the development process of the career learning environment and the developments in the collective learning processes and experienced leadership style. Finally, in 2016, the remaining 47 teachers engaged in reflective and concluding interviews regarding their views on the influence that the COG/SVE project had on them-

selves individually as well as on their team and their schools. Furthermore, 38 project managers from 34 participating schools were interviewed in late 2013, and the same project managers (39, including one new project manager) were interviewed again in 2016 about each school's vision and policy regarding career guidance, the effects of the COG/SVE project, and the main factors stimulating or hindering the change process. Three case studies were conducted to gain deep insight into the policy formulation and implementation process, as well as the role of dialogues, collective learning, and leadership. Three schools were strategically selected, and data were gathered from March 2015 to June 2016, through semi-structured interviews with the project managers of the schools and participant observation of meetings and training sessions.

Accordingly, our study is strengthened by triangulation, from using distinctive data sources (Miles et al., 2014). Furthermore, the research used prolonged engagement and persistent observation, and member checking was performed with some of the data. The established 'thick description' (i.e. rich and thorough presentment of the situation) of the processes initiated by the COG/SVE project helps with the transferability to other contexts (Lincoln & Guba, 1985). See Table 1 for a timeline of the conducted interviews and the separate chapters for more details on the data collection and analysis.

Relevance

In a general sense, answering our research question is relevant for both developers and implementers of policy, as well as project managers who need to create and maintain a situation of sustainable educational change. Furthermore, middle management (team leaders) and higher management (directors, executive board) of schools involved in situations of educational change can acquire insight into how to approach and guide teachers during the change process and afterwards, in order to create sustainable changes. For teachers, this dissertation provides insight into the comprehensive process of culture change in their own work environment. In a more specific sense, the results could empower Dutch vocational schools to implement career learning environments that equip their students with competencies for a flexible future and rapidly changing labour market. Lastly, the outcomes of this research can contribute to more successful and manageable innovation policy regarding school-based career guidance. This is not only an issue in the Netherlands, but in many Western European countries as well (Hooley et al., 2015; Hughes et al., 2015).

Scientifically, this research contributes to the understanding of developing career learning environments in education. The research question draws upon the definition of educational innovation as a sustainable change in culture and structure, with consequences for the beliefs and behaviour of teachers (Fullan, 2007). This study explores the factors that stimulate and limit structural and cultural change in schools while a career learning environment is developed. It builds on the existing literature of collective learning and transformational leadership as important key factors in sustainable reculturing.

Finally, a scientific contribution is made to the process of changing teachers' beliefs and attitudes, which eventually lead to changes in their behaviour towards their students.

Table 1 Timeline measurements and respondents

	Measurement 0 Sept–Dec 2013	Measurement 1 Oct 2013–Jan 2014	Measurement 2 April–June 2014	Measurement 3 April–May 2015	Measurement 4 April–June 2016
Teacher selection questionnaire	N^1=238				
Teacher interviews		n=50	n=48	n=45	n=47
Project manager interviews			N=38		N=39

[1]N = the total sample, n = a sub-sample of the total sample

Structure of chapters

In this section, an overview is given of the chapters of this dissertation by discussing the research aim and questions of each chapter. Each chapter is introduced by a focused version of the current theoretical and practical introduction, since the chapters have all been developed as independent papers.

The next chapter shows the results of the first measurement immediately after the start of the project. These results provide insight into the first processes initiated by the COG/SVE project, with a focus on the developments in the work environment of the participating teachers. Three research questions are investigated:
1. How and to what extent does the project COG/SVE succeed in starting a process towards strong career learning environments that are dialogical as well as practice- and inquiry-based?
2. To what extent does the project stimulate collective learning of the teachers?
3. Is transformational leadership present to promote the development of a strong career learning environment?

The third chapter describes, with the same research questions as chapter 2, how teachers and project managers of these schools perceive the developments in their own work environment and the learning environment of their students during the first as well as the second measurement, which occurred with about six months in between. This short-term development interests us for eliciting the learning curve that the teachers experience in the first half-year after the training programme.

The fourth chapter describes the policy-shaping process and implementation at three vocational education institutes that participated in the COG/SVE project. Three case studies are presented to gain deep insight into (a) the innovation process initiated by the project regarding the formulation and implementation of a policy on career guid-

ance, and (b) the role of dialogues, collective learning, and leadership during this process. We answer the following research questions:

1. To what extent is a clear distinction visible between strategic policy and tactical policy?
2. To what extent are dialogues conducted between managers and teachers, as well as among teachers?
3. To what extent does the dialogue between managers and teachers, as well as among teachers, contribute to the realisation of strong career learning environments?
4. Which leadership style stimulates the collective learning process?

The fifth chapter shows the consequences of the many changes in the teachers' work environment, influenced by the project, on an individual level. It provides insight into the change process regarding the perception of their role as teacher, and explores which factors contribute to a possibly different view of their teaching role. In this chapter, we therefore answer the following research questions:

1. To what extent has the role perception of teachers participating in the project COG/SVE changed since the start of the project?
2. What organisational factors stimulate this change in teachers' role perception?

The last chapter summarises the results of the four studies as presented in chapters 2–5 and answers the central research question of this dissertation. General conclusions and recommendations are presented, and a critical reflection on the longitudinal research project is discussed.

Chapter 2

The start of the development of strong career learning environments - the project COG/SVE

Abstract

Schools are increasingly acknowledging their responsibility to guide students in their career development. However, the guidance that is provided in the Netherlands, as well as in other Western countries, focuses for the most part on helping students towards their academic achievement, and not on helping them to develop competencies to manage their own career. In order to promote this type of career guidance, 37 secondary vocational schools in the Netherlands participated in a project that offered a training programme, aiming to teach teachers how to conduct career dialogues with students. The programme offers expert guidance to integrate a dialogical approach to career guidance and a more inquiry- and practice-based curriculum in the school's vision and policy. In this chapter, the results of semi-structured interviews with 50 teachers who participated in the project are presented. These interviews were conducted right after the start of the project, to study how teachers perceive the initial situation regarding career development in their schools, as well as their perception of the initiated plans and ambitions for development, both in their own learning environment and the learning environment of their students.

Schools are increasingly acknowledging that they have a strong responsibility to guide students not only in their academic growth, but also in their career development (Gysbers & Henderson 2005; Jarvis & Keeley, 2003). Careers do not always develop within prescribed boundaries anymore and are, therefore, to a large extent unpredictable (Arthur, Khapova, & Wilderom, 2005; Pryor & Bright, 2011). At the same time, youngsters are expected to be intrinsically motivated to work when they enter the labour market (Bimrose & Hearne, 2012; Irving & Malik, 2005). Realising a sustainable career in today's labour market is primarily and increasingly the responsibility of individuals themselves (Maree, 2016; Savickas et al., 2009). Schools, therefore, embrace the idea of developing different skills that are needed for meeting the demands of the labour market, such as the ability to show flexibility based on commitment to work and commitment to the employer in changing times (Hillage, Regan, Dickson, & McLoughlin, 2002; Lafer, 2004; Schulz, 2008). This embracing happens, however, without realising that such skills require a different learning environment than when the focus was on traditional technical competencies (Payne, 2000; Smith & Comyn, 2004). This chapter describes how the teachers perceive the initial situation of their school regarding the process towards such a non-traditional learning environment, focused on the development of the needed skills in vocational education schools in the Netherlands, and initiated by the national developmental project 'Career Orientation and Guidance in Secondary Vocational Education'. This project was developed as a consequence of the renewed qualification requirements for vocational education in the Netherlands, and is, therefore, a school external factor that has impact on the internal culture of the school. Accordingly, the focus of the current study is on school internal factors as a response to the school external, societal factors, in the first time period of the project.

Career learning environments

The non-traditional learning environment, required to foster learning motivation, must focus on the development of particular career competencies (Kuijpers, Meijers, & Gundy, 2011) and a career identity (Meijers & Lengelle, 2012). A dialogue about concrete experiences with work is especially essential (Kuijpers et al., 2011; Meijers, Kuijpers, & Gundy, 2013). Kuijpers et al. (2011) and Meijers et al. (2013) showed that a learning environment aiming at the development of career competencies and a career identity is practice-based and dialogical, and offers students a growing autonomy regarding the choices they make. This strong career learning environment differs considerably from a traditional learning environment by not primarily focusing on information transfer, and not gearing them towards a standard learning route.

A strong career learning environment is still to a large extent missing in Dutch education, including vocational schools (Hughes, Meijers, & Kuijpers, 2015). Since August 2000, secondary vocational schools in the Netherlands are obliged as part of the EU's

policy on 'lifelong career guidance' to offer career guidance services without charging the user (Oomen, Van den Dungen, Pijls, & Egelie, 2012). In Dutch education, the term that is used for this in-school guidance service is 'Career Orientation and Guidance'. Career guidance in the Dutch education system is provided in 'career' lessons and in group and individual conversations with students with a frequency that varies from weekly to once every three months (Meijers, Kuijpers, & Bakker, 2006; Oomen et al., 2012). Teachers find it quite difficult to provide career guidance and, more specifically, they find it difficult to conduct reflective career conversations with students (Mittendorff, 2010; Winters, 2012). Research showed that in conversations about work placements teachers talk to the student 65% of the time, 21% of the time they talk about the student and only 9% of the time with the student (Winters et al., 2009). The main reason seems to be a lack of teachers' dialogical skills in combination with a professional identity that is focused on transfer of knowledge and providing feedback in a rather monological manner (Assen, Meijers, Otting & Poell, 2016; Winters, 2012). This professional identity is the result of internal and external dialogues, where a dynamic exchange and an ongoing process of construction takes place, that eventually results in a (renewed) professional identity (Lengelle & Meijers, 2014).

The majority of career guidance practitioners in the Dutch education system has had little or no special training on career guidance (Oomen et al., 2012). The problems stated above may therefore, in part, be solved by training teachers to become competent and confident in narrative approaches to career guidance, to collectively and through external dialogues transform their professional identity in dialogical terms. This requires teachers to develop new routines in the career conversations with their students, and therefore, a change from a monological to a dialogical school culture.

School reculturing

Creating a dialogical career learning environment requires 'reculturing' (Fullan, 2007) schools. Peterson and Spencer (1991, p.142) describe organisational culture as

> *'the deeply embedded patterns of organisational behaviour and the shared values, assumptions, beliefs, or ideologies that members have about their organisation and its work'.*

Changing the organisational culture of a school therefore means changing these deeply embedded patterns and shared values, which should not be taken lightly (Blood & Thorsborne, 2005). All stakeholders should acknowledge the fact that changing the culture of the school happens gradually over a long period of time, and patience is required (Fullan, Cuttress, & Kilcher, 2009).

Reculturing is a process of co-creating new meanings in situations of ambiguity and uncertainty in a dialogical way (Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007; MBO

Diensten, 2012). Co-creating new and shared meanings implies collective learning and working of teachers (Fullan 2007). Following Lodders' research (2013, p.15), collective learning

> *'refers to the work-related learning processes that arise when the members of a collective collaborate and consciously strive for common learning and/or working outcomes. Such learning may result in long term changes in skills, knowledge attitudes and learning abilities, or changes in work processes or work outcomes, signifying development and change respectively.'*

Social interaction, an important element of collective learning, contributes to making tacit knowledge explicit (Fullan, 2007; Van Woerkom, 2003) and therefore, it requires more than learning from others, namely the development of a shared understanding and definition of the learning process and the new knowledge outcome (Gubbins & MacCurtain, 2008). The presence of an organisational vision which directs the process of knowledge creation, an abundance of information for those concerned and a creative chaos which stimulates the interaction with the environment, stimulates collective learning (Nonaka & Takeuchi, 1995).

Building this shared vision is one of the characteristics of a transformational leadership style. Transformational leadership focuses on realising a culture change by creating a work environment in which teachers work together optimally and in which they strongly identify themselves with the commonly created goals of the school (Lodders, 2013; Ten Bruggencate, 2009). Vision building, or initiating and identifying a vision, refers to the development of goals and priorities, and the direction of change.

Transformational leadership addresses the involvement, capacities and motivation of the members of its organisation. It directs the way leaders influence their employees rather than the results of the student outcomes (Bush & Glover, 2014). Besides vision building, transformational leadership is characterised by two other elements: intellectual stimulation and individual support (Geijsel, 2015). Intellectual stimulation refers to the support of teacher professional development and the challenge of teachers to re-address their knowledge and daily practice. Individual support refers to attending the feelings and needs of individual teachers (Beverborg, Sleegers, & Van Veen, 2015; Geijsel et al., 2009; Lodders 2013).

In her research, Lodders (2013) found that transformational leadership has positive effects on the collective learning process of teachers. Lodders and Meijers (2017) found indications of a direct relationship between transformational leadership and career oriented innovations in Dutch universities, as well as an indirect relationship through collective learning. Managers' actions associated with a transformational leadership style stimulate collective learning processes, which are likely to positively influence the innovative behaviour of teams. Furthermore, there is empirical evidence that transformational leadership is positively related to teacher's engagement in professional learning activities and to teachers' motivation for practicing their profession (Runhaar, Sand-

ers, & Yang, 2010; Thoonen et al., 2011). Many teachers do not see professionalisation as a necessary activity for the teaching profession (Van Eekelen, Vermunt, & Boshuizen, 2006). Mostly they find professionalisation only useful if they are actively involved in the development of the programme (Hensel, 2010; Kuijpers & Meijers, 2017). This emphasises the importance of the first element of transformational leadership, vision building, as a co-constructive process between the leaders and in this case teachers for developing a shared vision for the organisational changes.

Considering that culture change is more effective when transformational in nature (Blood & Thorsborne, 2005), we argue that a change in the learning environment for students towards more career development in vocational education requires a collective learning process of the teachers, guided by a transformational leadership style. This style may be exercised by individuals, as well as by groups (distributed leadership; see Bolden, 2011; Bush & Glover, 2014; Harris, 2004).

In conclusion, the creation of a strong career learning environment is needed to enable career dialogues with students. On an organisational level collective learning of teachers is essential to create such a learning environment. On a management level, transformational leadership is necessary to start the collective learning process of teachers.

Project 'Career Orientation and Guidance'

Financed by the Dutch Department of Education, the project 'Career Orientation and Guidance in Secondary Vocational Education' (COG/SVE) was developed to encourage vocational education institutes to initiate and/or continue the creation of a strong career learning environment for their students (MBO Diensten, 2010). The project was developed at the request of the 'MBO Raad'; the national employer's association for secondary vocational education (SVE), and implemented by 'MBO Diensten'; the project office that carries out different vocational education projects for the Dutch Department of Education. Secondary vocational education in the Netherlands offers study routes to qualify for the labour market; it usually follows pre-vocational education at the age of 16, but offers continuing and adult education as well. Secondary vocational education in the Netherlands varies in duration (from one to four years), difficulty (four levels), and study route. The school-based route includes between 20 and 60% workplace training, with the remaining time spent at school; the work-based route includes a minimum of 60% workplace training (MBO Raad, 2018). Team-oriented working is since 2009 one of the main foci of the Dutch national policy on vocational education. Teams consist of a specific group of teachers who are collectively responsible for designing, executing and improving vocational training, and professionalising its members (Van der Klink & Nieuwenhuis, 2017). In the project, 37 SVE schools in the Netherlands signed up to participate voluntarily. They received professional guidance from project office MBO Diensten

(a) to develop a 'strong' (i.e. dialogical) career learning environment by training teachers in conducting dialogical career conversations, and (b) to underpin this strong learning environment by a well-developed vision and policy on career guidance in schools.

The training programme consisted of an off-the-job and on-the-job stage. In the two day off-the-job stage the emphasis was on explaining theory and putting theory into practice in career conversations. During the following on-the-job stage, the emphasis was on the translation of the training to the school environment through two individual and two team sessions, guided by teachers who received an extended training programme as part of the COG/SVE project. The sessions consisted of giving each other feedback on video recorded career guidance conversations with students and practicing the development of the students' career competencies by asking the right questions. Furthermore, attention was paid to establishing a relationship with students during the conversations. The project aimed for teams of teachers to participate in the training programme together, due to the fact that reculturing happens in co-creating new meaning to situations with others (Geijsel, Meijers, & Wardekker, 2007; MBO Diensten, 2012). In the COG/SVE project, the creation of the policy and plans was the responsibility of the schools themselves, but they received professional guidance from experienced policy-makers of the project, if requested. This guidance of the project managers focused on offering students more freedom of choice and real life work experiences, for example, by formulating new guidelines for curricula and make room for more work placements. The development of this new vision and policy on COG was less determined by the project than the training in conducting career dialogues; schools were encouraged to concentrate on their own necessities and priorities, since every school had a different starting situation regarding career guidance. Managers of the participating schools were expected to invest in the learning processes on career guidance and focus on the formulation of long-term policy and school investment plans, but the project focused primarily on the teachers and project managers. Therefore, the directors and managers were not explicitly involved.

Research aim and questions

This study is designed to gain theoretical and practical insight into the influence of the project 'Career Orientation and Guidance in Secondary Vocational Education' on the creation of a strong career learning environment. Over a time period of three years and using four measurements we investigated in a longitudinal manner to what extent the COG/SVE is an impulse for structural and cultural changes in vocational education. The current study provides a description of how 50 teachers of the participating schools perceive the initial situation in their schools regarding career development, as well as their perception of the initiated plans and ambitions for development in their own learning environment and the learning environment of their students. As Han and Weiss

(2005) conclude in their review on sustainability of teacher's programme implementation, it is important to consider pre-implementation factors during the initial phase of the programme (e.g. correctness of the understanding of the programme), since these factors that are specific to the school system and its teachers can affect the potential success of the programme within a particular school and with a given teacher. Furthermore, their review concludes that (p. 675):

> *'If the programme's impact is successful but teachers do not perceive any positive impact of the programme early on, their use of the programme is likely to diminish.'*

The first measurement immediately after the start of the project provides insight into the first effects of the project. Three research questions will be investigated:

1. How and to what extent does the project COG/SVE succeed in starting a process towards strong career learning environments that are dialogical as well as practice- and inquiry-based?
2. To what extent does the project stimulate collective learning of the teachers?
3. Is transformational leadership present to promote the development of a strong career learning environment?

Because of the exploratory nature of this study and the lack of prior research in this specific context, we are particularly interested in the teachers' stories about their experiences at the start of the COG/SVE project.

Method

Sample and selection

As part of the COG/SVE project, two central training days were organised for 238 teachers from 20 of the 37 participating schools in six different regions during the period of September to December 2013. The schools were spread throughout the Netherlands, and included inner-city schools as well as those in rural regions. The teachers of the 17 other schools received their training at a different time.

During the period of October 2013 to January 2014, all 238 participating teachers were approached for a semi-structured interview at a place and time of their choice. At the start of their first training day, the teachers completed a questionnaire on their personal motivation and aspirations regarding the project, and on the existence of their schools' policy and vision on career orientation and guidance. Through these questionnaires it became apparent that most teachers did not participate with their teams as a whole, as intended by the COG/SVE project, but they were signed up or sent individually. Furthermore, teachers with highly divergent scores on the questionnaire were personally approached, to realise maximum variation sampling (Miles, Huberman, & Salda-

ña, 2014) and to avoid distorted results. Eventually, 52 teachers from 18 different schools agreed to participate. Of two schools, no teachers agreed to participate. Two of the arranged interviews were cancelled, due to long-lasting illness of the teachers concerned. Of the interviewed teachers 33 are female; 46 taught specific subjects, and four exclusively worked as student guides or career counsellors. All 50 interviewed teachers participated on a voluntary basis and their anonymity was guaranteed.

Data collection

The data were collected by conducting individual interviews with the 50 participating teachers. The interviews were semi-structured, and therefore open for the topics the teachers wanted to discuss. The researchers monitored a list of topics that had to be covered: descriptions of the career learning environment and any experienced changes, views on the (collective) progress in the COG/SVE project, and desires, plans and ambitions for the future in the area of COG. Example questions of the semi-structured interviews are: 'What are the results of career orientation and guidance at this moment?', 'What changes do you see?' and 'What dilemmas or obstacles do you experience?'. Considering that the training programme of the 50 teachers was just (38) or not yet (12) finished, caution with asking questions that could be interpreted as testing the teachers skills or knowledge regarding COG was required, as these could influence the established openness and ease. Therefore, we did not ask direct questions like 'What are your future plans regarding a practice-based curriculum?', and 'Can you tell us about your involvement in the on-the-job stage of the programme?'. Additionally, the teachers were invited to share their ideas and opinions on the present and future situation of the career learning environments at their schools. Since we were interested in deep understanding of the process that teachers experience, this narrative interview method contributes to the validity of the study (Bimrose & Hearne, 2012; Boeije, 2010; Smith & Sparkes, 2006; Stake, 2005). Therefore, the interviews differ in duration, as the content of the stories of the teachers differ as well.

Twelve of the 50 interviews took place at or just before the second off-the-job training day. Twenty-one interviews took place within a month (one to four weeks) after the second off-the-job training day, and 17 interviews took place more than a month after the second training day. The shortest interview took 12 minutes, the longest 56 minutes. Most interviews took place in the schools where the teachers worked, and some took place at the location of the off-the-job training. Forty-seven interviews were recorded with a video camera, where the camera was placed at the desk or table where the interview took place with the permission of the interviewed teacher and after securing that the recordings would only be used for *verbatim* transcribing the interviews. One interview was conducted via Skype (and also recorded), one interview was conducted through a non-recorded telephone conversation, and one teacher answered the

questions in writing. The first author conducted 36 of the 50 interviews, a second researcher conducted the remaining 14 interviews.

Analysis

Except for one non-recorded telephone interview and one written interview, all conducted interviews were recorded, with the consent of the respondents. The recordings of the interviews were *verbatim* transcribed. The interview transcripts were analysed with the qualitative data analysis programme *Nvivo10*, by use of a bottom-up, iterative, and inductive coding approach (Mortelmans, 2011; Miles, Huberman, & Saldaña, 2014), following the grounded theory method (Corbin & Strauss, 2014). Categories and relationships between the categories were formulated by observations of the data, and descriptive codes and sub-codes were given to different categories, for example: 'Changes regarding COG at schools – Spreading among colleagues' and 'Leadership and role management – Goal or priority unclear' (see Appendix 1 for the coding schema). This adding of codes continued until saturation took place. Strongly overlapping codes were merged. After the coding and data condensation process we conducted a variable-oriented cross-case analysis in order to detect themes that cut across cases and to explore differences and similarities between the cases (Miles, Huberman, & Saldaña, 2014).

To determine the inter-rater reliability of the coding schema Cohen's Kappa, the measurement for the agreement between two raters with measures occurring by chance taken into account, was calculated. For this purpose, a second analyst was trained to use the framework and five interviews (10%) were selected for recoding. Cohen's Kappa appeared to be 0.82. This is considered acceptable (Lombard, Snyder-Duch, & Campanella Bracken, 2002) to almost perfect (Landis & Koch, 1977), although there is no agreed upon cut-off point in the literature on inter-coder reliability (Campbell, Quincy, Osserman, & Pedersen, 2013).

Results

Career learning environment

At the time of the interviews, the interviewed teachers had finished participating in the two day off-the-job training of the project, or were participating in the second training day (12 teachers). Therefore, they had received at least one training day on how to conduct career dialogues with their students regarding concrete (work) experiences. When we asked about their perception of the training as a learning process, the response of 17 of the 50 teachers was that they felt increasingly equipped with skills to conduct meaningful career dialogues.

'Well, I do notice that I find it very nice to have done this course. I now practise the skills I might already had, but maybe not quite good, but I feel that I am refining them. I try more and more to stand back, to let calm come into the conversation, time to think. Making the steps smaller.'

However, half of the 38 participants that finished the two day off-the-job stage desired additional training or feedback on conducting career dialogues with students for themselves and for their colleagues, since they found the training programme instructive, but not sufficient to stimulate a dialogical learning environment. This indicates an absence of the on-the-job stage that was supposed to be provided for these 38 teachers by their schools at the time of the interviews, according to the timeline of the project.

'Yes, I think it is important that the training continues, as I have just indicated. And especially for people who, not just for myself, but especially for people who are not so skilled in that area.'

The other 12 teachers were interviewed during their second training day and, therefore, could not have reached the phase of the on-the-job stage yet.

When we asked the teachers who finished the off-the-job training (38) what results of their newly gained dialogical skills they witnessed, not all of them were able to provide us with a clear answer. Seventeen believed that it was too early in the process to see any results. Nine other teachers stated that by letting the students do the talking and by asking the right questions, students see more possibilities for action and feel like they are the ones that should 'do the work', instead of their teachers.

'What I hear is that there are students who say, especially fourth years, to colleagues: 'This is what we need. There never was such a conversation. Good that we are going to do this.' I also heard a colleague say: 'The next day I got an email back, saying: hey, teacher, I did this and this.''

Four other teachers saw the content of the dialogues with their students cautiously shifting from academic achievement and (non-)attendance to career wishes and goals. Two participants mentioned increasing clarity for the students; since the teachers started participating in the training programme, they felt more approachable for their students when needed. During the training programme, using concrete (work) experiences as a starting point for the career dialogue was an important emphasis. However, this use of a real experience in the career dialogue was seldom referred to during the interviews.

Work placements as part of the practice-based curriculum was discussed variously. Many of the 50 interviewed teachers underlined the importance of real life work experiences for the study programme and for the career development of the students. However, all their comments on work placements focused on the way it was at the present state. None of the teachers mentioned ambitions for change in the curriculum towards a more practice-based environment, nor did they mention a more inquiry-based cur-

riculum with more autonomy for the students, even though we asked for their future plans and wishes regarding career guidance.

It appears that the creation of the dialogical aspect of the learning environment had started, but plans or ambitions of the school for the possible development of a practice- and inquiry-based curriculum were neither experienced by the teachers who finished the two days off-the-job stage (38), nor by the teachers who thus far finished one of the two days (12).

Collective learning of teachers

As part of the COG/SVE project, two central training days were organised for the partic- ipating teams of teachers. The project intended to train complete teacher teams, since career guidance (as well as the vocational training) is the responsibility of the teachers of one team collectively (MBO Diensten, 2010, 2012). However, from the question- naires and interviews it became clear that most teachers participated with colleagues from different teams of their schools, instead of their own teacher team as a whole.

After this off-the-job stage of the training programme, where teams of teachers re- ceived training in conducting career dialogues, the responsibility of the on-the-job stage of the programme lay with the school, and should consisted of individual training, feed- back on recorded dialogues with students and other forms of peer-to-peer coaching. However, the on-the-job stage and the way this was organised at the schools were rather infrequently referred to; only by nine teachers. This means that, at the time of the interviews, a considerable number of the teachers (29), who were supposed to engage in the on-the-job stage collectively, did not talk about their involvement in this part when discussing the experienced changes since the start of the project and their learning process. Only seven teachers told us about how they were recording videos of their own dialogues with students, and receiving feedback on these recordings from their colleagues to find out where they could improve.

> 'We have [COG] peer-consultation moments here at our school, that we planned ourselves, where we debate together, where we practise, where we watch rec- orded videos.'

However, as stated previously, half of the participants desired additional training and further improvement of their skills regarding career guidance for themselves and their colleagues, without mentioning their schools' plans to organise this. This shows their lack of awareness of this on-the-job stage of the training programme, designed for the teachers to learn with and from each other.

> 'And once again, but that is not just the case with this course, that is the case with every course we've had: it is never completed. Steps are made, and then it dilutes. That is a waste of the time you have put in it. … Well, completed in the

sense that it is not fully trained, practised, it is not implemented, it doesn't have a follow-up.'

Five teachers told us that they started the distribution of their newly gained skills and knowledge on career guidance within their schools by, for example, organising training days for teams of teachers or planning meetings with their managers to discuss COG. However, after being asked about their wishes and ambitions in the area of career orientation and guidance, seven participants told us they desired spreading of their own school's renewed vision and/or policy on career orientation and guidance among their colleagues. A school-wide distribution of the new skills and knowledge on career guidance was also a frequently indicated wish (12), as well as the distribution of the newly gained skills and knowledge by the participants to their own team of teachers (four).

> *'Actually it is just like: we are doing our own things, but for this sort of thing you just have to make space. Maybe in the team meeting, to draw attention to it. If not, there is a transition that everybody is going to do in his own way. So that might be helpful, more uniformity as a whole.'*

> *'The ambitions within our team are that we all will conduct the dialogues with the student in the same way. The skills that I gain now as school coach must work as a snowball effect within our team and to other teams and departments within our school.'*

The differences between the perceptions of the priority and ideal forms of career orientation and guidance of the teachers and their colleagues became clear as we asked about dilemmas or obstacles experienced since the start of the project. Sixteen participants told us that the priorities of their colleagues lay with teaching their subject specific classes instead of guiding career development, and that some colleagues did not have the abilities to be an empathic and patient guide for their students. Apparently there was no shared understanding of or supported vision regarding teachers' role in guiding students, among the interviewed teachers and their colleagues.

> *'Many people in secondary vocational education … teach their subject as part of the future profession. And yes, they think: if they [the students] don't want to do it, they don't. Well, I think quite differently about it, and fortunately a lot of other people think differently.'*

It seems that the collective learning process, as designed by the project, was at this point limited to the two-day off-the-job training. However, most teachers participated with colleagues from different teams of their schools, instead of the intended teacher team as a whole. The on-the-job stage of the training programme, designed for the teachers to learn with and from each other at their own work place, had mostly not taken place (yet), despite their specific wish for a follow-up training and a school-wide implementation.

Transformational leadership

According to the timeline of the project every participating school should have been in possession of a newly developed vision and policy on career guidance or at least working on the realisation of such by the time of the conducted interviews. This vision and policy development was the responsibility of the project managers. During the interviews seven teachers talked about the existence of their schools' renewed vision and policy on career guidance, and how they were involved in the designing of this vision. However, a very large amount of the teachers did not discuss the existence nor the development of their schools' renewed vision on career guidance, which should provide the students with stronger career learning environments. Furthermore, when asked about their ambitions or aspirations with regard to career guidance, 13 participants stated that they had a wish for clarity regarding the school's vision and policy on career guidance. Some of them (four) specifically desired explanation of the school's vision on career orientation and guidance when asked about ambitions and aspirations, and others (six) wished for elucidation for teachers as well as students on the school's policy and structure regarding career guidance. Three teachers wanted clarity on both the vision as well as the structure.

> *'The thing I missed since the moment I started career guiding …, in policy terms I have always missed thinking and discussing together about: what goals do we want to achieve as a school, and how are we going to do that?'*

Nine teachers told us they participated in the project because they signed up themselves. However, 32 teachers told us they were asked or sent to participate by their managers, mostly without a dialogue beforehand on the subject of their expectations and mutual consent.

> *'What do you want with me exactly? I have asked that question within our team, a team meeting, and the team leader said: 'Yes, no, I understand your question but I can't answer it.''*

More than half of the interviewed teachers (27) discussed their unawareness of the form, goal and priority of the project. They spoke about the lack of introduction surrounding the programme by their managers beforehand, even when they directly requested more information. The term 'top-down' was often used by the interviewed teachers. Furthermore, they appeared to be unaware of the training programme being a part of a bigger project.

> *'On the one hand: pleasant, always interesting, I am open to professionalisation. On the other hand, I think: yes, if they find it important they at least could have sent us an email about it or something. Or a memo or a short conversation with our manager about the background of it.'*

The most important and consistently mentioned obstacle for implementing COG at the schools is the perceived lack of adequate facilitation in the form of time and money. Thirty-two teachers feel that teaching their classes and everything that comes with it takes all of their time, and there is little room for development and change. Or, as one participant put it:

> *'You can organise anything, but organise time as well. And I also know that more and more in less time needs to be done. But let's be honest, educating students is our core business.'*

Apparently, the teachers felt insufficiently informed about the COG/SVE project, the consequences the project had on their schools' vision and policy on career guidance and the reason why they were participating in the training programme. They explicitly wished for a clear vision, more facilitation and support; responsibilities of the higher and middle managers.

Conclusion and discussion

The aim of this study was to investigate the influence of the project COG/SVE on the creation of strong career learning environments in SVE. Stimulating students to gain real life (work) experiences, enabling dialogues about these experiences and allowing them to make choices helps students to develop career competencies and prepares them for their lifelong careers. The COG/SVE project aims to create such a strong career learning environment at the participating schools, by offering both a training programme for teachers and professional guidance regarding the development of a renewed vision and policy for the schools. Based on the literature, it is expected that reculturing within the schools requires a collective learning process of the teachers, the key figures in strong career learning environments, guided and enabled by a transformational leadership style.

The results, as discussed in this chapter, indicate that a process towards a strong career learning environment had started, on the level of the career dialogues between teachers and students. However, the potential for reculturing was not (yet) developed or being utilised. Since the start of the training programme most teachers felt more confident about their skills to conduct a career dialogue with their students, even though more training for themselves and their colleagues would still have been highly appreciated. However, the teachers did not mention the other part of the project, namely the development of a renewed vision and policy on career guidance for each school for a more practice- or inquiry-based curriculum. It seems that the teachers were mostly not involved in, and more so, were not aware of this development, and therefore, uninformed about the training programme being part of a bigger, school-wide project.

Furthermore, the interviewed teachers hardly spoke about the follow-up phase of the training programme, which in many cases was supposed to take place at the schools by the time of the interviews. Some teachers even specifically expressed their wish for a follow up phase. The plans and activities for the spreading and embedding of COG within the educational institutes appeared to be largely unknown amongst the interviewed teachers. The intended collective learning process was apparently limited, during the off the job as well as the on the job stage of the training programme, which is a possible explanation for the frequently differing priorities and vision concerning students' career development, amongst the interviewed teachers and their colleagues. Moreover, re-marks on the phase of collectively developing a shared vision by the teachers and their colleagues was often brought up by the teachers themselves during the interviews. However, when it was brought up, they mostly spoke about the absence of a clear vi-sion regarding career guidance. In fact, an explicit wish for a clear vision on the renewed strategy for career orientation and guidance was often discussed. A lack of clarity about the project was recurrently evident as many teachers did not quite know why they were asked or sent by their managers to participate in the training programme. Therefore, it appeared that the managers did not stimulate the teachers to participate and profes-sionalise. Support in the form of individual explanation on the reason for participation was non-existent. This lack of developing a shared vision and individual support indicat-ed the absence of a transformational leadership style at the participating schools of the COG/SVE project. Moreover, practising and distributing the skills and knowledge gained from the training programme (the on-the-job stage), as well as involvement in the de-velopment of a renewed vision and strategy on COG was not organised for the teachers at this point. This too showed the absence of engaged leadership in the innovation, and the need for involvement of the directors and managers, in a transformational manner, to stimulate developing and spreading of a renewed vision on COG.

Based on the assumption that reculturing within the schools requires a collective learning process of the teachers guided and enabled by a transformational leadership style (Lodders 2013; Lodders & Meijers, 2017), we conclude an absence of both condi-tions, that may have resulted in a stagnation of a possible culture change towards strong career learning environments in vocational education. These findings correspond to the work of Fullan (2007) and Lodders (2013) who argued that co-creating new and shared meanings implies collective learning of teachers, who strive together for com-mon learning and/or working outcomes. The building of an organisational vision which directs this process is one of the characteristics of a transformational leadership style (Lodders 2013; Ten Bruggencate 2009). The results of this study indicated that both collective learning as well as a transformational leadership style was not experienced by the teachers, which is a possible explanation for the feelings and expressions of confu-sion and obscurity. Transparent and clear leadership was needed and specifically wished for. Therefore, we suggest that the goal and strategy of the reculturing must be trans-parent and clear, for all those involved.

Implications, limitations and future research

The practical implications derived from this study focus on the importance of creating a working environment in which teachers can learn together, and create a collaborative culture where a shared vision on career guidance is developed. This can take place on a team level; facilitating and guiding teams of teachers of certain sectors or subjects in articulating their common vision and goals is a first step towards the new culture. Therefore, clear communication between the teachers and their managers on the COG/SVE project and the school's goals and strategy for constructing a career learning environment is advisable. Furthermore, the project COG/SVE purposely did not directly involve the managers in the innovation process, to let teacher teams autonomously develop their vision and plans regarding career guidance. However, this mostly resulted in a lack of facilitation, organisation and direction. More involvement of the managers in the innovation process aimed by the project is highly advisable.

Due to a limited topic list used in the interviews and encouraging teachers to speak freely, the interviews differ in terms of discussed topics, length and depth. Although this causes difficulties with comparison, we believe this is simultaneously a strength of the study since the teachers were able to talk about topics they felt to be of importance. Another methodological limitation is that all of the teachers participated voluntarily, which could be grounds for a bias in the results. We tried to partly overcome this bias by personally inviting teachers with varied and extraordinary answers on a previously completed questionnaire concerning motivation for the training, to participate in our sample. Furthermore, 12 of the 50 interviews took place at or just before the second off-the-job training day, 21 interviews within a month (one to four weeks), and 17 interviews took place more than a month after the second training day. Presumably, for at least 12 teachers this is too early in the process of the COG/SVE project to experience any visible results and speak of actual changes in the learning environment. However, in this study we measured immediate (changes in) plans and ambitions regarding career development, initiated by the project. Longitudinal research with within person analyses would gain insight into the relationships between involvement in vision building, experienced support and stimulation by the managers, and engaging in collective learning.

Appendix 1. Coding schema

Table 1. *Coding schema*

Codes	Sub-codes	
1. Changes regarding COG at schools		
	Spreading among colleagues	
	Follow up after off the job	
	Content of dialogues (more) COG	
	COG pilots	
	Scheduled COG-lessons	
	Vision document COG	
2. Utility of COG		
3. Skills for COG		
	Important skills	
	Training days were desirable	
	Improved dialogical skills	
4. Results of COG		
	Action lies with student	
	Clarity for student	
	Still too early to see	
	Flow back drop outs	
5. Wishes or ambitions for COG		
	Continuity PVE-SVE	
	Clarity	
		Clear structure
		Clear vision
		Clear distinction COG and study counselling
	Facilitation and time	
	Career oriented admission	
	More autonomy for students	
	Methods and instruments COG	
	Involvement parents in COG	
	Scheduled lessons COG	
	Training and improvement dialogical skills	
	Embedding of COG	
	Distributing of COG	
	Follow up on COG	
6. Dilemma's and obstacles for COG		
	Other priorities of colleagues	
	Lack of facilitation and time	
	School size	
	Tired of training / innovations	

Codes	Sub-codes	
7. Professionalising and teachers' own career		
8. Leadership and role of management		
	Signed in by who and how?	
		Asked to participate by manager
		Signed in by manager
		Signed in by self
	Goal or priority unclear	
9. General comments on project		

Chapter 3

Progressing towards a strong career learning environment

Abstract

To prepare students for the flexible labour market of nowadays, schools are increasingly acknowledging their responsibility to guide students in their career development. The project 'Career Orientation and Guidance in Secondary Vocational Education' was developed in 2010 to encourage Dutch schools to initiate and/or continue the creation of a strong career learning environment for their students. Central in this learning environment is a dialogue with the students, where meaning is attached to concrete experiences with work. This longitudinal study is designed to gain theoretical and practical insight into the influence of the project. Results show that, although the school's vision on career orientation and guidance is clear to the teachers, it is not supported by all of them. It appears that the renewed vision is imposed on the teachers, and this absence of a shared and widely supported vision appears to withhold the teachers and the project managers to engage in collective action.

Most careers do not develop within clear boundaries anymore and, therefore, are to a large extent unpredictable (Arthur, Khapova, & Wilderom, 2005; Pryor & Bright, 2011). To prepare their students for a flexible labour market, schools are increasingly acknowledging their responsibility to guide students in their career development (Sultana, 2004). They embrace the idea of developing different skills that are needed for meeting the demands of the labour market, such as the ability to show flexibility based on commitment to work and commitment to the employer in changing times (Hillage, Regan, Dickson, & McLoughlin, 2002; Lafer, 2004; Schulz, 2008). This embracing happens, however, without realising that such skills require a different learning environment than when the focus was on traditional technical competencies (Payne, 2000; Smith & Comyn, 2004). As a result, the aim of school-based career guidance is still mainly on helping students towards their academic achievement, and not on helping them to construct their career wish and prepare for their work roles and career competencies after their education (Winters, 2012).

Students in Western Europe are increasingly dependent on career counselling services that schools provide, since the delivery by an external service is mostly eliminated (Hooley, Watts, & Andrews, 2015; Hughes, Meijers, & Kuijpers, 2015). However, most schools do not have the financial means to provide students with career guidance by professional career counsellors. Therefore, teachers in Dutch vocational education have to act as career counsellors, mostly without receiving suitable training and support to do so (Oomen, Van den Dungen, Pijls, & Egelie, 2012). This role is found quite difficult by teachers (Mittendorff, 2010; Winters, 2012). Consequently, students do not receive the guidance they need to become successful in directing their own career on the current labour market.

To provide more training for teachers, and – more generally – to boost the existence of a career learning environment in vocational education, in 2012 the Dutch Ministry of Education financed the national developmental project 'Career Orientation and Guidance in Secondary Vocational Education' (COG/SVE). In this chapter we present data from the first and second measurement of our longitudinal research project into the effectiveness of this national project, regarding the creation of a so-called 'strong' career learning environment.

Strong career learning environments

Kuijpers, Meijers, and Gundy (2011), Kuijpers and Meijers (2012) and Meijers, Kuijpers, and Gundy (2013) suggest that a learning environment that prepares students for a precarious labour market should focus on the development of particular career competencies and a career identity. Central in this 'strong' career learning environment is a dialogue with the students, where meaning is attached to concrete experiences with work. A learning environment aiming at the development of career competencies and a career identity should therefore be practice-based, and focus on dialogues with the students in which their thoughts and feelings have a central place. Furthermore, it of-

fers students a growing autonomy regarding the choices they make, to develop their ability to give direction to their careers. This learning environment differs considerably from a traditional one by not primarily focusing on information transfer and a mono-logue, and not gearing towards a standard learning route.

Since August 2000, secondary vocational schools in the Netherlands are obliged to offer career guidance services without charging the user, as part of the EU's policy on 'lifelong career guidance' (Oomen et al., 2012). However, strong career learning envi-ronments are still to a large extent missing in Dutch education, including in vocational schools (Hughes et al., 2015). Teachers find it rather difficult to provide career guidance and, more specifically, they find it difficult to conduct reflective career conversations with students (Mittendorff, 2010; Winters, 2012). Research showed that in conversa-tions about work placements teachers talked *to* the student 65% of the time, 21% of the time they talked *about* the student and only 9% of the time *with* the student (Win-ters, Meijers, Kuijpers, & Baert, 2009). The main reason seems to be a lack of teachers' dialogical skills in combination with a professional identity that is focused on transfer of knowledge and providing feedback in a rather monological manner (Winters, 2012).

The most important aspect of the career learning environment, the dialogical cul-ture, is therefore particularly absent. As teacher professional development is regarded to be crucial for educational change (Lieberman & Pointer Mace, 2008), a training on conducting career dialogues with students could be the starting point of a transfor-mation towards a career learning environment.

Project COG/SVE

In 2010 the project COG/SVE was developed to encourage vocational educational insti-tutes to initiate and/or continue the creation of a strong career learning environment for their students. This project was financed by the Dutch Ministry of Education, and implemented by MBO Diensten, a project office that carries out different innovative projects in vocational education. In the project, 37 secondary vocational schools (stu-dents from age 16 up) in the Netherlands receive professional guidance (a) to develop a 'strong' (i.e. dialogical) career learning environment by training teachers in conducting dialogical career conversations, and (b) to underpin this strong learning environment by a well-developed vision and policy on career guidance in schools.

The training programme consisted of an off-the-job and on-the-job stage, because an off-the-job training programme for teachers proved to be insufficient to achieve significant changes in guidance conversations (Meijers & Kuijpers, 2014). In combination with individual coaching and team coaching on-the-job, however, the programme proved to be effective in improving guidance conversations (Kuijpers & Meijers, 2017).

In the off-the-job stage, which took a total of three days with periods of two to four weeks in between, the emphasis was on explaining the theory and putting the theory

into practice in career conversations. In the on-the-job stage, the emphasis was on the translation of the training to the school environment. All teachers in the team took part in a four-session in-school training programme (two individual and two team sessions) with school coaches (teachers that received an extended training programme), using video recorded guidance conversations of the participants as a starting point for learning. Furthermore, the teachers were trained through role playing activities and provision of recent theoretical insights about career dialogues aimed at life designing. The teachers were taught to encourage the students to develop their career competencies by asking them specific questions. Finally, attention was paid to affective components of the conversations. National trainers trained both the school coaches and the teacher teams off-the-job, and they also supported the part of the training that took place on-the-job.

In addition, the participating schools received professional guidance to integrate a student-centred approach in the schools' vision and policy on career guidance. The project guided every participating school in creating a renewed vision and policy on career guidance that offers students freedom of choice and real life work experiences, and is consistent with the values of the individual schools.

Reculturing of schools

The aim of the COG/SVE project was to encourage the creation of a different learning environment for students, from a traditional to a dialogical and career based learning environment. This development asks for a change of the organisational culture of the schools. Peterson and Spencer (1991, p. 143) define organisational culture as 'the deeply embedded patterns of organisational behaviour and the shared values, assumptions, beliefs, or ideologies that members have about their organization and its work'. Therefore, changing a school's culture requires changing these deeply embedded patterns and shared values, which should not be taken lightly (Blood & Thorsborne, 2005). All stake-holders must acknowledge the fact that changing the culture of the school happens gradually over a long period of time, and patience is required (Fullan, Cuttress, & Kilcher, 2009).

Reculturing is a process of co-creating new meanings to situations of ambiguity and uncertainty on a dialogical basis (Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007). Co-creating new and shared meanings implies collective learning and working of teachers (Fullan, 2007). Research has shown a positive relationship between collective learning and teams' performance and innovativeness (Lodders, 2013). Following Lodders (2013, p. 15), collective learning

> *'refers to the work-related learning processes that arise when the members of a collective collaborate and consciously strive for common learning and/or working*

outcomes. Such learning may result in long term changes in skills, knowledge atti-
tudes and learning abilities, or changes in work processes or work outcomes, sig-
nifying development and change respectively.'

In her research, Lodders (2013) constructed a six-phase model for the cyclical process of collective learning, and engaging in the different phases of the model is needed to real-ise shared organisational ambitions. The first phase of this model, establishing a shared vision, is considered as a highly important feature of collective learning, and should not be imposed by authority, but should represent a collective intent and shared meaning (Akkerman, Petter, & de Laat, 2008). Thereafter, the teacher teams generate infor-mation and ideas about the learning process, by means of hypothetical questions and about complaints and errors, drawn from external and internal sources. To establish that everyone in the organisation is informed about this generated information, distri-bution is required. This collective information base is the input for the fourth phase, of the dialogue and dialogical learning attitude, where the generated and distributed in-formation is collectively interpreted. As Lodders (2013, p. 17) describes it:

> *'As multiple interpretations of the information generated and distributed may ex-*
> *ist, 'collective learning' requires insight into the different interpretations by dif-*
> *ferent people, as well as dialogue … aimed at constructing shared meaning. In*
> *this type of dialogue people mutually explore ideas, questions, and potential ac-*
> *tions.'*

The dialogue does not always lead to similar interpretations, but to a shared under-standing that commences organisational actions. The process of imposing this shared reality on the environment, is the phase of collective action. The learning process even-tually has to lead to actual changes in work, where individual members of the collective take action to contribute to the collective goals of the group. Finally, the sixth phase of evaluation and reflection is essential

> *'to close the learning cycle and provide input for subsequent learning cycles by*
> *providing insight into the efficacy of the collective members' behaviours and ac-*
> *tions.'* (p. 18)

The process, the outcomes and the interaction between the members during the learn-ing process are important subjects of the evaluation, as this explicates the nature of the learning process and stimulates future collective learning.

Establishing a shared vision among the members of the collective, the first phase of the collective learning process, asks for transformational leaders who are able to initiate and guide this establishment (Geijsel, 2015). Initiating and guiding the development of a shared vision to direct and inspire the collective within an innovation, is an important dimension of transformational leadership. This leadership style focuses on realising a culture change by creating a work environment in which teachers work together opti-mally and in which they strongly identify themselves with the commonly created goals

of the school (Lodders, 2013; Ten Bruggencate, 2009). Besides the dimension of initiating this shared vision for the future, a transformational leadership style is characterised by intellectual stimulation and individual support. Intellectual stimulation refers to the manager's support of the professional development of the teachers, and the challenge to readdress their knowledge and daily practice. It encourages teachers to question their own beliefs, assumptions and values, and to be critical towards themselves and their colleagues. Therefore, it can improve teamwork by solving individual as well as team problems. Providing individualised consideration and support refers to leaders attending the feelings and needs of individual teachers. By functioning as a role model and coach who delegates tasks and gives feedback, leaders can elevate the potential of each of the team members (Geijsel, Sleegers, Stoel, & Krüger, 2009; Lodders, 2013; Oude Groote Beverborg, Sleegers, & Van Veen, 2015). Transformational leadership can be exercised by individuals as well as by groups (distributed leadership; see Bolden, 2011; Bush & Glover, 2014; Harris, 2004).

Lodders (2013) found that transformational leadership had direct positive effects on the collective learning process of the teachers, as well as an indirect effect via individual learning in interaction. In her research, indications were found that a transformational leadership style influences team results directly and indirectly by stimulating collective learning. Furthermore, it has been found that transformational leadership is positively related to teachers' engagement in professional learning activities and to teachers' motivation for practicing their profession (Runhaar, Sanders, & Yang, 2010; Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). Additionally, research of Thoonen, Sleegers, Oort, and Peetsma (2012) suggests that the dimensions of transformational leadership are important for building school-wide capacity for change and improvement.

Considering culture change to be more effective when transformational in nature (Blood & Thorsborne, 2005), it is argued that a change in the learning environment for students in vocational education requires a collective learning process of teacher teams, guided by a transformational leadership style.

Research aim and questions

This longitudinal study is designed to gain theoretical and practical insight into the influence of the project COG/SVE on the creation of a strong career learning environment. Moreover, this chapter describes how teachers and project managers of these schools perceive the developments in their own learning environment and the learning environment of their students, since the start of the project. Three research questions will therefore be investigated:

1. How and to what extent does the project COG/SVE succeed in starting a process towards strong career learning environments that are dialogical as well as practice- and inquiry-based?

2. To what extent does the project stimulate collective learning of the teachers?
3. Is transformational leadership present to promote the development of a strong career learning environment?

Method

Sample and selection

The results described in this chapter are part of a longitudinal qualitative study, designed to investigate to what extent the project COG/SVE is an impulse for structural and cultural changes in the career learning environment in vocational education. In this chapter we describe the results of the first and second measurement of this longitudinal study, to determine which processes were immediately initiated in the first term after the training days of the teachers.

As part of the COG/SVE project, two central training days were organised for 238 teachers from 20 participating schools in six different regions of the Netherlands over the period of September to December 2013. Over the period of October 2013 to January 2014, all participating teachers were approached for a semi-structured interview at a place and time of their choice. At the start of the first training day, the teachers completed a questionnaire on their personal motivation and aspirations regarding the project, and the existence of their schools' policy and vision on career orientation and guidance. Teachers with highly divergent scores on the questionnaire were personally approached, to realise maximum variation sampling (Miles, Huberman, & Saldaña, 2014). Eventually, 50 teachers from 18 different schools from all parts of the Netherlands agreed to participate. Of the interviewed teachers 33 are female. All teachers participated on a voluntary basis and their anonymity was guaranteed.

In April 2014, the one (or in some cases two) project manager(s) from each of the 37 participating schools were approached for a semi-structured interview at a place and time of their choice. Eventually, 38 project managers of 34 different secondary vocational education schools agreed to participate. Of the interviewed project managers 23 are female, and one of the project managers is also a participant in the teacher sample of our study.

For an overview of the timeline of our study and the number of respondents participating in each measurement, see Table 1.

Table 1 Timeline measurements and respondents in this study

	Measurement 1 Sept-Dec 2013	Measurement 2 Oct 2013–Jan 2014	Measurement 3 April-June 2014
Central training days	N[1]=238 participants		
Teacher interviews		n=50	n=48
Project manager interviews			N=38

[1]N = the total sample, n = a sub-sample of the total sample

Data collection

Teacher interviews. During measurement 2 data were collected by conducting individual interviews with all 50 participating teachers. The interviews were semi-structured, and therefore open for the topics the teachers wanted to discuss. The researchers monitored a list of topics that had to be covered: views on the (collective) learning process in the COG/SVE project, any visible changes in the learning environment, and desires and ambitions for the future in the area of COG. Example questions of the semi-structured interviews are: 'What changes do you see?', and 'What dilemma's or obstacles do you experience?' Because of our interest in the stories of the teachers regarding the development of a career learning environment, the nature of the interviews was open and informal, and the teachers were therefore invited to share their ideas and opinions. Since we are interested in true understanding of the process that the teachers undergo, this interview-method contributes to the validity of the study (Boeije, 2010). The shortest interview took 12 minutes, the longest 56 minutes, with an average of 21 minutes. Almost all interviews (47) were recorded with a video camera, one interview was conducted via Skype (and also recorded), and one teacher answered the questions in writing. One interview was conducted through a non-recorded telephone conversation, where notes were taken during the interview, and these notes were processed directly after. This resulted in 47 interview transcripts, 1 interview version in writing, and 1 interview report. Thirty-eight interviews took place in the schools where the teachers worked, and nine took place at the location of the training days. The first author conducted 36 of the 50 interviews, a second researcher conducted the remaining 14 interviews.

Over the time-span of measurement 3, the first author conducted the same semi-structured interviews with 48 of the 50 participating teachers, to determine any changes in the (collective) learning process and the learning environment after five or six months. One teacher was unavailable due to long-lasting illness, and one other teacher did not participate due to lack of time. During this measurement, seven interviews took place in the schools where the teachers worked, and were recorded with a video camera. The other 41 interviews were conducted through non-recorded telephone conversations, where notes were taken during each interview and these notes were processed directly after the interview. Although these notes are a chronological documenting of events and were processed directly after the interview, the events cannot be encountered more than once, and it is possible this led to a loss of some information. This resulted in seven interview transcripts and 41 interview reports. The recorded face-to-face interviews took between 16 and 56 minutes, with an average of 35 minutes.

Project manager interviews. During measurement 3, the first author conducted 32 semi-structured interviews with 38 project managers of 34 schools. The nature of the interviews was open and informal, but a list of topics was used that had to be covered: the process of creating, documenting and distributing the renewed vision on career

guidance, distributing and embedding the new policy on career guidance, and perceived results of and changes since the start of the COG/SVE project. Example questions of the semi-structured interviews are: 'How is the developed vision on COG established within your school?' and 'What has specifically changed in the schools' policy on career guidance?'. The shortest interview took 22 minutes, the longest one hour and 11 minutes, with an average of 43 minutes. Twenty-eight of the interviews were conducted face-to-face, and audio-recorded. The other four interviews were conducted through non-recorded telephone conversations, where notes were taken during each interview. Accordingly, our study is strengthened through triangulation, by using distinctive data sources (Miles et al., 2014).

Analysis

All of the interview transcripts and reports from the first as well as the second measurement, and with the teachers as well as the project managers, were analysed with the qualitative data analysis programme *Nvivo10*, by use of a bottom-up, iterative, and inductive coding approach (Miles et al., 2014; Mortelmans, 2011). Each of the three data sets led to a unique codebook, constructed initially by the *verbatim* transcribed interviews of each set, and thereafter complemented by the interview reports. Categories and relationships between the categories were formulated by observations of the data, and descriptive codes and sub-codes were given to different categories, for example: 'Changes regarding COG' and 'Leadership and role management'. This adding of codes continued until saturation took place. Strongly overlapping codes were merged, such as 'Distributing in the form of training' and 'Organising workshops'. After the coding and data condensation process we conducted a variable-oriented cross-case analysis, in order to detect themes that cut across cases and to explore differences and similarities between the cases (Miles et al., 2014) for each of the three data sets. The data of the teachers of the first and second measurements were compared to detect differences and similarities in the form and content of the interviews, that indicate a (lack of) process of development between the two measurements. Furthermore, the form and content of the interviews with the teachers, and the emphasised themes within the interviews were compared to those of the interviews with the project managers, to indicate similarities and differences in the way they perceived the process of the innovation.

To determine the inter-rater reliability of the coding process, Cohen's Kappa was calculated. This is a measurement for the agreement between two raters, with measures occurring by chance taken into account. For this purpose, a second analyst was trained to use the framework of the first measurement, and five interviews (10%) were selected randomly for recoding. Cohen's Kappa was 0.82. A third analyst was trained to use the two frameworks of the second measurement, and again 10% of the interviews (respectively 5 and 4) were randomly selected for recoding. For the teachers'

interviews Cohen's Kappa was 0.90, and for the project managers' interviews Cohen's Kappa was 0.87. All three of these levels are considered as acceptable (Lombard, Snyder-Duch, & Campanella Bracken, 2002) to almost perfect (Landis & Koch, 1977).

Results

Career learning environment

A strong career learning environment consists of three characteristics: it is dialogical, practice-based, and provides room for the students to make their own choices. Firstly, we analysed the data to determine whether the teachers and the project managers report experienced changes on these dimensions.

During the first interview with the teachers in 2013, right after the two day training programme of the project, most teachers spoke about their increased conversational skills for conducting career dialogues with their students, although further improvement of these skills was often wished for. Furthermore, 17 of the teachers stated it was too early in the process to see any results with the students. During the second interview with the teachers in 2014 the dialogue with their students was an important topic again. As during the first interview, teachers still felt a need to improve their dialogical skills. The teachers stated that, compared to the first interview, their conversations with their students were increasingly about the students' careers, and some teachers mentioned that they got positive feedback from their students on the way the dialogues were conducted.

> 'Students give back that they found the conversations enjoyable, rather than always talking about achievements. It is a step towards their next choice, which is received positively.'

The topic of the interviews with the project managers, interviewed in 2014, was primarily the formulation of the schools' renewed vision document on career orientation and guidance and the way they were involved in this formulation. These vision documents were mostly focused on the development of the career competencies of students, but in some vision documents the goal of a strong career learning environment was specifically formulated.

> 'Gaining experience, ensuring processing the career competencies ..., which are, in any case, the base. And we have also formulated nine goals to actually implement the vision before 2017. That is what we want to achieve.'

On most schools this vision document was distributed among colleagues. However, the project managers only occasionally (seven) spoke about actually noticing that this vision document made some form of impact on their colleagues, for example, expressed en-

thusiasm or commitment to the innovation. Numerous project managers spoke about developing training and workshops on career guidance for their colleagues, as a result of the renewed vision on career guidance. Furthermore, about one third of the project managers spoke about integrating COG in the schools' curriculum, by scheduling COG classes with exercises focused on real life work experiences and developing the career competencies (four), or by integrating COG exercises in previously existing classes (six). However, except for designing these training and classes, the development of a renewed vision had resulted mostly in plans for implementation, some more specific than others, and not (yet) in actual implementation.

> 'That is a pretty logical step, that you first share the vision within your team and then see how you need to integrate it into your programme, and finally what you need to make it happen.'

> 'We want everyone in the organisation on the same page, but this takes time. We have managed to be able to find each other in this area, but we will see in the implementation of it if this is embraced. It takes a few years to put this on the agenda.'

In conclusion, it appears that the creation of the dialogical aspect of the learning environment had further developed, but the interviewed teachers did not mention a development in the creation of a practice- and inquiry-based curriculum. The project managers, however, were focused on constructing a practice- and inquiry-based curriculum. This indicates the absence of communication between the participating teachers and the project managers, which has led to different perspectives on the COG/SVE project and a lack of awareness about the aspired development of a strong career learning environment with the teachers.

Collective learning of teachers

To structure the results regarding the collective learning process of the teachers, we used the six-phase model of Lodders (2013). These phases include: shared vision, information generation, information distribution, dialogue and dialogical learning attitude, collective action, and evaluation and reflection.

All project managers described the development of a shared vision regarding career orientation and guidance reported in the developed vision documents, which should function as the starting point for the collective learning process of the teachers. However, most interviewed teachers participated in the two-day training programme without being aware of this school-wide vision and therefore there was no 'collective intent and shared meaning' (Lodders, 2013) at the start of the process.

> 'What I want to tell you, well, that might be a bit of how our team responded to this COG training. Well, what would have been convenient … it was more the how

*and why. We were told: then and then you are expected to be somewhere. But
what the reason is? We do not know.'*

During the second interview with the teachers, there appeared to be more clarity on
the form and goal of the project, and on the schools renewed vision regarding career
orientation and guidance. However, the differences in the way teachers and their col-
leagues perceived their responsibility in school-based career guidance was mentioned
as an obstacle for the implementation. Various project managers spoke about these
differences in the teachers' perception of their role as career guides as well, and the
experienced resistance from the teachers during the training on career guidance.

*'We have a population of old teachers who say, well: 'I teach my class, and the
rest of the responsibility lies with the students themselves and with society'.'*

Information generation from internal as well as external sources about this specific
learning process was not often discussed by the teachers during the second interview. It
appeared that most of them were not actively looking for more information on career
orientation and guidance or the COG/SVE project specifically, but we did not concretely
asked them about this phase of the collective learning process and, therefore, we can-
not say whether this information generation took place. However, the project managers
mentioned that they were active in generating information about the COG/SVE project,
but mainly from external sources. MBO Diensten, the innovative project office that
carries out the COG/SVE project, provided a website, and organised conferences and
workshops. MBO Diensten also organised regional sharing-sessions, where the project
managers of different schools could exchange their experiences with the COG/SVE pro-
ject. These sessions were often mentioned by the project managers as an important
source of their inspiration and information. By organising training and workshops on
conducting career dialogues with students and spreading the newly developed vision
document, the information distribution was taking place on a large scale by the time of
the second interview, while during the first interview this distribution was often named
as a wish or ambition. However, in the second interview the teachers still wished for
more training on the COG skills. Furthermore, nearly all of the teachers stated they
experienced participating in the COG/SVE project as a learning process, and most of
them preferred to learn together instead of by themselves, which potentially showed
their dialogical learning attitude.

*'I feel like COG is certainly a learning process, I learn from it every day. For myself
as well; which way do I want to go? What and who do I need?'*

The on-the-job stage, that consisted of individual training, feedback on recorded dia-
logues with students and other forms of peer-to-peer coaching, did not take place yet
at the time of the first interview. However, this phase was increasingly mentioned by
the teachers during the second interview, but this time not just as a wish but as an
existing dialogical feedback activity, where they collectively interpreted the generated

and distributed information. Nonetheless, there appeared to be a great wish for more follow-up on the off-the-job training days.

> *'Communication between the teachers about this would also be nice; we did not have a follow-up moment after the training days.'*

Both the project managers as well as the teachers reported no activities on the last two phases of the six-phase model of the collective learning process during the second measurement. Collective action where the new shared career guidance reality would be imposed on the school environment almost exclusively existed in implementation plans, and evaluation and reflection was not at issue yet since the project and therefore the learning process was ongoing.

In conclusion, at the time of the second interview the teachers of the participating schools were more engaged in collective learning regarding conducting a career dialogue than before, in the form of in school training on conducting career dialogues, but mostly in the form of the increasingly occurring on-the-job stage and developed workshops and training on COG. Following Lodders' (2013) six-phase model of the collective learning process, the last but crucial phases of collective action and evaluation and reflection were not (yet) implemented, since most teachers and project managers were still in the phase of distributing the information and interpreting this together in the form of feedback, workshops and training.

Transformational leadership

Transformational leadership, the leadership style that is argued to establish culture change, is characterised by the elements of initiating and guiding a shared vision, intellectual stimulation and individualised support.

The participating teachers in the first interview were very much in need of clarity on the schools' vision and policy on career guidance; they specifically asked for information about this vision, and did not speak about the existence of the development of a renewed vision document. Furthermore, many teachers stated that they did not get any information about their participation in the training days beforehand by their (team)leaders, even if they asked their managers for explanation. Close to all teachers did not seem to be aware of the training days being part of a bigger, school-wide project. Therefore, there was a great lack of clarity on the form, goal and priority of the project as well.

> *'I think, yes well fine, but what does the school want with this? How important is it to our team leaders? What kind of place will it get? Now we are sent there and yes, I find it pretty vague.'*

During the second interview the teachers spoke about the COG/SVE project and its consequences with increased clarity, except for several of them who still mentioned

being still uncertain about the goal of the project or the way their managers prioritised it. However, most teachers did not feel supported in the innovation process. They felt like their managers are not (sufficiently) concerned with the COG/SVE project, and therefore did not give any direction and facilitation regarding the continuation of the project after the two off-the-job training days, despite the importance of the project to certain teachers.

> *'What happens to many things, is that it is characterised as important, and eventually it dies a quiet death. We are really getting something out of it, so that's a real shame. It is a good tool, but there are other priorities to the management. Too busy with other tasks. There should be more pressure from the management, and a good written plan.'*

About half of the interviewed project managers felt like their school management did not give the innovation of the COG/SVE project enough priority as well, but another large part felt like their management did. However, numerous project managers spoke about their wishes to involve their management more in the process of the reculturing and mentioned their ideas on how to increase this involvement.

> *'We must try to excite, and maybe even organise a workshop for the educational managers. Because I feel that if we as an organisation know what we are talking about and the managers know what we mean, that it will settle better.'*

Furthermore, during the first as well as the second interview most teachers felt a great lack of facilitation in the form of time and physical room for practicing their dialogical career skills. This was mentioned by respectively 36 and 28 teachers.

About half of the teachers of the second interview were asked about the way they perceived their individual qualities and ambitions were taken into account by their managers regarding professional development in general. Most of them (12) found that this was the case, five found that this was certainly not the case, and the few others told us that it depended on the circumstances.

> *'Some [managers] see my qualities and aspirations, and use them, and encourage me, include me in things.'*

Furthermore, most of the interviewed teachers told us they felt like there was enough room for their own professional development at their schools. Overall it seemed like most of the teachers experienced intellectual stimulation from their managers, in the form of support for their professional development regarding COG and in general.

In conclusion, between the first and second measurement interviews with the teachers, there was a positive development regarding the clarity on the form and goal of the project, but the interviewed teachers missed direction, facilitation, and support from their managers for integrating the new policy on career guidance in their schools. Furthermore, half of the interviewed project managers experienced this lack of support

from their management as well, and many of the project managers felt like more engagement from their managers would help the implementation process of the COG/SVE project. However, most teachers did feel like their manager stimulated their professional development.

Conclusion and discussion

Previous research suggests that the creation of a strong career learning environment is needed to enable students developing career competencies and a career identity. To create such a learning environment, collective learning of teachers is argued to be essential. On a management level, transformational leadership could be necessary to initiate and guide the development of a shared vision, which is the start of the collective learning process of teachers. The aim of this study is to investigate the influence of the project COG/SVE on the creation of strong career learning environments in Dutch secondary vocational education. Moreover, we investigated to what extent a collective learning process of the teachers and a transformational leadership style existed.

The results of the two measurements showed that the teachers who participated in the project almost exclusively focused on realising the dialogical aspect of the learning environment, while the project managers aimed for the inquiry- and practice-based aspects as well. Apparently, the schools' vision regarding an integral career learning environment was not adopted by the teachers, despite their increased awareness of the importance of meaningful career dialogues since the start of their involvement in the project. The collective learning cycle (Lodders, 2013) was not fully run through, as the last phases of collective action and evaluation and reflection are not yet reached. The emphasis was on the distribution of information in the form of spreading the renewed vision document and conducting training and workshops on COG, and on collectively interpreting this information through dialogue, by giving each other feedback on conducting career dialogues. The project managers spoke mainly about their *plans* regarding the implementation of the new policy on career guidance. Most of the actual implementation seemed therefore not yet executed.

All project managers spoke about developing and documenting the schools' renewed vision on career orientation and guidance. Therefore, between the first and the second measurement, there was increased clarity on the schools' vision on COG and the aims of the project. However, this vision was not supported by all teachers, as many teachers had different perspectives on the role they and their schools had to play in guiding the students' career. It seemed that most middle and higher managers had neglected to initiate and guide the development of a shared vision -which is an important aspect of the transformational leadership style as well as the collective learning process- as the teachers were not involved in the development. The vision was not constructed and shared by the collective, according to the teachers and the project

managers, since they specifically wished for more involvement and support of the management.

We conclude that the confusion of the teachers between the first and second measurement regarding the clarity of the goal and form of the project, and the school-specific vision on COG was decreased. Although this vision was clearer to the teachers, it was not supported by all of them. It appeared that the renewed vision on COG was developed by the project managers and middle and higher managers, and imposed on the teachers. Since initiating and guiding the development of a shared vision is an important aspect of transformational leadership, this leadership style seemed not to be experienced. Most of the teachers as well as project managers, however, wished for this aspect of transformational leadership. Considering that research suggests that reculturing within the schools requires a collective learning process of the teachers guided by a transformational leadership style (Fullan, 2007; Geijsel et al., 2009; Lodders, 2013; Oude Groote Beverborg et al., 2015), this absence of a shared and widely supported vision on career orientation and guidance appeared to withhold the teachers and the project managers to engage in further collective learning, and eventually, collective action. Therefore, we argue that involvement of teachers in developing a vision is fundamental for full support and adequate collective learning. Determining the goals and direction of the learning process together is likely to be of positive influence on the outcomes. Moreover, involvement of the middle and higher management during the other phases of the collective learning process is advisable, since their facilitation and support seems essential for the reculturing of schools.

Chapter 4

Process description of improving career guidance policy in three schools

Abstract

To boost the existence of career learning environments in Dutch vocational education, the innovation project 'Career Orientation and Guidance in Secondary Vocational Education' started in 2010. In this chapter, we describe the effects of this project on the level of policy formulation and implementation by means of three case studies. Data were collected at three schools through interviews, observations of meetings and teacher training, and analysis of policy documents. We conclude that a dialogue between managers and teachers, as well as among teachers is essential for changes in the learning environment of the students, since formulating a school-wide strategic policy requires communication between the different levels of the organisation, and clear tactical policy requires teacher teams and their team leaders to engage in substantive dialogues about the Career Orientation and Guidance innovation process. Instructional as well as transformational leadership seems to stimulate a dialogical work environment for teachers and their managers, which is necessary for a dialogical career learning environment for students.

In Dutch vocational education, teachers are mainly responsible for career guidance, as the delivery by external career services has been mostly eliminated (Hooley, Watts, & Andrews, 2015; Hughes, Meijers, & Kuijpers, 2015). Secondary vocational education institutes in the Netherlands offer vocational training on four different levels with different duration (one to four years), including work place as well as school-based training. Most Dutch schools do not have the financial means to provide students with career guidance by professional career counsellors. Therefore, teachers in Dutch vocational education must fulfil the role of career counsellors, typically without receiving suitable training and support to do so (Oomen, Van den Dungen, Pijls, & Egelie, 2012). This role is quite difficult for teachers to fulfil, as it requires a different approach towards their students than regular teaching activities (Winters, 2012; Mittendorff, 2010). Furthermore, policy on innovative career guidance in Dutch education is mostly missing (Bakkenes, Oomen, & Meijers, 2002; Meijers, 2001; Hughes et al., 2015).

Meijers, Kuijpers, and Bakker (2006) and Kuijpers, Meijers, and Gundy (2011) investigated under which conditions students (age 12 to 24) were most able to develop career competencies, which are needed for today's labour market and to build a career identity. What appeared the most essential were (a) a practice-based curriculum, where real-life experiences can be gained and choices can be made, and (b) a career dialogue at school and in work placements (i.e. dialogues that teachers have with their students, in which meaning is attached to concrete experiences with work). This learning environment differs considerably from a traditional one by not primarily focusing on information transfer and monologue, and not being geared towards a standard learning route (Den Boer & Hoeve, 2017). Such a practice-based and dialogical learning environment contributes to the use of so-called career competencies (Kuijpers et al., 2011). In higher education, it also contributes to increased motivation for learning, certainty with regards to career choice and a decreased risk of drop out (Meijers & Kuijpers, 2014). However, Meijers et al. (2006) showed that a strong career learning environment was present in only 3 of the 226 classrooms studied.

Oomen (2010) concluded that guidance services in Dutch vocational education are more developed than in general education, but the guidance provided focuses primarily on supplying information about further education. Research by Winters, Meijers, Kuijpers, & Baert (2009) showed that, in conversations about students' experiences in work placements, teachers talk *to* students 65% of the time, 21% of the time they talk *about* the students, and only 9% of the time was spent talking *with* students. The underlying reason seems to be a lack of teachers' dialogical skills in combination with a professional identity that is focused on transfer of knowledge and providing feedback in a rather monological manner (Winters, 2012; Den Boer & Hoeve, 2017).

In 2010, the Dutch Ministry of Education launched the national innovation project 'Career Orientation and Guidance in Secondary Vocational Education (COG/SVE)'. The purpose of the project was to provide more training for teachers, to formulate and implement a clear policy on COG in schools, and – more generally – to boost the exist-

ence of a career learning environment in vocational education. In this chapter, we present results from a study into the effectiveness of this national project on the level of policy formulation and implementation with respect to the creation of a so-called 'strong' career learning environment, by describing the influence on the policy of three schools that participated in the project. In exploring this process, we hope to contribute to the international issue of implementing 21st-century school-based career guidance (Hooley et al., 2015; Hughes, Law, & Meijers, 2017).

Project COG/SVE

In the Netherlands, vocational training in SVE varies in duration (from one year up to four years), school level (from level 1 to level 4, with level 4 being the most difficult) and type of training. A distinction is made between school-based (between 20 and 60% includes practical/workplace training and the remaining time is spent at school) and work-based training (a minimum of 60% includes practical/workplace training and the remaining time is spent at school). The vocational education sector in the Netherlands consists of 66 vocational education colleges comprising multidisciplinary, agricultural and specialised colleges (MBO Raad, 2018).

In 2010, the project 'Career Orientation and Guidance in Secondary Vocational Education (COG/SVE)' was implemented by MBO Diensten, a project office that carries out different innovative projects in vocational education financed by the Dutch Ministry of Education. In the project, 37 secondary vocational schools (students from age 16 up) in the Netherlands received professional guidance (a) to develop a 'strong' (i.e. dialogical) career learning environment by training teachers in conducting dialogical career conversations and (b) to underpin this strong learning environment by a well-developed vision and policy on career guidance in schools.

The training programme consisted of an off-the-job and on-the-job stage, because an off-the-job training programme for teachers proved to be insufficient to achieve significant changes in guidance conversations (Meijers & Kuijpers, 2014). In combination with individual coaching and team coaching on-the-job, the programme proved to be effective in improving guidance conversations (Kuijpers & Meijers, 2017). In the training programme, emphasis was placed on explaining theory regarding narrative career guidance and putting theory into practice in career conversations through using video-recorded conversations of the teachers with their students.

Furthermore, schools were offered support in creating a vision and a policy for the creation of a strong career learning environment that was consistent with the schools' values. In the project COG/SVE, the formulation of a vision and policy was the responsibility of the schools themselves. If requested, schools (i.e. the project managers) could receive guidance from professional experts. This guidance focused on formulating a vision and policy on offering students more freedom of choice and real-life work experi-

ences (e.g. through new guidelines for curricula and creating more room for work placements). Schools were encouraged to concentrate on their own needs, since every school had a different starting situation regarding career guidance. It was hoped that the project managers could persuade their managers (i.e. team leaders, managing directors and executive board) to invest in the learning processes on career guidance and to focus on the formulation of long-term policy and school investment plans. The project COG/SVE focused primarily on the teachers and project managers; management (i.e. team leaders, managing directors and executive board) was not explicitly involved. In this chapter, we focus on the process of formulating and implementing this vision and policy within three schools.

Collective learning

The project COG/SVE aimed for a reculturing of the participating schools towards a non-traditional learning environment for students, where career dialogues were used to attach meaning to experiences between teachers and students, occupied a central role. Essential to this process is developing the values and professional identities of the teachers to be more career oriented than before. An organisational vision to direct the process of knowledge creation, information for those concerned, and some disruption that stimulates the interaction with the environment, drives the collective learning process (Lodders, 2013; Nonaka & Takeuchi, 1995). Lodders (2013, p.15) defined collective learning as

> 'the work-related learning processes that arise when the members of a collective collaborate and consciously strive for common learning and/or working outcomes. Such learning may result in long term changes in skills, knowledge attitudes and learning abilities, or changes in work processes or work outcomes, signifying development and change respectively.'

This collective learning cycle ideally starts with a shared vision or ambition. Thereafter, the teacher teams generate information, distribute this information, and engage in a dialogue on this information to collectively interpret the information, which eventually leads to collective action. Evaluation and reflection on the other aspects of the learning cycle can lead to reengaging in the other aspects, and different aspects of the cycle can occur at the same time (Castelijns, Vermeulen, & Kools, 2013; Lodders, 2013). As the last phase of the cycle is completed, new ambitions can be defined and a new cycle can start. Collective learning is a continuous process, aimed at gaining collectively shared knowledge. Other characteristics that influence the outcome of the phases of the collective learning cycle are shared influence, shared interest, and variety in perspective for engaging in a constructive dialogue on the aimed learning outcome (Castelijns et al., 2013).

Changing a school's culture (i.e. reculturing) requires changing deeply embedded patterns and shared values, and this happens gradually over a long period of time (Blood & Thorsborne, 2005; Fullan, Cuttress, & Kilcher, 2009). Reculturing is a process of co-creating and applying new meanings to situations of ambiguity and uncertainty on a dialogical basis (Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007). Therefore, in order to establish reculturing, the teachers need to engage in an implementation cycle through collective learning for realising the envisioned change, and to develop a shared understanding and definition of the learning process and the knowledge outcome (Gubbins & MacCurtain, 2008).

Educational leadership

Reculturing and collective learning are unlikely to occur without educational leadership. In earlier studies on the implementation of new forms of COG in Dutch vocational education as described in previous chapters, transformational leadership was often lacking and specifically desired by the teachers. In particular, the aspect of developing and communicating a shared vision on the envisioned change process was mostly absent. Besides this vision building, transformational leadership is characterised by two other elements: intellectual stimulation and individual support (Geijsel, 2015). Recent work on educational leadership practices emphasises the effective combination of transformational leadership and instructional leadership (Bush & Glover, 2014; Day, Gu, & Sammons, 2016; Geijsel, 2015). An instructional leadership style is being executed by one expert principal in a directive and charismatic way to establish clear education goals, to control and supervise the curriculum and instruction in the school. Moreover, this style focuses on enhancing the measurable outcomes for students (Bush & Glover, 2014; Day et al., 2016; Hallinger, 2003). While transformational leadership focuses on the goal of improving student learning via teachers, it focuses primarily on the process of how leaders influence their employees. In a mixed mode, instructional and transformational leadership each have their place and seem to complement one another instead of being distinguished. Instructional leadership is characterised as seeking direct influence on the quality of the curriculum and the instruction in the classroom, while transformational leadership seeks to increase the capacity of employees to produce this quality of the curriculum and the instruction. Research by Day et al. (2016) found evidence for this effective leadership integration:

> 'In the effective and improving schools in our study, principals palpably exercised both "transformational" and "instructional" leadership' (p. 252).

This suggests that a strategy where top–down or instructional leadership and bottom–up or transformational leadership work simultaneously on designing and implementing the innovation process can be successful.

Dialogues

Dialogue is a fundamental aspect of collective learning as well, as the members of the collective do not just learn from one another, but need to develop a shared understanding and meaning of the learning process for a successful innovation (Garavan & McCarthy, 2008). The type of dialogue needed for collective learning does not, by definition, seek consensus, but benefits of conflict (Castelijns et al., 2013; Chiva, Alegre, & Lapiedra, 2007). Within an educational organisation, three relevant levels of dialogue can be distinguished: a dialogue between a teacher and a manager; a dialogue between teachers and a (career) dialogue between a teacher and a student (Day et al., 2016; Geijsel, 2015; Gronn, 2009; Hallinger, 2003).

Communication between the higher management of the school (i.e. the executive board and the managing directors) and their teachers and team leaders seems essential to (a) gather information and perspectives for developing a vision on the (culture) change, (b) provide individual support and intellectual stimulation, (c) share their frames and boundaries in the form of a strategic policy and (d) engage in dialogues about the space and autonomy that (teams of) teachers and the team leaders have regarding developing a tactical policy on the envisioned change (Kotter & Cohen, 2002). To be effective, in the strategic policy, the higher management must clearly formulate what the school-wide problem is, and in what direction the solution can be sought (Yorks, 2005). This strategic policy must be feasible and is ideally supported by long-term funding and sufficient staffing (Weggeman, 2015). A strategic policy differs from a vision, as a strategy is more specific in the focal points, timeline, and accompanying actions than the mostly rather ambiguous vision.

Alongside sharing the strategic policy with the teachers and team leaders in a dialogical way, it is up to the teacher teams to develop their tactics collaboratively, guided by their team leaders (Spillane, Harris, Jones, & Mertz, 2015; Weggeman, 2015; Yorks, 2005). In this way, tactics can be constructed on a team level within the frame of the strategic policy. This distinction between strategic and tactical policies is well known in the management literature, but to a large extent neglected in literature regarding innovation in an educational context. The development of the tactical policies requires dialogues among the teachers to construct policies that are unfolded from a shared vision of the team and respond to the needs and wishes of the individual team members so as to eventually to lead in collective action (Lodders, 2013; Lodders & Meijers, 2017). The required dialogues differ from information exchange, as they are essential to build bridges between all the informed individuals. The tactical policies need to be annually evaluated and adjusted, and higher management should regularly inform their employees regarding the strategy. On a management level, feedback should be given continuously on the tactical policy; otherwise the implementation of these plans will not endure. Furthermore, dialogue between the higher management (i.e. the executive board

and the managing directors) and team leaders and teachers is beneficial after evaluation of the tactics in order to agree on adjustments within the strategy where needed.

Aim and method

Research questions

The aim of this study is to describe the policy-shaping process and implementation in three vocational education institutes that participated in the project COG/SVE. We conducted three case studies to gain deep insight (a) into the innovation process initiated by the project regarding the formulation and implementation of a policy on career guidance and (b) into the role of dialogues and leadership during this process.

We aim to answer the following research questions:

1. To what extent is a clear distinction visible between strategic policy and tactical policy?
2. To what extent are dialogues conducted between managers and teachers, as well as among teachers?
3. To what extent does the dialogue between managers and teachers, as well as among teachers, contribute to the realisation of strong career learning environments?
4. Which leadership style stimulates the collective learning process?

Data collection

Our research design was multiple case, descriptive and theory testing (De Vaus, 2001; Wester & Peters, 2004). We strategically selected three schools that participated in project COG/SVE since 2012 on a voluntary basis, in order to establish a diverse selection representing many of the other cases in the project (Seawright & Gerring, 2008). School 1 was selected because of its relatively isolated project group that worked on the COG policy alone. School 2 was selected because of its strong efforts to involve the managers (i.e. the team leaders, the managing directors and the executive board) in the dialogues on COG. School 3 was selected because of its priorities in attuning policy and practice on different levels of the organisation. As we were familiar with the chosen schools and their strongly different contexts (they had participated in the earlier studies on the project), we knew the population and could select our cases based on their suitability to answer our research questions. This context-sensitive case selection, therefore, increased the validity of our study (Poulis, Poulis, & Plakoyiannaki, 2013).

All data collection was executed as part of the longitudinal research project into the structural and cultural effects of the project COG/SVE. Since this research project started in 2013, we were familiar with the circumstances of the three schools regarding COG, and an open and informal relationship with the teachers and project managers

was already established. We evaluated the situation of each school by conducting semi-structured interviews with project managers, participant observation of meetings regarding the strategic and tactical vision and policy, and participant observation of training sessions for teams (see Appendix 1 for an overview of the collected and analysed data).

The nature of the semi-structured interviews with the project managers was open and informal, but a list of topics was used that had to be covered: the process of creating, documenting and distributing the renewed policy on career guidance, and the perceived results of and changes since the start of the project COG/SVE. Furthermore, various aspects of career development and a career learning environment were discussed using a schema (see Figure 1). Example questions of the semi-structured interviews are: 'What aspects of the schema should be prioritised in the process of COG policy formulation?', 'What is still needed on these aspects?', 'How is the developed vision on COG established within your school?', 'What is the role of your manager in this process?', 'With whom do you talk about COG, how, and what are the consequences of these conversations?', and 'What has specifically changed on the aspects of career development and the learning environment?'.

The interviews took 52, 39 and 54 minutes, respectively, were digitally audio recorded, and transcribed *verbatim*. Direct observations of project group meetings and training sessions allowed a closer investigation of dialogue, leadership involvement and teacher work in progress, which became a useful complement to the interviews. Field notes were taken during observations, and all field notes resulted in reports of the meetings. Furthermore, we studied policy plans regarding COG of each of the schools to find out if strategic and tactical policy was developed. These data were collected from March 2015 to December 2015. In all three cases, the concluding, semi-structured interviews with the project managers were held in May or June 2016.
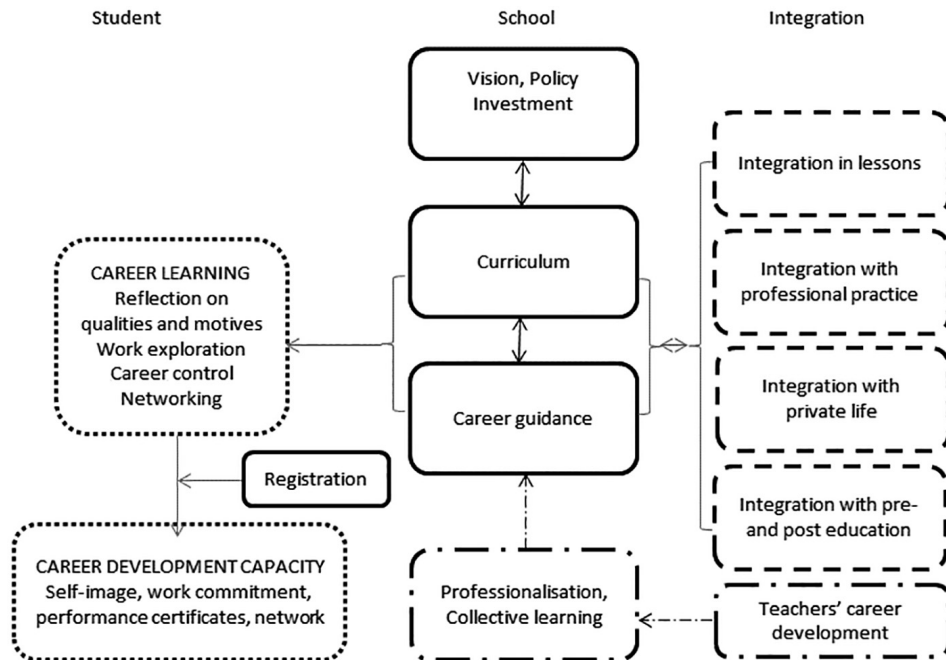
Figure 1. Schema used as interview guideline: Aspects of career development and learning environment.

Analysis

To undertake the coding process, empirical data from the three case schools were ana-
lysed using within-case and cross-case analyses. Each observation and interview was
studied by the authors in order to identify prominent themes or patterns. Thereafter,
the observations, field notes and interview transcripts were analysed with the qualita-
tive data analysis programme *Nvivo11*, by use of a bottom–up, iterative and inductive
coding approach (Miles, Huberman, & Saldaña, 2014; Mortelmans, 2011). *Nvivo* is an
often used qualitative data analysis programme in educational sciences, since it allows
the user to conduct constant comparison analysis (Leech & Onwuegbuzie, 2011; Mor-
telmans, 2011). To analyse our qualitative data, categories and relationships between
the categories were formulated by observations of the data, and descriptive codes and
sub-codes were given to different categories. Examples of codes are: 'Obstacles policy
implementation', 'Conducted dialogues', and 'Management support for collective learn-
ing'. This adding of codes continued until saturation took place. Strongly overlapping
codes were merged (see Appendix 2 for the final coding schema). Within-case analysis
was performed by including all interviews and observations from one school. Cross-case
analysis was conducted, and variations between schools were identified and their im-
pact on the results of the innovation process was described (Miles et al., 2004; Wester
& Peters, 2004). During and after the phase of analysis, meetings between the authors
were regularly planned to discuss the methods, procedure, and (preliminary) findings.

Finally, we studied the policy plans regarding COG of each of the three schools to discover if, and to what extent, strategic and tactical policy was developed. If possible, we analysed the policy documents in *Nvivo11* as well, using the same method and coding schema as the analyses for the observations and interviews. Policy documents that were received in print or in Portable Document Format (PDF) were thoroughly read and marked to link segments to the categories developed in *Nvivo11* during the analysis of the other documents, observations, and interviews.

Results

School 1

Dialogues. The implementation of COG at School 1 was undertaken by a small group of teachers and policy makers. This group focused on writing a renewed vision on career guidance and sharing this vision with the managing directors of the four different locations. This group of five described themselves as devoted, and almost all of them finished the off-the-job training days of the project COG/SVE. They met on a regular basis to work on the career guidance vision and consequently engaged in dialogues regarding COG together. However, the dialogues did not extend much further than this group. This process of documenting a vision document and thereafter trying to share it with the managing directors of the four locations had occurred twice during the project COG/SVE, with an interval of two years between each attempt.

The first time, the vision was barely spread; it was just shown to the director of Educational Development for signing. The second time, the project manager gave the vision document to the director of Educational Development, and the director was supposed to communicate this vision with the managing directors of the different locations. This mirrored the first procedure, and the vision again failed to spread within the school. They did, however, try to inform the managing directors of the different locations of their renewed vision, but there seemed to be no dialogue between the members of the project group and the managing directors. The project manager of the project COG/SVE of School 1 emphasised that she was disappointed in the spreading process; she said that the vision document did not leave the desk of the managing directors, and it was not shared with the teacher team leaders.

> *'It is again a document that remained with the managing directors too much. Not enough shared with the team leaders, not enough. But well, that says something about our project group as well, I think, that we might did not do enough ourselves, did not put enough effort in it and so on.' (Project manager, School 1)*

She recognised this was her responsibility as well, and she had started communicating more about COG through forwarding newsletters of the project to managing directors,

team leaders, intake coordinators and other stake holders. Again, this was informing them about COG, not engaging in real dialogues on the topic.

The teacher team leaders were not well informed by the managing director of their location on the school's vision on career guidance or the project COG/SVE the school was participating in. As a consequence, they were unable to communicate this with their teacher team. Moreover, they did not feel it was necessary to do so. During the observed team sessions, the team leaders were mostly absent and therefore unable to answer the many questions on the how, why and who of the training in the context of the innovation process. For the teams that participated in the in-school team sessions on COG with an external trainer, there was a significant lack of clarity, and many questions were raised.

> 'Multiple sessions are planned for us, but for me it is completely unclear what we are going to do with this information.' (Teacher, School 1)

Dialogue among the teachers within the teams was not conducted. This was noticeable as they mostly asked the trainer a lot of questions about the school's specific form of (implementation of) COG, which the trainer had to answer with: 'That is something you should discuss with your team leader'. One team leader, who was present at the start of the team session, told the team that she was not sure about the direction the school wanted to take on COG. This raised even more questions with the teachers. It appeared that none of the team leaders or teachers seemed to be informed about the school-wide vision document, constructed by the project group.

Collective learning. Learning about COG on School 1 was mostly organised through team training on COG, which was provided by an external trainer. Since the policy of this school was that a desire for this training (or a desire for specific tools, guidance methods, etc.) had to arise from the teams themselves, it was up to the teams to initiate their team sessions regarding COG. This occurred on a very small scale. Further, the teachers of the teams that did participate in the observed organised training sessions had clearly not signed up themselves; there was barely any knowledge of COG beforehand. Constructing a shared vision with the team, which is the first phase of the collective learning process, was attempted by the external trainer, but because of a lack of awareness of a framework of reference and expected direction, this team-specific vision failed to be established during the team sessions. Therefore, the other phases of the collective learning process were not reached and there was no sign of collective action after participating in the training days.

Strategic and tactical policy. School 1 adopted a bottom–up approach, which was explicitly emphasised by the project group.

> 'Thinking the other way around, which is very propagated here at school, is entirely how we want COG to settle in the teacher teams. To let the teacher teams ask for it [training sessions] themselves.' (Project manager, School 1).

This meant that the teams had to ask for COG training themselves and choose their own method of COG. Method refers specifically to several commercial and external developed lesson designs, and teams had the liberty to choose one themselves. This school wanted the teams to come up with their own tactical policy, however, this was requested by the school without offering a strategy. The project group developed a vision on career guidance, but this vision was rather abstract, with focal points like: 'Career development takes place at many moments, where students can give meaning to experiences regarding their education or work'. Although this is a goal that is emphasised during the general off-the-job training days for the project, it rarely leads to concrete actions or steps. Furthermore, due to limited outreach of this vision document, teachers and their team leaders were barely informed about the school's participation in the COG project, and the change process the school agreed to undergo. During several team sessions on COG, guided by an external trainer, this absence of direction led to many questions from the teachers concerning (among other things) the motivation, the necessity and the intended form of COG. The team leaders also appeared to have no answers to these questions; they were not aware of the existence or the content of the vision document and were therefore unaware of the direction they needed to guide their team towards. One team leader said during a team session on COG:

> 'What is it that we do with this, school-wide? I feel like it is a bit unsettled. The direction is not yet clear, there is also no policy or vision or something.' (Team leader, School 1)

School 2

Dialogues. School 2 also made use of a project group. This group consisted of four policy makers and trainers, who were all trained as school coaches within the project and were determined to inspire their school to develop towards a career learning environment. They met often to discuss their policy on COG, and their meetings were well structured and time efficient. Their offices were on the same floor as some of the managing directors, indicating that there was little physical distance between the project group and their managers. Since the project group believed that dialogue and information sharing between them and the managing directors of the different departments was a condition for succeeding in spreading COG through the school, their focus was on organising a two-day COG training for all the 25 managing directors of the SVE departments of the school.

> 'It was our ideal that we would bring people into a different mind-set, that this is the approach for a dialogue, a progress review or a performance review or however you want to call it in this organisation. That results in a very different perspective than if you keep persisting in your own way.' (Project group member, School 2)

Despite the ambitions of the project group, they felt disappointed by the participation of the managing directors during their specifically organised training days. About half of the managing directors participated in a short workshop version of the two training days. Many of them cancelled or did not sign up at all. The project group tried to arrange a meeting with the executive board to talk about the lack of participation. They wanted to discuss the agreements about participating in the training and how to deal with the failure to keep to the agreements. One project group member stated:

> *'Subsequently I did not notice what I hoped for, firstly that they [the managers] would adopt this, but secondly that it would help to enthuse teachers within their own location for career dialogues, but I did not notice any difference on that.' (Project group member, School 2)*

In addition, training sessions and workshops were also organised for teams, individual teachers and intake coordinators (this school had no team leader level). However, teachers needed to sign themselves up for the training, which happened rarely, and the intake coordinators frequently cancelled their participation. Therefore, we can conclude that in this school, the dialogue between teachers and managers (i.e. managing directors and executive board) and among the teachers was partly absent in spite of the effort the project group made to organise a dialogue between them and the 25 managing directors of the school.

Collective learning. School 2 intended to train all teachers, managing directors and the executive board, which was a total of 1073 employees, between 2014 and 2016. This training consisted of four half days; teams could sign up together, or teachers, intake coordinators and managers could sign up individually. The school organised multiple workshops and presentations on COG during professional development days for teachers and managing directors. These sessions were carried out by external trainers with the aim of providing information on the concept and creating enthusiasm for extended training. Teachers that conducted intakes (i.e. admission talks) with new students were obliged to participate in the training. However, despite their obligation, they frequently cancelled their participation in COG training.

> *'They all should participate in a COG training, but they 'must go', and as a consequence no one shows up. There is something fundamentally wrong. A culture of 'saying yes, doing no'. They apparently do not recognise the importance.' (Project group member, School 2).*

Furthermore, in spite of their effort to strike up enthusiasm for, and organisation of, workshops and trainings, by 2016 only about 200 of the intended 1073 employees had participated in a (part of the) COG training. A project group member stated that the COG innovation was a laborious process, considering that employees need to be open and willing to engage in a collective learning process towards a career learning environment. Otherwise, it has no impact, according to him. The intention was that training

all managing directors would stimulate their enthusiasm and vision for COG, which would – in turn – stimulate the willingness of the teachers to participate. However, since approximately half of the managing directors participated in parts of the COG training, and the intended number was therefore not reached, the project group continued trying to encourage the teachers by drawing attention to the training offer.

> *'It really is micro work. It is not one big movement, you can forget about that, it does not work, because you would be blasting down from your fortress. No, you have to try to find the people, and make that connection, and that is what we are doing in this way.' (Project group member, School 2)*

Strategic and tactical policy. The project group of School 2 developed a vision document with focal points and ambitions shortly after the start of their participation in the project. In 2014, a school-wide vision and implementation plan was documented, which included concrete steps to start 'train-the-trainer' training, as well as training for (teams of) teachers. This plan focused strongly on training the teachers of the school to conduct meaningful career dialogues. The implementation started with a two-day training of the executive board and the managing directors (the higher management), and thereafter teachers were offered to participate in the training. The final step involved the teachers training their colleagues in conducting career dialogues. Teachers who conducted the intakes with their new students were obliged to participate in the training. However, this training process stagnated at the first step, as the executive board and the managing directors mostly did not participate in the training that was organised for them. Consequently, the train-the-trainer approach did not advance. Due to these issues, the managing directors were mostly unaware of project COG/SVE and the content of the training, as well as the direction the school wanted to take regarding career guidance. This lack of awareness by the managing directors, who were responsible for developing policy on COG in their own departments according to the project group, led to a lack of knowledge and priority on the subject throughout their departments.

> *'This places teachers in an awkward position, as they are handed things according to paradigm A by their managers, but they are expected to approach their students according to paradigm B. We still have a lot of work to do there.' (Project group member, School 2)*

In the earlier developed implementation plan, it was unclear what the steps were after training the teachers in conducting career dialogues. There was no strategic policy that could offer a framework for the departments or teams to operate in. One of the project group members said that the responsibility for implementation lay with the teacher teams, but they seemed to be unaware of the importance. According to one project group member, this was a consequence of a lack of educational leadership:

> *'In the new organisational structure they ask for more educational leadership from the directors, because that does not really happen right now. By that I*

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> *mean: you can conduct dialogues with the teams and demonstrate the importance of what is needed. The responsibility now lies with the teams, who apparently don't see the importance.' (Project group member, School 2)*

In 2016, members of the project group spoke about a new implementation plan regarding COG, which was in the process of being written by the new project manager. When we repeatedly asked for this document in early 2017, the project manager did not respond to emails. Another project group member told us that this document was never finalised and the implementation process of COG had, therefore, stagnated.

School 3

Dialogues. At School 3, dialogues on different levels within the school took place. First of all, dialogues took place between the COG/SVE project manager, policymakers, work placement supervisors, team leaders and teachers to establish the renewed vision and policy. Different sessions were organised to collect visions and ideas on a renewed career guidance policy. When this was developed and documented by the project manager and policy makers, they gave it back to the team leaders and teams for their feedback. Managing directors of the four departments were involved in this process as well, through requesting feedback and eventually giving final approval for the policy. This method of consultation at School 3 was maintained in different situations as well, and consequently, it was evident who engaged in which dialogues and with whom.

> *'It has been quite well structured with us, and you feel supported by this structure. So COG is addressed the same way as many other cases, since we have the same method of consultation, the same contact persons. So in that way I think, it is just, it stands strong, and that is easy for me too. If something does not work, I know who to consult.' (Project manager, School 3).*

After collectively developing a renewed strategy on COG, it was up to the different departments to fill in this strategy as suitable for their students. According to the project manager, a dialogue between her and the school coaches about the policy on COG continued on a regular basis, to ensure the policy fit the daily practice.

> *'I noticed that my contact with the school coaches was diluting a bit, because it was all going quite well, A few weeks ago I got a message from [school coach]: hey, we have not talked to each other in quite a while and we as school coaches feel like we miss the connection with the policy department. I said: yes, that is true, you are absolutely right. So now we have agreed again to sit down together at least two or three times a year, and talk to each other to keep that connection between policy and school coaches.' (Project manager, School 3)*

In one department of School 3, a dialogical culture was evident. The team of teachers seemed to engage in a dialogue with each other about the innovation process on a

regular basis. They brainstormed, gave each other feedback and even reflected on the learning process after the training days. Furthermore, they were planning to organise peer-to-peer coaching on COG. This team was evidently focused on cooperation; according to some teachers and the team leader, they approached each other with questions, which stimulated a dialogical culture. This dialogical culture seemed to be very important to them, since a cooperative and dialogical work style is a requirement for new colleagues.

> 'With new team members it works the same. They are asked questions, instead of told how it must go.' (Teacher, School 3)

The team leader claimed to be merely facilitating, considering the self-steering nature of the teacher team.

Regarding the dialogue between teachers and their students, not many changes in their learning environment are yet perceived by the teachers and project manager. Some teachers of the observed team spoke about focusing on COG in their mentor lessons in small classes and their plans to conduct individual dialogues with their students.

Collective learning. Learning of School 3 regarding COG was mostly organised through team training. One of the school coaches of this school met with the different teams of teachers to conduct 'teaser training': a short workshop on COG where teams and their managers are given a taste of what the elaborate COG training consists. Thereafter, either school coaches or trained team leaders provided multiple day training, which was tailored to the types of students and teachers operating in that department.

One team participated in a three-day training on COG provided by a school coach. At the last training session, the team brainstormed, evaluated and made plans for reflection on the learning process. Further, the team planned to organise a recurrent meeting for sharing experiences with career guidance and other educational activities. With this team, the team leader felt like she provided the terms and was supporting the team, but the teachers were responsible for their own performance. This became apparent from a special request from this team for more accountability to tighten the framework in which they were operating. Other teams did not desire more accountability; however, the other teams did ask the project manager for specific facilitation and support during the innovation process to help them realise the strong career learning environment of their students.

Strategic and tactical policy. This school labelled their approach for implementing COG as top–down. They departed from a strategy that was developed by the project manager and other policy makers, but this development occurred through multiple sessions with team leaders and teachers, so as to collect visions and ideas on a renewed career guidance policy. Therefore, it can be argued that a bottom–up approach was also recognisable. An implementation plan of this strategy was also constructed by a policy

maker and a team leader, who explained this plan in a meeting with the other team leaders. The team leaders participated in train-the-trainer training where they learned to train their own team to conduct career dialogues and develop the career competencies of their students. Thereafter, it was the responsibility of the team leaders, in cooperation with the managing directors of the departments, to develop tactical policy for the embedding of COG in the learning environment of their students. Because of this, the different teams had the liberty to organise COG the way they thought was fit for their own students.

> *'The team leaders are involved in the policy development groups, and they have been present at the initial retrieval sessions. And thereafter the contact was between the managing directors and the team leaders, and I did not have any role in that as a contact person. That is the moment where I let go and everyone can go on with their own plan.' (Project manager, School 3)*

However, because of the overarching strategy, the teams also had a sense of direction and a framework to help them in designing the learning environment.

This top–down approach concerning 'the what and why' and the opportunity for the teams to exert influence on 'the who and how' were guided by a documented vision on career guidance for the whole school and a policy document, which contained a table indicating what employees should contribute to the innovation and their roles. In this document, it was also emphasised that facilitation of the teams to implement and execute COG was essential, along with support in the form of organised peer-to-peer coaching and training for broadening and deepening of the COG material. Furthermore, a service document was developed, where tools for integrating the new vision and policy into the team plans were provided. In this service document, the vision was articulated, as well as the framework in which the team plans should be developed. Examples were also given of ways to fill in this framework, like a checklist for curricula builders. It was up to the teams to use whatever tools they wanted within this framework. The project manager stated that this system had led to a school-wide knowledge of COG and completed training on COG for almost all the relevant employees.

Conclusion and discussion

To thoroughly describe the policy-shaping processes of three vocational education institutes that participated in the Dutch project COG/SVE, we conducted three case studies by means of interviews, observations of meetings and training sessions and by studying policy documents. Thereby, we sought insight into the innovation process regarding the formulation and implementation of a renewed policy on career guidance and the role of dialogues, collective learning and leadership during this policy formulation and implementation. We found that all three schools were working on the formulation of new

policy on career guidance, which was executed with some external guidance in the form of tools from the project. However, only School 3 attained the formulation of a clear strategy and tactics and started to succeed in implementing these policies. In his section we first summarise the results of each case study, before we present an overall conclusion.

School 1 aimed for a bottom–up process by letting the teams of teachers decide if and when they wanted to start their team sessions on COG, but without offering a strategy, so the direction of the school regarding COG was unclear. The teachers of School 1 were not able to engage in dialogues about COG within the teams, as they experienced a lack of direction and clarity on the topic. This lack of direction seemed to result in a lack of knowledge on the vision and a lack of tactics. Except for a (rather vague) vision document that was developed in the isolated project group, and scarcely distributed, there is no indication of either a strategy or a tactical policy on COG, and therefore, no changes in the learning environment of the students of this school.

School 2 focused on realising dialogues between the project group and the higher management by organising COG training days for the managing directors and the executive board, but for unknown reasons, the participants often cancelled or did not show up. Clear policy documents were developed during the managers' training in 2014 by the project group, but since that point no strategic policy has been developed by the higher management. It seems likely there was no top–down nor bottom–up approach chosen, and both instructional and transformational leadership were not recognised. It is suggested that in both school 1 and 2 the (partial) absence of dialogues between managers and the rest of the institute led to barriers for organised collective learning, and no concrete policies on COG were formulated. Therefore, any changes in the students' learning environment are likely to be fragmented and undefinable.

School 3 worked on the policy formulation by means of continuous communication between the policy makers, teachers and (higher) managers. This was possible because of the clear structure of the school's policy formulation through a standard dialogical process. Clarity on the structural method of consultation ensured opportunity for dialogues. This school eventually seemed to succeed in formulating a concrete strategic and tactical policy, where tasks and responsibilities were clear and the ratio of direction and space was balanced enough to stimulate dialogues. As Fullan (1994) stated: neither a top–down nor a bottom–up approach in itself is effective, but policy formulating and change processes are complex and need 'a more sophisticated blend of the two' (p. 7), as suitable for the context of the school. Dialogues between the different levels of the organisation about the strategic policy were continuously enabled, and this strategy kept being shared and actively supported by the managers. Furthermore, many teachers and other relevant employees were trained, mostly via a train-the-trainer method delivered by their team leader. At the observed team sessions, a highly dialogical culture was present, and the members of the team were active and inventive during their

learning process. During this process, tactical policy for implementing COG was eventually developed.

We conclude that a dialogue between managers and teachers, as well as among teachers, appears to be required for changes in the learning environment of the vocational education students. Formulating a school-wide strategic policy requires communication between the different levels of the organisation to construct and collect visions, ideas and (foreseen) obstacles and difficulties, and create space for feedback. Furthermore, clearly framed space in the form of time, money and support is advisable, and it gives teachers a sense of direction if organisational goals are communicated. Without a strategy, it seems that there is too little direction for the teacher teams and their team leaders to engage in substantive dialogues about the COG innovation process. The dialogical attitude is, therefore, advisable for communication between teachers, team leaders and the higher management.

Through embracing the dialogical attitude, managers can support the collective learning process by collaborating with the teacher teams and their team leaders on the framework they can use to form their team's tactical policy. Furthermore, through dialogue between the teachers in a team, the tactical policy is formulated. Without the dialogues among them, teachers are unable to attach meaning and shared ambition to the innovation process, and a tactical policy at the teacher team level is not developed. Moreover, the distinction between strategy and tactic leads to a clear definition of roles and responsibilities. This definition of roles and responsibilities should provide clarity on 'with whom' and 'about what' dialogues are needed in order to implement the policies for effective career dialogues between teachers and students. The dialogues between managers and teachers remain essential throughout the implementation process and are required to simultaneously set boundaries and create space at the organisational as well as the individual level. Therefore, a distinct method of consultation with frequent meet-ups is recommended.

In line with research by Day et al. (2016), we found that a combination of instructional (top–down) leadership and transformational (stimulating bottom–up processes) leadership is advisable. In interplay with each other, management is likely to construct and implement strategic and tactical policy on career guidance and to simultaneously set outlines and communicate the direction the organisation wants to take. This suggests a more emphasised role for communication between managers and teachers in the process of policy formulation than the project COG/SVE anticipated. In this way, a dialogical work environment for teachers and their managers can be realised, which will eventually stimulate a dialogical career learning environment for their students.

Strengths, limitations and future research

This chapter describes the process initiated by the innovation project COG/SVE in Dutch vocational education, by analysing how this process has been undertaken in three different schools. It provides clear and detailed insight into the contributory factors as well as the obstacles for development of educational policy, and this 'thick description' (i.e. rich and thorough presentment of the situation) helps with the transferability to other contexts (Lincoln & Guba, 1985). However, reporting case studies also means that the generalisability of the results is limited and conclusions should be drawn with caution and seen in the context of the project. The results are nonetheless credible, since prolonged engagement was established, persistent observation and triangulation were accomplished, and member checking was executed with some of the data (Lincoln & Guba, 1985).

Dialogues between teachers, and between teachers and their managers, were an important focus of this study. However, informally conducted dialogues on COG (e.g. during coffee breaks or in the hallway) were not included in our study since we were unable to observe these. Furthermore, the first author was noticeably present at all the observed meetings of the teacher teams and project groups, and it is anticipated that this presence influenced the form and content of the gatherings (although Schools 1 and 2 they did not present us with a rosy picture). It would be advisable to conduct future research on the relationship between a dialogical work environment and policy formulation and implementation in educational organisations with respect to the role of (a combination of) different leadership styles. The exploratory findings of the current study can contribute a model of policy formulation and implementation on school-based career guidance, since this policy is mostly missing, nationally as well as internationally (Hughes et al., 2015). As Fullan (1994) stated:

> 'How change is supported through policy can make the work of those implementing the change more or less difficult.' (p. 38)

Educational innovation processes are famous for being long-term efforts with a high failure rate, and by gaining more insight into strategic and tactical policy shaping in education, the required innovation and change will be more likely to succeed and be sustainable.

Appendix 1. Collected and analysed data

Table 1 Collected and analysed data

What	When
School 1	
Observations and interviews	
Team 1: first day training on COG	March 2015
Team 2: first day training on COG	March 2015
Project group meeting	May 2015
Team 2: second day training on COG	May 2015
Project group meeting	June 2015
Telephone conversation project manager	December 2015
*Concluding interview project manager	May 2016
Documents	
Vision document COG	June 2015
Quality plan 2015-2018	-
School 2	
Observations and interviews	
Professionalisation day for teachers – workshop COG	April 2015
Project group meeting	April 2015
Project group meeting	June 2015
Telephone conversation project group member	September 2015
Telephone conversation project group member & emails afterwards	November 2015
*Concluding interview project manager	May 2016
Documents	
Vision document COG	2011
COG State of affaires	October 2014
School 3	
Observations and interviews	
Orienting conversation project manager	March 2015
Team 1 training: third day of training on COG	April 2015
Meeting & interview core group team 1	October 2015
Telephone conversation project manager	December 2015
* Concluding interview project manager	June 2016
Documents	
Vision and policy frame COG	January 2015
Service document COG	April 2015

* See Figure 1 for schema used as interview guideline.

Appendix 2. Coding schema of analysed data

Table 2 Coding schema

Codes	Sub-codes		
1. Innovation process			
	Realisation career learning environment		
	Results regarding policy		
		Formulation of strategic policy	
		Formulation of tactical policy	
		Policy implementation	
			Organised training for teachers
			Stagnation and obstacles
2. Conducting dialogues			
	Between teachers and managers		
	Among teachers		
3. Constructing collective learning			
4. Management			
	Support for collective learning		
	Combination top down and bottom-up		

Chapter 5

Changes in teachers' role perception regarding career guidance

Abstract

To realise a dialogical career learning environment for students that is primarily career focused as opposed to focused on getting a diploma, teachers are increasingly supposed to approach their students dialogically in Dutch vocational education. A change in attitude and behaviour, however, is only sustainable if a change in the teachers' own role perception is established. This research is a longitudinal qualitative study, designed to investigate the extent to which a national innovation project regarding career guidance has been an impulse for changes in teachers' role perception and to explore what factors influence these developments in role perception. Interviews were conducted with 47 selected teachers participating in the project, four times over a period of three years. Thereafter, the project manager(s) from 34 of the 37 participating schools were also interviewed. The results show that considerable developments were made by the teachers from being diploma focused to being more career focused. In terms of organisational factors stimulating this change in teachers' role perception, the teachers and the project managers generally reported structural and open communication, clear policy and direction and learning as a collective. However, within the schools represented in our study, the change patterns of the individual teachers differed and the organisational stimulating factors named by the teachers and project managers therefore appear to exert different influences on the individual change processes of the teachers. We conclude that a change in role perception is a collective matter in communication and team learning, but it requires individual support and guidance. Thus, it is recommend to support the needs of individual members of teams of teachers in a dialogical manner.

Students in Dutch vocational education, as in the rest of Western Europe, depend on the career counselling services that schools provide, since delivery by external services has mostly been eliminated (Hooley, Watts, & Andrews, 2015; Hughes, Meijers, & Kuijpers, 2015; Meijers, 2001). Therefore, the responsibility for guiding students regarding their career paths generally lies with the teachers (Oomen, Van den Dungen, Pijls, & Egelie, 2012). Teachers tend to find this role quite difficult as they are generally used to talking *to* their students rather than *with* them (Mittendorff, 2010; Winters, 2012), while conceptions of adequate teaching are increasingly focused on guiding and facilitating the students in their personal and professional development in a dialogical manner (Beijaard, Verloop, & Vermunt, 2000; Den Boer & Hoeve, 2017; Geijsel & Meijers, 2005).

To realise a career learning environment for students, the innovation project 'Career Orientation and Guidance in Secondary Vocational Education' (COG/SVE) was developed and has been implemented in the Netherlands since 2010. The project aims to reform the approach of teachers towards their students with regard to a career focused and dialogical attitude. A change in attitude and behaviour, however, is only sustainable if a change in the teachers' own role perception is established (Hoekstra, Brekelmans, Beijaard, & Korthagen, 2009). In this chapter, we discuss the results of a longitudinal research project on changes in school organisational culture with a focus on the consequences for the role perception of the teachers involved.

Innovation project COG/SVE

Most schools embrace the idea of developing different skills that are needed to meet the demands of today's labour market, such as the ability to show flexibility and possessing career management skills (Hillage, Regan, Dickson, & McLoughlin, 2002; Lengelle, Meijers, & Van der Heijden, 2017; Schulz, 2008). However, embracing this idea happens mostly without recognition that such skills require a different learning environment from that in which the focus was on traditional technical competencies (Payne, 2000; Smith & Comyn, 2004). Therefore, in 2010 the Dutch Ministry of Education financed the national five-year innovation project COG/SVE, executed by the project office MBO Diensten. This project was developed to encourage vocational educational institutes to initiate and/or continue the creation of a strong career learning environment for their students.

Central to a strong career learning environment is dialogue with the students, in which meaning is attached to concrete experiences with work and self-regulated learning is developed (Kuijpers & Meijers, 2012; Kuijpers, Meijers, & Gundy, 2011; Meijers, Kuijpers, & Gundy, 2013). A career learning environment should be practice-based and offer students a growing say in the choices they make to develop their ability to give direction to their careers. This learning environment differs considerably from a tradi-

tional environment by not primarily focusing on information transfer and not being geared towards a standard learning route (Den Boer & Hoeve, 2017; Kuijpers et al., 2011).

There is a notable lack of a career learning environment with a dialogical culture in Dutch education; the focus of teachers in their behaviour towards students is not on dialogue with students or on their experiences with work (Kuijpers & Meijers, 2017; Meijers & Kuijpers, 2014; Winters, 2012). Realising this career learning environment is therefore a change process that requires innovation to implement sustainable change in culture and structure and consequently in the attitudes and behaviour of teachers (Fullan, 2007; Kuijpers & Meijers, 2017). As teacher professional development is regarded as crucial for educational change (Lieberman & Pointer Mace, 2008), a training programme on conducting career dialogues with students was considered to be the starting point of the transformation towards a dialogical career learning environment.

The training programme consisted of both off-the-job and on-the-job stages, because an off-the-job training programme for teachers proved to be insufficient to achieve significant changes in career dialogues (Meijers & Kuijpers, 2014). In combination with individual coaching and team coaching on-the-job, however, the programme proved to be effective in improving guidance conversations (Kuijpers & Meijers, 2017). In the off-the-job stage, which took a total of two days with periods of two to four weeks in between, the emphasis was on explaining the theory and putting the theory into practice in career conversations. In the on-the-job stage, the emphasis was on the translation of the training to the teachers' own school environment. From each participating school two (or in some cases more) teachers received an extended training programme to become a *school coach*: they were trained to train their own colleagues in improving their career dialogues with students. All other teachers took part in a four-session in-school training programme (two individual and two team sessions) with their school coaches, using video-recorded guidance conversations among the participants as a starting point for learning. Furthermore, the teachers were trained through role-playing activities and the provision of recent theoretical insights concerning career dialogues aimed at life design. The teachers were taught to encourage the students to develop their career competencies by conducting career dialogues that were appreciative, reflective and activating in form and in content aimed at the development of a career identity and career oriented actions (Kuijpers & Meijers, 2017). National experts trained both the school coaches and the teacher teams off-the-job, and they also supported the part of the training that took place on-the-job (MBO Diensten, 2012; Meijers, Vogels, Kronenberg, & Den Boer, 2015).

Earlier studies on the COG/SVE innovation project, as described in previous chapters, focused on the collective learning of teacher teams and on the role of the team leaders and other managers regarding changing the learning environment of the students. It was found that the involvement of teachers in developing a vision and policy seemed advisable to ensure full support, since determining the goals and direction of

the learning process together is likely to exert a positive influence on the outcomes of educational reform. Furthermore, a dialogue between managers and teachers, as well as among teachers, appeared to be required in undertaking structural and cultural changes in the learning environment of the students. Formulating a school-wide strategic policy asks for communication between the different levels of the organisation and clear tactical policy require teacher teams and their team leaders to engage in substantive dialogues about the COG innovation process. It is expected that only through dialogue can changes in the organisational culture of the schools be experienced, as reculturing is a process of co-creating new meanings in situations of ambiguity and uncertainty in a dialogical manner (Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007; MBO Diensten, 2012). This longitudinal study gives an in-depth description of the structural and cultural changes in the school organisations initiated by the project, and consequently changes at the level of the individual teachers, focused on their role perception.

Teachers as career guides

According to Kuijpers et al. (2011) and Meijers et al. (2013), a non-traditional learning environment, as aimed for by the COG/SVE project, should focus on the development of particular career competencies, resulting in a career identity. They distinguished five career competencies: capacity reflection (observation of capabilities that are important for one's career), motivation reflection (observation of wishes and values that are important for one's own career), work exploration (researching job possibilities), career directedness (making thoughtful decisions and taking actions that allow work and learning to correspond with one's capabilities and motivation and challenges at work) and networking (building and maintaining contacts focused on career development). The development of a career identity takes place by means of meaningful real-life (work) experiences and individual conversations about these experiences (Meijers & Lengelle, 2012, 2016). During these conversations, teachers are required to adopt the role of guiding and asking purposeful questions that will allow students to draw their own conclusions instead of transmitting information or controlling the situation. This new teacher behaviour of guiding instead of directing and asking questions instead of talking involves listening with an open mind and letting the students decide what it is important to talk about and excludes giving advice (Den Boer & Hoeve, 2017; Lodders & Meijers, 2017; Winters, Meijers, Harlaar, Strik, Baert, & Kuijpers, 2013). Valuable conversations can take place during scheduled career conversations, but short conversations can also occur during classes or breaks, namely when a situation might be considered meaningful for the student.

Winters' (2012) research showed that when teachers develop a dialogical rather than a monological conversation style, their students respond with more reflective

answers. However, as stated before, teachers find this dialogical mode of asking questions and activating students quite difficult. Winters' research also showed that most of the time, teachers talked *to* instead of *with* students during career dialogues. Consequently, most students do not receive the guidance they need to become successful in directing their own career in the current labour market. The focus of school-based career guidance is still mainly on helping students further in their academic achievement and not on helping them construct their career aspirations and prepare for their work roles and career competencies after completion of their education.

Teachers' role perception

Teachers' role perception refers to the self-description of teachers and is the answer to questions such as "What does it mean to call oneself a teacher?", "How do I see myself as a teacher?" and "What kind of teacher do I want to be?" (Korthagen, 2004; Van Lankveld, Schoonenboom, Kusurkar, Volman, Beishuizen, & Croiset, 2017). Role perception includes task perception, described by Kelchtermans (2009, p. 262) as:

> '…a teacher's personal answer to the question: what must I do to be a proper teacher?; what are the essential tasks I have to perform in order to have the justified feeling that I am doing well?; what do I consider as legitimate duties to perform and what do I refuse to accept as part of "my job"? … The task perception encompasses deeply held beliefs about what constitutes good education, about one's moral duties and responsibilities in order to do justice to students.'

The beliefs teachers hold about education and being a good teacher is argued to be of influence on their actual behaviour in the classroom (Assen, Meijers, Otting & Poell, 2016; Korthagen, 2004; Pajares, 1992).

Teachers' role perception is part of a teacher's professional identity that is seen as a dynamic process, negotiated through experiences, consisting of multiple sub-identities and difficult to separate from the non-professional self (Beauchamp & Thomas, 2009; Beijaard et al., 2000; Beijaard, Meijer, & Verloop, 2004; Vloet, 2015). Like teacher professional identity, role perception implies both a person and a context as it is as much about what teachers find important in their profession as it is about conceptions and expectations of others about the profession (Beauchamp & Thomas, 2009; Beijaard et al., 2004). The role perception of teachers is socially and culturally determined (O'Connor, 2008), and is specifically concentrated on the vision and mission of the teacher regarding his or her own (inner and outer classroom) teaching practice.

Considering teachers' role perception as an aspect of teacher professional identity and task perception as an important aspect of role perception, it is expected that these are determined by parallel factors. These factors are mostly dynamic and rather ambiguous and are focused on the interpretation and re-interpretation of teaching and other

school experiences (Akkerman & Meijer, 2011; Beijaard et al., 2004). Furthermore, teaching cultures and school cultures exert a considerable influence on teachers' individual beliefs and therefore their classroom behaviour to a large extent (Assen, Koops, Meijers, Otting, & Poell, 2018). Finally, personal identity factors also influence the professional identity, but a clear distinction in this regard has not been identified (Beijaard et al., 2004). Literature on professional identity development concentrates mainly on the formation of a professional identity with a focus on agency (Assen et al., 2016). Research concentrating on transforming certain aspects of professional identity, such as roles and responsibilities, with a focus on external influences is generally lacking (Trede, Macklin, & Bridges, 2012). Therefore, factors related to structural and organisational culture that influence development in teachers' role perceptions towards dialogical (career) guides are investigated in the current study.

Changing the attitudes of the teachers towards their students from primarily knowledge transfer to a focus on ongoing career development (as aimed for in the COG/SVE project) requires substantial changes in the daily practice of teachers and therefore a change in their role perception. Den Boer and Hoeve (2017) argue that for educational change to occur, a change in the routines of teachers and their teams is fundamental. Routines are patterns of behaviour that supply stability; changing routines brings chaos and uncertainty and can therefore be experienced as undesirable. Based on Nelson and Winter (1982), it is argued that collective routines involve different roles, describing what individual group members do and why. From a cultural approach, routines and the roles involved are part of organisational culture as they are the outcome of organisational norms and values and direct behaviour and attitudes. Peterson and Spencer (1991, p. 142) describe organisational culture as "the deeply embedded patterns of organisational behaviour and the shared values, assumptions, beliefs, or ideologies that members have about their organization and its work". Changing the organisational culture of a school therefore means changing these deeply embedded patterns (Blood & Thorsbone, 2005). To establish changes in this culture to foster innovative ambitions and as a consequence alter role perceptions and (team) routines, dialogues between managers and teachers are expected to be necessary to make the desired behavioural patterns and role divisions explicit (Den Boer & Hoeve, 2017; Hulpia, Devos, & Van Keer, 2011). Furthermore, the adoption of a dialogical approach by managers in their interactions with teachers during the change process prevents falling back on previous, familiar teaching routines (Assen et al., 2016). This requires a combination of instructional leadership (top down) and transformational leadership (stimulating bottom-up processes), embracing the dialogical attitude to support the collective learning process of the teacher teams and their team leaders, while simultaneously setting boundaries and creating space at the organisational and individual levels (Day, Gu, & Sammons, 2016; Geijsel & Meijers, 2005).

Aim and research questions

Previous research concerning the effects of the COG/SVE training programme on the form and content of career dialogues showed that teachers ask more career oriented questions and that more career oriented responses are given by the students after participating in the off-the-job and the on-the-job stages of the programme (Kuijpers & Meijers, 2017). However, before teachers become focused on career guidance and approach their students in a more dialogical way, they need to embrace a different view of their teaching role. Only after such a new view is successfully adopted can sustainable changes in individual behaviour and the routines of teacher teams be expected (Den Boer & Hoeve, 2017). In this chapter, we aim to answer the following research questions:

1. To what extent has the role perception of teachers participating in the project COG/SVE changed since the start of the project?
2. What organisational factors stimulate this change in teachers' role perception?

Method

This research comprised a longitudinal qualitative study, designed to investigate the extent to which the COG/SVE project has provided an impulse for changes in teachers' role perception and to explore what factors have stimulated their developments in role perception. The methods used to answer our research questions are explained in the following subsections.

Sample and selection

Teachers. As part of the COG/SVE project, two central training days were organised for 238 teachers from 20 of the participating schools during the period from September to December 2013. The schools were spread throughout the Netherlands and included inner-city schools as well as those in rural regions. The teachers of the 14 other schools received their training at a different time and were therefore not included in our research.

During the period from October 2013 to January 2014, all 238 participating teachers were approached for a semi-structured interview at a place and time of their choice. At the start of their first training day, the teachers completed a questionnaire on their personal motivation and aspirations regarding the project and on the existence of their schools' policy and vision concerning COG. Teachers with highly divergent scores on the questionnaire were personally approached to provide maximum variation in sampling (Miles, Huberman, & Saldaña, 2014) and to avoid distorted results.

Eventually, 50 teachers from 18 different schools agreed to participate in 2013. From two schools, no teachers agreed to participate due to unknown reasons. During our longitudinal study, three teachers who were interviewed in 2013 were excluded from the sample due to lack of willingness to participate in later measurements, or having left the school as a teacher. Of the 47 participating teachers 30 were female, 41 taught specific subjects and six exclusively worked as student guides or career counsellors. All teachers participated on a voluntary basis and their anonymity was guaranteed.

Project managers. The 39 project managers were the contact persons of the COG/SVE project at 34 of the participating schools (one, sometimes two, in each school) and were mostly those with the responsibility for integrating COG in the vision and policies of the school. The project managers received professional guidance for their task from experts in the COG/SVE project and had frequent meetings with other project managers in their region for knowledge sharing purposes. They had inclusive views of the developments and changes, as well as responsibilities in decision making regarding the project within their schools. Furthermore, they were the points of contact for teachers with questions regarding the project. Therefore, their experiences were valuable when investigating whether the developments we found during our scoring process of teachers' role perception could be explained by changes in the school organisations. In April, May and June 2016, the project manager(s) from 34 of the 37 schools participating in the COG/SVE project were approached for a semi-structured interview at a place of their choice. Eventually, all project managers of the 34 different secondary vocational education (SVE) schools agreed to participate. Project managers in the same schools were interviewed together. Four participants in the teacher sample of our study became COG project managers in their schools during the course of the project and were therefore included in both samples.

Data collection

Teacher interviews. To answer our research questions, we first interviewed the 47 selected teachers four times over a period of three years. The first interviews took place from September 2013 to January 2014, at or just after the second off-the-job training day. Forty-four interviews were recorded with a video camera, placed on the desk or table where the interview took place, with the permission of the teacher and after assurance that the recordings would only be used for *verbatim* transcription of the interviews. One interview was conducted via Skype (and also recorded), one interview was conducted through a non-recorded telephone conversation and one teacher answered the questions in writing.

The second interview took place approximately six months later, in April, May and June 2014. Thirty-seven interviews were conducted through non-recorded telephone conversations. Notes were taken during the interviews and these were processed immediately after into interview reports. Seven interviews were conducted face to face,

recorded with a video camera and transcribed *verbatim* to provide multiple in-depth interviews as additions to the shorter telephone conversations. Three teachers did not respond to our multiple requests regarding this measurement.

The third interview took place in April and May 2015, a year after the second interview. Thirty-eight interviews were conducted through non-recorded telephone conversations. Seven interviews were conducted face to face, recorded with a video camera and transcribed *verbatim*. These were the same interviews as the face-to-face interviews in the second measurement. Two teachers did not response to our multiple requests regarding this measurement.

The fourth and last interview took place another year later, in April, May and June 2016. Forty-one interviews were conducted face to face and recorded with either a video camera or audio device to enable verbatim transcription of the interviews. Six interviews were conducted through a non-recorded telephone conversation and processed immediately after into interview reports. These interview reports of the fourth measurement were sent to the teachers interviewed for member checking afterwards; three teachers returned their reports, with small additions in one of them.

The interviews conducted with the 47 teachers were semi-structured and therefore open to the narratives of the teachers. The researchers monitored a list of topics that had to be covered during each measurement. The emphasis of the interviews was on the teachers' perspective concerning COG in the school and their role in providing this for their students. Furthermore, we discussed changes experienced since the start of the project in the daily practice of the teachers, as well as changes at the organisational level, at the team level and at the student level. The teachers also described the involvement and support from the team and middle and higher management experienced during the project and their experiences of conducting career dialogues with the students. Appendix 1 provides the complete topic list and example questions. All face-to-face interviews took between 20 and 75 minutes, with an average of approximately 45 minutes. All telephone interviews took approximately 15 minutes.

Project manager interviews. In April, May and June 2016, the one (or in some cases two) project manager(s) from 34 schools were interviewed at a place and time of their choice. Thirty-three interviews were conducted face to face and audio recorded for later transcription verbatim. One interview was conducted through a telephone conversation and immediately afterwards the notes were processed into an interview report.

The aim of the project manager interviews in 2016 was to investigate their perceptions of how the project had influenced the schools at the organisational and teacher levels to provide us with possible explanations for the changes in the role perception of the teachers. The nature of the project manager interviews was also reflective, open and informal, but a list of topics was used that had to be covered: changes experienced since the start of the project at the organisational and teacher team levels; the process of creating, documenting and implementing the renewed policy on career guidance; descriptions of the involvement and support of the middle and higher management

experienced during the project; the project managers' perspective on COG in school. Appendix 1 provides the complete topic list and example questions. All face-to-face interviews took between 30 and 75 minutes, with an average of approximately 45 minutes. The telephone interview took approximately 20 minutes and the interview report was member checked by the project manager afterwards.

For an overview of the timeline of the study and the number of respondents participating in each measurement, see Table 1.

Table 1 Timeline measurements and respondents

	Measurement 0 Sept-Dec 2013	Measurement 1 Oct 2013–Jan 2014	Measurement 2 April-June 2014	Measurement 3 April-May 2015	Measurement 4 April-June 2016
Teacher selection questionnaire	N^1=238				
Teacher interviews		n=47	n=44	n=45	n=47
Project manager interviews					N=39

^{1}N = the total sample, n = a sub-sample of the total sample

Analysis

Research question 1. To answer the question concerning the extent to which the role perception of teachers participating in the COG/SVE project had changed since the start of the project, we first analysed the interviews of the 47 teachers who participated in all four measurements. We scored each interview on three different aspects of the teachers' role perception, if possible, to determine whether any developments in the aspects were observable (see Table 2). The emphasis of our study was on the first and last measurement to elicit the total development during the project, although the second and third measurements also provided valuable information regarding the learning curve of the teachers. We identified segments in the interviews that indicated the teachers views of what "being a (good) teacher" meant regarding career guidance and what the teachers thought the corresponding tasks of "being a (good) teacher" were. Therefore, we did not investigate actual actions or behaviour discussed by the teachers.

Focusing on the role perception of a dialogical career guide, the scoring scales developed were as follows: *diploma focused to career focused*, *monological to dialogical*, and *directing to guiding*. The scales were developed by means of a literature review, as well as a pilot of four interviews with five teachers that were scored by different authors. During this development process, regular meetings between the authors were held to adjust the scales until they were clearly distinctive. Each interview received one score per scale, from 1 (mostly diploma focused, monological, or directing) to 4 (mostly career focused, dialogical, or guiding; see Appendix 2 for the categories related to each score).

After the scoring of measurement 4, an indication of the development since measurement 1 on each aspect per teacher was given (- = 1 score down, . = same score, + = 1 score up, ++ = 2 scores up). In this way, we were able to construct an overview of the changes observed in the 47 teachers' role perception, focused on career guidance. We made a distinction between "regular" teachers and teachers who were also school coaches, meaning they had received extended "train the trainer" training to then train the teachers of their own school in COG.

To illustrate how we scored the interviews, we here show interview segments for Teacher 6[1]. Teacher 6 scored 1 on the *diploma-focused to career-focused* scale during measurement 1:

> *'So then I started a conversation with her [a student]. … But in the end she goes down a level lower, she is going to do maternity care, while she is now at level four, she goes to level three. So the conversations did not really result in anything in my opinion.' (Teacher 6, measurement 1)*

Teacher 6 scored 3 for the same dimension in the last measurement:

> *'Well, in conversations I notice that we are looking for: well, what do you do well in your work placement and does it make you happy? And in this way we try to stimulate the flow. If people do not want to continue here, then we can help lead them to something else. We are more consciously working on turning the switch: what do you want, what can you do well and how are you going to do that?' (Teacher 6, measurement 4)*

Research question 2. To answer the research question concerning what organisational factors within the different schools stimulate changes in teachers' role perception, we analysed all the teacher interviews from the last measurement, as well as all project manager interviews, by means of a qualitative coding process based on the question: 'What changes in the school organisation, influenced by the project, stimulate individual changes in teachers' attitudes and behaviour towards their students, according to the teachers and project managers interviewed?' First, we analysed the interviews of the 47 participating teachers and the interviews with the project managers of the 34 participating schools to investigate whether the developments we found during our scoring process of teachers' role perception could be explained by changes in the school organisations. The focus was on the interviews of measurement 4, as these were reflective in nature.

Since stimulating factors for changing role perception had not been investigated before to our knowledge, we had no prior analytic lens and the analysis was therefore exploratory.

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[1] In this chapter the teachers are numbered, to relate quotes to the scores in Table 2.

A basic coding schema was developed *a priori*, based on previous research under-taken in the COG/SVE project (see previous chapters of this dissertation). Examples of codes are: 'Method of consultation stimulates', 'Involvement of middle and higher management stimulates', 'Organised workshops or training stimulate'.

Thereafter, the first author analysed the teacher interview and project manager in-terview transcripts by use of a bottom-up, iterative and inductive coding approach (Cre-swell, 2014; Miles et al., 2014; Mortelmans, 2011). Categories and relationships be-tween the categories were formulated based on observations of the data and descrip-tive codes and sub-codes were given to different categories by the first author in the qualitative data analysis programme *NVivo11*. Examples of these codes are: 'COG clas-ses scheduled stimulates', 'Project group or ambassadors stimulate', 'Method of consul-tation stimulates'. This adding of codes continued until saturation took place (see Ap-pendix 3 for the final coding schema). Cross-case analysis was conducted and the possi-ble impacts of organisational factors on the change in teachers' role perception were described (Miles et al., 2014; Wester & Peters, 2004). Thereafter, within-case analysis was performed by clustering the interviews of the teachers and school coaches from the 18 different schools to determine whether the teachers at the same schools pre-sented comparable developments in their role perception, and to what extent this could be explained by school organisational factors.

During and after the phase of analysis, regular meetings between the authors were held to discuss the methods, procedure and (preliminary) findings. Furthermore, to determine the inter-rater reliability of the coding process, Cohen's kappa was calculat-ed. This is a measurement of the agreement between two raters, with measures occur-ring by chance taken into account. For this purpose, a second researcher was trained to use the coding schema for the teacher interviews and the project manager interviews in addressing the second research question. Respectively five (>10%) and four (>10%) interviews were selected randomly for recoding. For both the teachers' and project managers' interviews Cohen's kappa was 0.79, a value considered acceptable (Lombard, Snyder-Duch, & Campanella Bracken, 2002) to almost perfect (Landis & Koch, 1977).

Table 2. Development of career focused, dialogical and guiding perception of teachers' role over 4 measurements

	Career focused					Dialogical					Guiding				
	M1	M2	M3	M4	development	M1	M2	M3	M4	development	M1	M2	M3	M4	development
Teacher															
1	2	n	2	2	.		n	3	3	.	3	n	3	3	.
2	2	2	2	2	.	3	3	2	3	.	3	3	3	3	.
3			3	3	.	3	3	3	3	.	3	3	3	4	+
4	2	2	n	3	+		2	n	2	.	3	3	n	3	.
5	2	2	2	2	.	3			3	.	3	3	3	3	.
6	1	2	2	3	++		2	2	2	.	2			3	+
7	2	3	3	3	+	2	3	3	4	++	2	2	3	3	+
8	2	2	2	3	+	3	2	3	2	-	2	2	3	2	.
9	2	3	2	3	+	3	3	2	3	.	4	4	4	4	.
10	2	3	2	2	.	2	2	2	2	.	3	2		2	-
11	1		1	3	++	1		2	2	+	2	2	2	3	+
12	2	2	2	2	.	2	2	2		.	3		3	3	.
13	2		1	1	-		2	2	2	.					
14	2	2				2					2				
15	2	2	n	2	.			n	2				n		
16	2	3	2	3	+	3		3	3	.	3	3	3	3	.
17	3	2	3	3	.	2	2	3	3	+	3		3	3	.
18	2		3	3	+	2		2		.	2	3		3	+
19	3	3				4			4	.	3	3	3	3	.
20						3					3			3	.
21	2	3	2	2	.	3	3	1	2	-	2	3		3	+
22	2	n	2	2	.		n		2		3	n		2	-
23	3	2	3		.						3	3	3		.
24	2			3	+	3		3	3	.	3	3	3	3	.
25	2	2		3	+	3			3	.	2			3	+
26	3	3	3	3	.	2			3	+			3		
27	3	n		3	.	2	n	3	2	.	3	n	3		.
28	2	2	3	4	++		3		4	+	3	3		4	+
29	2		2	2	.	2		2	3	+	3	3		3	.
30	3	3	3	2	-	3		2	2	-	3	3			
School coach															
31 p	3	3	4	4	+	3	4	4	4	+	4	4	4	4	.
32	4			4	.	4			4	.	4	4	4	4	.
33 p	2	2	2	2	.	2					2	2			
34	2	2	2	2	.	2		3	2	.		3		3	.
35	2	3		3	+	3			3	.		3	3	3	.
36 p	3		3	4	+								3	3	.
37	2	2	2	3	+	2	2		3	+					

	Career focused					Dialogical					Guiding				
	M1	M2	M3	M4	development	M1	M2	M3	M4	development	M1	M2	M3	M4	development
38							3		3	.					
39	3			3	.	3		3	3	.	3			3	.
40	4	3		4	.		3	3		.	3		3	4	+
41 p	3	3		4	+	3		3	3	.	3		4		+
42	2		1	2	.	3	3	2	2	-	3			3	.
43	2	2	2	3	+	3	3	3		.	3			3	.
44	3	3	3	3	.	3	3	3	3	.	3		3	3	.
45	2	3	4		++	2	3	3	3	+	3	3	3		.
46	4			4	.	3	3	3	3	.	3		4	4	+
47	3		3	4	+		3	3		.	2		3	3	+

p = also project manager, n = non-response, empty = no scoring possible due to the content of the interview;
- = 1 score down, . = same score, + = 1 score up, ++ = 2 scores up

Results

Changes in role perception

To answer the research question concerning the extent to which the role perception of teachers participating in the COG/SVE project had changed since the start of the project, we constructed Table 2, as explained in the Method section.

The scores of the individual teachers in Table 2 generally show a consistent line between the measurements. Therefore, we focus on the results of the first and last measurements. Furthermore, a distinction between "regular" teachers and school coaches is to be made when looking at the scores of measurement 1 for the *diploma-focused to career-focused* scale. As can be seen, 20 out of 30 "regular" teachers scored 2 (*more diploma focused*, *less career focused*) at measurement 1 and only 6 (20%) scored higher than 2 (*more career focused* and *mostly career focused*) at the same point. This means that during measurement 1, most teachers were predominantly diploma focused and less career focused. For the school coaches, 9 out of 17 (53%) scored 3 or 4 in measurement 1, which means they scored as *more career focused*, *less diploma focused* or *mostly career focused.* For the other two scales, the differences between the "regular" teachers and the school coaches were rather small. Furthermore, in measurement 1 the 47 teachers scored typically higher on the *monological to dialogical* and *directing to guiding* scales than on the *diploma-focused to career-focused* scale. On the *monological to dialogical* and *directing to guiding* scales, the teachers and school coaches mostly scored 3, *more dialogical* and *more guiding* (respectively 19 and 26) in measurement 1. Most (27) teachers and school coaches scored 2 (*more diploma focused*) and 12 scored 3 (*more career focused*) on the *diploma-focused to career-focused* scale in measurement 1. This shows that the teachers were already scoring high for a dialogical and

guiding educational attitude right after or at the first day of the training programme, but relatively low on being career focused.

Furthermore, Table 2 shows the most considerable development for the *diploma-focused to career-focused* scale, indicating visible development among the teachers from being diploma focused towards being more career focused. In all, 19 of the 47 teachers ("regular" teachers as well as school coaches) show an increase in scores on this scale, with 4 of them scoring two points higher than during measurement 1. Of all the teachers, 22 scored the same during the first and last measurements. For the *monological to dialogical* scale, most teachers (27) also showed no change between the first and last measurements. The scores of nine teachers increased between the first and the last measurements, which is considerably fewer than those with increasing scores on the *diploma-focused to career-focused* scale*.* Finally, for the *directing to guiding* scale, 12 teachers showed an increase for the last measurement compared to the first and 25 teachers scored the same in both measurements. For all three scales, only few teachers (two, four and two respectively) declined in score.

To conclude, the scores showed that the teachers were considerably more *diploma focused* at measurement 1, the starting situation, than at measurement 4, when they scored higher for being *career focused*. The school coaches started with higher scores than the "regular" teachers at measurement 1. Furthermore, the *diploma-focused to career-focused* scale shows the most considerable development, with 19 of the 47 teachers showing an increase. For the *monological to dialogical* and *directing to guiding* scales, most teachers showed no change between the first and last measurements.

Stimulating organisational factors

In the presentation of the results of the 47 teacher interviews regarding factors stimulating changes in the career oriented approach of their students, no distinction is made between the "regular" teachers and the school coaches, as we asked the latter to tell us about their experiences with COG and the project in their role as teachers. The results are presented in order of the aspects most frequently discussed by the teachers and the project managers during the interviews. At the end of this section, the stimulating factors are presented in Table 3, with those most frequently discussed first.

Teacher interviews. The factor most stimulating changes in approaching students identified by the majority of the teachers was recurrently discussing the content and process of the COG/SVE project. The teachers reported that talking about the change process, its additional implications and expectations with their colleagues helps them to grasp the concept and the way of documenting COG within their team planning. Sharing experiences of the career focused approach and the students' reactions to that approach helped the teachers to inspire each other. Teacher 7 told us:

> *'We still talk to each other. Yes, we are believers here. That's always inspiring, but you need that, because otherwise... You really have to be charged occasionally by someone. "Well, I have this idea, I have that idea".' (Teacher 7)*

Conversations and discussions about COG with team leaders and managers also stimulated the change process according to the teachers, as this gave room to ask questions and share enthusiasm about the topic. Furthermore, the team leaders and managers could keep the topic of COG important and relevant by frequently talking about it with the teachers. Two teachers identified the lack of conversations about COG explicitly as an obstacle to the change process:

> *'Yes, internally there is just no communication about it. Or no need for it, or I do not know what it is. That was a lot of frustration. I thought: we have participated in the training, you have developed the vision and then nothing seems to be happening and there is no communication about it.' (Teacher 35)*

Discussions concerning COG could take place in different situations: in one-on-one conversations with a colleague or a manager, in team meetings, during lunch or coffee, or during organised workshops or training in COG. These workshops or training sessions organised by the school, which were in addition to the national training days in which all teachers participated in 2013, were often referred to by the teachers as an important stimulating factor, as they helped teachers practise their skills in conducting career dialogues, but also enabled them to gain a clear concept of the direction envisioned and the aim of the innovation process.

The involvement of the team leaders in the COG change process was regularly identified as stimulating as the team leader could initiate discussion of COG within the team, as mentioned before, but also since an involved team leader was able to answer questions and clarify the topic and to facilitate time and different forms of individual support:

> *'Since this year, we have had a team leader who has also been a counsellor and has participated in the COG training days, so he is on it. We as counsellors feel supported by him and it also radiates to other people here inside the school.' (Teacher 34)*

Moreover, team leaders were responsible for guiding the development of the specific team policies, or the tactics, concerning COG. When there was a clear strategic policy in the school and a tactical policy was documented, this approach also proved to be a stimulating factor for a successful change process, although the teachers did not always use those specific terms when discussing them. A strategic policy describes the school-wide policy on COG, with focal points, a timeline and accompanying actions. In the tactical policy, teacher teams construct their team plans within the frame of the strategic policy. This division led to clarity for the teachers in terms of the direction the school

wanted to take regarding COG, while leaving room for the teacher teams to develop their tactics in a way they knew was suitable for their students:

> *'The teams have different needs and also have a different starting level. There are teams that have already done quite a lot of COG in their own way, but they did not call it that. And they just need to fine tune. There are also teams that have done nothing yet. They must build up from the start.' (Teacher 31)*

Constructing a tactical policy at the team level required teams of teachers to engage in a learning process collectively, to determine their current position regarding COG and to formulate shared ambitions and actions. The teachers told us this team learning was a stimulating factor as working on COG as a team helped streamline the members' ideas on roles and responsibilities within the team and sharing experiences of COG made the change process more relevant, vivid and workable:

> *'In fact, the results were the least visible after the first training [the national training days]. The training was good, but learning in the school seems to ensure that most change takes place. Otherwise you miss the team-learning process. We notice that in the groups that are trained in the school there is a wish for follow-up meetings and the like, while the group trained at [the national training days] is beginning to abandon COG.' (Teacher 45)*

When the involvement of the managing directors and the executive board was evident in the form of enthusiasm, conversation, clarification and facilitation, it had the same stimulating effects as the involvement of team leaders:

> *'In any case, I think it should always be on the agenda and I think that a manager must be able to enthuse people and, in my opinion, it should not be like this: "This is new, this is different, this is something specific", but somehow it just has to be an interwoven whole.' (Teacher 24)*

Moreover, higher levels of management could in this way inspire and activate the team leaders to prioritise the COG change process in their teams and for their individual members:

> *'...the management sends the team leaders, the team leaders are essential, so the management says: "Now we are going to discuss this with the team leaders and show what their options are" and we indicate that it is desirable for the teams to be trained. And you can still leave it up to the teams and then they prioritise themselves, but once it starts to roll and people are excited, it's going to be fine.' (Teacher 41)*

In many teams it appeared that the teachers (or their team leaders) chose a certain "method" to make COG visible to their students. Method here refers specifically to several commercial and externally developed lessons and guiding designs and some

teams chose one themselves. Teachers referred to these methods and scheduled classes as stimulating because they simplified and structured the somewhat abstract and complex concept of COG. Furthermore, they provided teachers with something they simply "had to do":

> 'We made COG lessons mandatory and bought a method for it, I do not know the name of the method very well, but [name method]? Do you know it? So now we have had that booklet the first year. The idea was to cover that in two years, but that is far too little in terms of content, too little substance. … We are looking for something in addition, because there are also good things in it. So the booklet itself is actually insufficient.' (Teacher 22)

Finally, pro-active school coaches could be stimulating in terms of communicating about COG with colleagues, learning collectively as a team and organising workshops internally, as several teachers explained:

> 'Look, those school coaches bring you just one step further than the training in career dialogues. I think those school coaches are required to keep the conversation going on after the training in career dialogues and the fact that COG is now included in the team plan and the curriculum... So you need to keep it warm and keep attending it so it becomes a cultural change for teachers, but you do not easily achieve that. You do not achieve that by purchasing a method for COG because you need much more.' (Teacher 36, also Project Manager)

Project manager interviews. The results of the interviews with the project managers showed that the most stimulating factor for the change process towards a career focused, dialogical and guiding learning environment for students was COG as a recurring issue in conversations, discussions and dialogues. Most project managers told us that it is important to keep discussing COG in as many ways as possible. Recurrent communication between managing directors on the topic were stimulating for their involvement in the process. Moreover, conversations between them and teachers, between team leaders, between teachers and team leaders, between team members, or between teachers of different teams or even schools were required to establish sustainable changes in teachers' role perceptions:

> 'You are going to secure it in your curriculum, you are going to talk about it, you are going to discuss it with supporters and opponents, but in the end that is what has been setting things in motion.' (Project Manager, school 9)

These conversations could occur informally, during coffee or lunch, or formally, for example during structural meetings between teachers, team leaders and higher managers. A method of consultation, which in some cases already existed before the project started to address all kinds of issues, was referred to by multiple project managers as an important stimulating factor.

> *'…according to our procedure, so that means that we together with teachers developed this [strategy], asked for feedback from the teacher teams, so also the people who have to work with it. Thereafter it goes to the managing directors' meeting. They assign it. If the managing directors assign it, the executive board approves it too.' (Project Manager, school 5)*

Organised training and workshops aimed at professionalism in conducting career dialogues within the organisation, in addition to the national central training days, was also often identified as a stimulating factor by the project managers. Information and theory concerning COG and its place in the organisation were explained in these sessions and teachers were able to practise and improve their dialogical career guiding skills. Some project managers reported the importance of teachers participating in training in career dialogue themselves to experience the process of a COG career dialogue and the difference between an actual (career) dialogue and other forms of communication with students. Furthermore, the project managers reported that team learning off- or on-the-job was stimulating for the change process as it focused the team on the issue of COG and fostered a shared ambition regarding the results of the change process:

> *'A few weeks ago, the last team was trained in conducting career dialogues. That is actually a first step because during the training the context of why you conduct the dialogues is explained. … So for those team members, I heard this there, it was quite an eye opener.' (Project Manager, school 4)*

Team learning could also occur in preparation for training, or the continuation of the learning process, in the form of discussing the issue, peer-consultation and/or reflecting. One project manager told us that "pain, desire or necessity" should be felt by a teacher team as a whole before "something new" can be started with motivated members. Moreover, team learning was a way of collecting and streamlining conceptions among the team members of the change process, and it resulted in a dialogical way and collectively giving substance to the dialogical career learning environment that they knew is suitable for their students.

Autonomy for teams in constructing their own tactics, guided by an involved team leader, was often considered a stimulating factor. In many cases, but not all, this was linked to the need for a strategy; here (as mentioned before), the school-wide policy on COG, with focal points, a timeline and accompanying actions is described:

> *'This is the football field and they are allowed to arrange the set-up as they want it. We did not want to get onto the micro level. We did not do that, but this [the strategy] is very clearly the frame for them.' (Project Manager, school 5)*

Often identified as a requirement for constructing this strategy was the involvement of middle and higher management. Their involvement is even more stimulating when it offers opportunity for discussion, support and facilitation. Multiple project managers spoke about parallels in communication between managers and teachers and between

teachers and students. They found that teachers should be approached by their managers in the same way as they are expected to approach their students:

> 'We always say "practise what you preach". It sounds a bit popular, but it means that we sacredly believe that as a career guide experiences what COG is from their managers in performance appraisals, the assessment system, to school coaches, that then it will work. So we are constantly looking at it as what we do to our students, we must do to ourselves.' (Project Manager, school 23)

> 'But in this as well, just as with our students, we want the mind set of: this is how we approach students, this is how we want it in the entire school. This is how the executive board wants to approach the managing director, the managing director the team leader, the team leader the teacher and the teacher the student.' (Project Manager, school 25)

About half those interviewed identified a COG project group or COG ambassadors within their school as important stimulating factors in their experience. The project group members or ambassadors who were assigned to some of the schools could be different from or additional to the project managers we interviewed, and were stimulating in their activity in encouraging the aforementioned discussions and communication concerning the issue of COG:

> 'All workgroup members ensure that something about COG is also rolled out at the coffee table, that something is told about it. But that is often it: you have to refer to it a lot and if it really gets a place, people will automatically think that it is evidently important.' (Project Manager, school 33)

Furthermore, they could function as a point of contact for questions or clarification regarding COG within their organisation. They could help the managing directors construct a strategy for COG and arrange training and workshops on career dialogues for the teachers.

Multiple project managers told us that other processes related or not to COG occurring at the same time as the COG project were stimulating the change process. Some of the processes discussed were national government policies, for example the new nationally set qualifications for the training programmes in Dutch SVE, which could easily be combined with the COG innovation:

> 'The renewed qualification structure … has a comprehensive or a much larger or bigger trajectory than COG. We see that and it is prioritised more. But that is also a project that involves the entire curriculum and COG is a part of that.' (Project Manager, school 19)

However, the numerous changes in Dutch SVE were also considered obstacles by some project managers. According to them, teachers and managers found it hard to prioritise COG in the long list of issues demanding attention.

In contrast to the interviews with the teachers, the project managers barely referred to the method of COG for lessons and guidance as a stimulating factor related to changes in role perception. Moreover, multiple project managers identified the dangers of choosing a method: teachers were likely to use them as a checklist and were unaware of the desired changes in attitudes and behaviour required to provide a career learning environment for students:

> 'Well, I'm not that much in favour of a method, because then everybody does that and then: "oh, I'm done". Yes, and that is something I notice now, because that is what we have already discussed, I notice that now among colleagues, they all know that we are on top of it [COG], that it happens and now you just see that everyone says: "Oh, we put ticks, I did this, I did that. They cannot say that I did not do my duty as a coach".' (Project Manager, school 6).

Finally, a few project managers suggested that the teachers' relatively new role as dialogical career guides should be integrated in the national teacher training programme and it could be part of the recruitment policy of their institutes.

Table 3 provides an overview of all organisational factors identified as stimulating for the realisation of a career oriented learning environment for students, by the teachers as well as the project managers.

School-specific stimulating factors

To address the research question concerning which organisational factors within the different schools stimulate changes in teachers' role perception in greater depth, we clustered the teachers and school coaches of the 18 different schools, as explained in the method section. In this way, we were able to explore the potential change patterns within the same schools (see Table 4), before matching with the project manager interviews of each of the schools to explain these patterns.

The results of the analysis for the second research question indicate that to establish change in the role perception of teachers towards a more career-focused and less diploma-focused attitude, there is a need for recurrent discussion of the content and process of the COG/SVE project, the implementation of workshops and training on conducting career dialogues and the existence of a school-level strategic policy and a team-level tactical policy. These factors are structural and organisational, which supposedly apply to the entire school. However, the clustered scores per school show that within the schools the change patterns of the individual teachers and school coaches are in many cases not comparable. The scores for the scales *diploma focused to career focused*, *monological to dialogical* and *directing to guiding* for teachers and school coaches in the same schools do not show the same developments, even though their organisational factors were comparable, as there was one project group per school. Therefore, based on the interviews with the 47 teachers, it appears that factors of influ-

ence differ for individual teachers, and the changes observed in teachers' role perception are not determined by school-specific cultural or structural factors.

Table 3. Stimulating organisational factors for changes in career oriented approach of students

	Stimulating factors
Teachers	
	Conducting dialogues or conversations
	Organised workshops or training
	Involved team leader
	Division strategy and tactic
	Team learning of teachers
	Involved middle and higher management
	COG Method for lessons or guidance
	Active school coaches
Project managers	
	Conducting dialogues or conversations
	Organised workshops or training
	Team learning of teachers
	Constructed tactic
	Division strategy and tactic
	Constructed strategy
	Involved middle and higher management
	Project group or ambassadors
	Other complementing processes outside of the project
	Integrate COG in national teacher training and recruitment policy

Table 4. Teachers' development in role perception, clustered per school

	Teacher	School coach	Development career focused	Development dialogical	Developemnt guiding
School					
1					
	1		.	.	.
	4		+	.	.
	6		+	.	+
		31p	+	+	.
2					
	2		.	.	.
		33p	.		
3					
	3		.	.	+
	5		.	.	.
		32	.	.	.
4					
	7		+	++	+
5					
	8		+	-	.
	9		+	.	.
	11		++	+	+
	12		.	.	.
	13		-	.	
6					
	10		.	.	-
		34	.	.	.
7					
	14				
8					
	15		.		
	16		+	.	.
	17		.	+	.
		36p	+		.
9					
	18		+	.	+
		38		.	
10					
	19			.	.
	20				.
		39	.	.	.
		43	+	.	.
11					
	21		.	-	+

	Teacher	School coach	Development career focused	Development dialogical	Developemnt guiding
	22		.		-
		44	.	.	.
12					
	23		.		.
	24		+	.	.
13					
	25		+	.	+
14					
	26		.	+	
	27		.	.	.
	28		++	+	+
		47	+	.	+
15					
	29		.	+	.
	30		-	-	
		39	.	.	.
		45	++	+	.
		46	.	.	+
16					
		35	+	.	.
		37	+	+	
17					
		40	.	.	+
		42	.	-	.
18					
		41p	+	.	+

p = also project manager, n = non response, empty = no scoring possible due to the content of the interview
- = 1 score down, . = same score, + = 1 score up

Conclusion and discussion

With this study, we aimed to answer two research questions: (a) To what extent has the role perception of teachers participating in the COG/SVE project changed since its start? and (b) What changes in the school organisation, influenced by the project, have stimulated individual changes in teachers' role perception? By answering these questions, a more complete understanding of teachers' role perception and the (conditions of the) role-changing process can be formulated. This contributes to more effective programmes for developing professionalism and individual guidance in the context of educational reform as it provides an analytic lens for teacher role development, for insight

into organisational factors that contribute to the development of teachers' role percep-
tion and for sense making by teachers themselves in times of uncertainty and change.

The teachers showed the most considerable developments from being primarily di-
ploma focused to primarily career focused. They were more diploma focused at meas-
urement 1, the starting situation, but they scored higher on being career focused at the
last measurement in 2016. On the *monological to dialogical* and *directing to guiding*
scales the teachers typically scored higher at measurement 1 than on the *diploma-
focused to career-focused* scale. Less development was therefore shown on these scales
through the following measurements. This can probably be explained by the positions
these teachers held within their organisations. All teachers except six taught subjects in
classes, but although the COG/SVE project requested complete teacher teams to partic-
ipate in the training programme, most schools sent groups of teachers already active in
some form of student guidance, such as mentorship and work placement supervision.
This explanation for the high scores related to a dialogical and guiding perception of
their role as a (good) teacher suggests that the form of their approach to students
might not have shown substantial development, although the content of their commu-
nication with students became considerably more career focused than in the first
measurements at or right after the first training day of the project.

The school coaches scored generally higher than the "regular" teachers in meas-
urement 1 and the last measurement for all three scales. At the first measurement
point, this could be explained by their probable prior affinity with (career) guidance, and
in the second measurement also by the extended training that school coaches received
to train teams of teachers in conducting career dialogues. The school coaches not only
received more information and practice than the other teachers, but also guidance in
actively processing this information and integrating practice in their own COG training.
This indicates that extended training such as that provided by school coach training is
highly beneficial to changes in teachers' role perception.

The teachers and the project managers generally reported similar organisational fac-
tors within the different schools as stimulating this change in teachers' role perception.
Communication and open conversations between teachers on the topic of COG, as well
as conversations between teachers and team leaders or higher level managers, provide
stimulation as they inspire the teachers and help them gain clarification of the concept.
In-school workshops and training concerning COG stimulate the gathering of infor-
mation and practising of skills, as well as the development of a strategic policy with
room for teams to construct tactical plans, providing them with clarity and autonomy.

Furthermore, learning about COG as a teacher team collectively and constructing a
shared team ambition and plan for implementation is important for sustainability. The
teachers reported that the responsibility of the team leaders and higher managers lies
in prioritising, inspiring and answering questions on the topic and this can also be
brought about by active school coaches or COG project group members. Moreover, the
project managers emphasised the importance of the involvement of the team leaders

and higher managers as the managers need to support and facilitate the individual team members and the teams as a whole. These findings are in line with previous research on the structural and cultural effects of the COG/SVE project, which showed that ongoing communication, clear policy and direction and learning as a collective are required to establish changes in the learning environment of students.

In this study, multiple project managers found that it is essential for managers to approach their teachers in the same way that they are expected to approach their students, i.e. dialogically, since "example is better than precept". In her inaugural speech, Geijsel (2015) stated that showing an example of being open to learning and to dialogues about uncertainties helps improve educational practice. This is in line with recent literature on dialogical leadership as leadership is relational and contextual and a dialogical approach to the change process is essential for the development of "a deeper level of awareness and action" (Van Loon & Van Dijk, 2015, p. 73). Furthermore, dialogical leadership can contribute simultaneously to setting boundaries and creating space for the individual when new collective action and policy are required (Day, Gu, & Sammons, 2016; Geijsel & Meijers, 2005).

The organisational stimulating factors identified by the teachers and project managers appear to exert different influences on the individual change processes of the teachers. Within the schools represented in our study, the change patterns of the individual teachers and school coaches differ and therefore seem to be stimulated but not determined by school-specific structural factors. Although the teachers spoke about organisational factors stimulating their own process and these factors are to a large extent comparable between all interviews, it appears that teachers in the same schools and thus within comparable contexts differ in terms of their development in role perception. Therefore, we conclude that a change in role perception is a collective matter concerning communication and team learning, but it requires support and guidance for each individual, addressing their own influential personality factors and the fact that they are undergoing their own process of uncertainty and doubt. Changing established roles is challenging (Den Boer & Hoeve, 2017), often difficult and even painful (Korthagen, 2004) as a change of behaviour can cause uncertainty. Therefore, it requires a form of guidance that is open, dialogic and safe, one in which vulnerability is allowed. It is recommended that team leaders and higher managers, but also colleagues and external trainers, dialogically and individually support the needs of individual members of the teacher teams (Geijsel, 2015). A dialogue is something other than a conversation; it assumes pluralism and even benefits from conflict (Castelijns, Vermeulen, & Kools, 2013; Chiva, Alegre, & Lapiedra, 2007) and allows for vulnerability and creating new meaning rather than information exchange and seeking consensus (Van Loon, & Van Dijk, 2015).

Furthermore, collective learning proves to be essential for educational innovation as the aim is improvement in a collective context (Castelijns et al., 2013; Lodders, 2013). However, each collective consists of individual stakeholders who simultaneously under-

go an individual learning process (Lodders, 2013). For individual learning too, however, social interaction is required since it contributes to making tacit knowledge explicit (Fullan, 2007; Nonaka & Takeuchi, 1995; Van Woerkom, 2003). Individual learning therefore requires reflection, which takes place in internal as well as external dialogues (Schellhammer, 2018). After making the new knowledge and skills of the individual explicit through dialogic reflection, this knowledge can be shared with other members of the collective and function as an opening for further dialogue. In this way, dialogue and reflection are not only awarded to students; rather, by maintaining the principles of COG throughout the organisation, a dialogic (career) learning environment can also be established in the work environment of teachers.

Limitations and future research

This study is exploratory in nature as, to our knowledge, research on transforming the role perception of teachers regarding career guidance has not been conducted before. Therefore, our frame of analysis is developed for this study. Although we have discussed the categories in relation to our data thoroughly and we consider our analysis sets out the rather abstract concept of role perception regarding dialogical career guides accurately, it would be advisable to advance a framework for future research. As we scored the interviews within the framework by looking for segments that expressed the categories formulated, we recommend quantifying the categories by means of the example statements in Appendix 2. In this way, quantitative research on measuring role perception regarding career guiding can be developed.

Furthermore, the teacher interviews we analysed in determining role perception were all self-reported and therefore subjective. Previous research has shown that teachers evaluate their student-centred attitudes as higher than their students do (Meijers, Kuijpers, & Bakker, 2006) and higher than what is apparent from observations (Assen et al., 2016). Taking this into consideration by drawing conclusions based on the behaviour originating from the role perception of teachers is recommended. However, the results of the interviews with the project managers, who reported on the teachers within their organisations, were generally similar. In addition, previous research concerning the effects of teacher training on career dialogues promoting career competency development have shown that training – including individual coaching – results in teachers asking more career oriented questions (Kuijpers & Meijers, 2017).

Future research could determine the ways in which changes in the role perception of teachers are related to changes in actual behaviour towards students, both individually and in the collective routines and practices of teacher teams. Furthermore, the participating teachers in our research signed up for the COG/SVE project voluntarily, or were chosen to participate by their organisations. This could indicate their affinity with (career) guidance was higher than average, as the results for the first research question

also seem to indicate. However, our research of the process is descriptive and therefore context dependent and we did not pursue representation in some way other than for the process of the COG/SVE project.

We found that fostering changes in teachers' role perception can be viewed mainly as an individual process in interaction with the environment as opposed to primarily focusing on collective learning processes. To gain more insight into this individual process and the way in which it can be guided or supported by others, we recommend focusing future research on the interplay between the individual, the collective and the context. The perspective of professional identity learning is a valuable addition to the role perception perspective as professional and personal identity learning includes other roles, tasks and personality traits of teachers (Assen et al, 2016; Trede et al., 2012; Vloet, 2015). Further research in this area could help define the – as yet – ambiguous concept of professional identity and the external influences on its formation and transformation processes.

Appendix 1. Topic list and example questions semi-structured interviews

Teacher interviews	Project manager interviews	Example questions
Experienced changes: - organisational level - team level - student level - the daily practice	Experienced changes: - organisational level - team level	Can you describe what has changed within your organisation/your team, since the start of the COG/SVE project?
Experiences with career dialogues with students	Process description: - creating and documenting - implementing the renewed policy on COG	What experiences do you have with conducting career dialogues with students? What differences do you see in their reaction?
		Can you describe how the development of the renewed policy on COG took place?
Involvement of: - team managers - middle managers - higher managers	Involvement of: - middle managers - higher managers	What is the perspective of your team manager on COG, and what example demonstrates that?
Needs and wishes	Needs and wishes	What is it that you need, on any aspect regarding the COG innovation?
Own perspective on role in career orientation and guidance of students	Own perspective on role in career orientation and guidance of students	What has changed in your view on career organisation and guidance? In what way differs your own vision on COG from the vision of the organisation? And in what way is the COG project different from other innovation projects?

Appendix 2. Scales of role perception for analysing teacher interviews

Diploma focused to career focused

1. Mostly diploma focused. The only purpose of our education is to obtain the diploma, because the students have already chosen their course. I try to keep them in and help them through their courses. Conversations with students are about diploma's, grades and study skills.

2. More diploma focused, less career focused. COG is a method and consists mainly of choosing further education and preventing drop out. Students have already chosen their course, but if that choice proves to be wrong, I'll help them find something else. I keep an eye on the students' possibilities and keep them realistic.

3. More career focused, less diploma focused. I need to pay attention to the students' career, and switching is fine if that is better for the student. I give students classroom assignments in preparation for their career, and continue on what they take from the pre-education regarding career orientation. I talk with them about their work placements.

4. Mostly career focused. I am a COG guide. I prepare students for lifelong learning and their future. Career guiding is an important task of secondary vocation education, and my job is to help students develop and reflect on their career skills, and to maintain their dreams. We are failing our students if we do not to this.

Monological to dialogical

1. Mostly monological. I inform students about further education and about the student himself (what he can or does). Conversations with students should be short and effective, through certain conversation techniques. If students are doing well, they do not need dialogues with me.

2. More monological, less dialogical. I work with my students in groups at COG assignments, where they talk to each other about their careers. I conduct one-on-one conversations with students who are not doing well, not with the students that are doing well.

3. More dialogical, less monological. I can help students reflect and develop by asking questions about their qualities and motives. For these conversations I wish to take the time, which is not always possible. Sometimes I give group assignments on COG, but I also want to conduct one-on-one career conversations with all students, including the ones who are doing well.

4. Mostly dialogical. I conduct dialogues with students as often as possible, also during and between classes, and I am an equal conversation partner. I listen and take students seriously. I pay as much attention to students who are doing well as to those who are not, and try to find the (individual) dialogue with students in group lessons.

Directing to guiding

1. Mostly directing. I direct students in their career, and conduct conversations with students to bend them towards a different course if that is more suitable. Students often do not know what they want and can, and I mostly do. Students who are doing well do not need guidance.

2. More directing, less guiding. I try to show students the right direction, and I advise on their career. I can make them more aware of what they want and can.

3. More guiding, less directing. I want to motivate students to the next challenge, activate them, make them think. I find guidance interesting, and I look at the individual students. I ask what they are going to do themselves, what steps they are going to make. I can help them learn and reflect by developing career competencies.

4. Mostly guiding. I am a guide, as every good teacher is. I listen to students, follow their development, offer support where necessary and help them take their own steps. Education is about what the students want, not about what the school / teacher / government wants.

Appendix 3. Coding schema teacher interviews and project manager interviews

Table 5 Coding schema

Codes	Sub-codes
1. Active school coaches stimulate	
2. COG classes scheduled stimulates	
3. COG Method for lessons or guidance stimulates	COG Method hinders
4. Conducting dialogues or conversations stimulates	Collaboration between different levels stimulates Stimulation by method of consultation Not conducting dialogues or conversations hinders
5. Continuation or monitoring project COG stimulates	
6. Division strategy and tactic stimulates	Constructed strategy stimulates Constructed tactic stimulates Missing strategy or tactic hinders
7. Involved middle and higher management stimulates	No involvement middle and higher management hinders
8. Involved team leader stimulates	No involvement team management hinders
9. Organised workshops or training stimulates	
10. Other factors outside of the project that stimulate or hinder	
11. Project group or ambassadors (other than school coaches) stimulate	
12. Providing information stimulates	
13. Team learning of teachers stimulates	
14. (Suggestions for stimulation)	

Chapter 6

General conclusions and discussion

Preparing today's students for the flexible and rather unpredictable careers that lay ahead of them requires a different learning environment than the one that is suitable for traditional, relatively stable careers. In Dutch vocational education, this requirement is answered by the government-initiated innovation project 'Career Orientation and Guidance in Secondary Vocational Education' (COG/SVE). The project aims to introduce so-called strong career learning environments that stimulate the development of a reflective, inquiring, and flexible attitude or career competencies. Developing such an environment requires a change in the attitude of teachers. The creation of the strong career learning environments therefore asks for an educational innovation that attends to sustainable change in culture and structure and, consequently, in the beliefs and behaviour of teachers.

In order to promote career learning environments in education, 37 secondary vocational education institutes participated in COG/SVE. The project consisted of a training programme for teachers to improve their career dialogues with students, as well as professional guidance in order to integrate a dialogical inquiry- and practice-based approach to career counselling into the schools' policy. The training programme consisted of both off-the-job and on-the-job stages. In the off-the-job stage, teachers were taught how to encourage students to develop career competencies by conducting career dialogues. In the on-the-job stage, the emphasis was on the transition of training for the school environment. Participating teachers took part in in-school training sessions with their school coaches; teachers who participated in an extended off-the-job training programme in order to coach their own colleagues. Furthermore, schools received professional guidance focused on formulating a vision and policy regarding career learning. By means of this project, secondary vocational education schools were encouraged to innovate their education from diploma focused to become (more) career focused and to develop a strong career learning environment for their students.

Literature on educational innovation suggests that collective learning of teachers and transformational leadership are conditions for cultural change (Bouwmans, Runhaar, Wesselink, & Mulder, 2017; Castelijns, Vermeulen, & Kools, 2013; Fullan, 2007; Geijsel, Meijers, & Wardekker, 2007; Geijsel, Sleegers, Stoel, & Krüger, 2009; Lodders, 2013; Lodders & Meijers, 2017; Thoonen, Sleegers, Oort, & Peetsma, 2012). Previous government-initiated innovation programmes in the Netherlands struggled to realise their ambitions (Consortium 2B MBO, 2017; Hooge, Theisens, & Waslander, 2017, Meijers & Kuijpers, 2015). The aim of our longitudinal research project is to gain insight into the role of collective learning, transformational leadership, and policy development in schools in the establishment of strong career learning environments. We aim to get a clear perspective on stimulating factors and obstacles on the level of the involved teachers and in-school project managers. Our general research question is:

In what way does the national innovation project COG/SVE influence cultural and structural changes in the work environment of teachers and, consequently, in the career learning environment of students?

The research project was longitudinal in nature, designed to gain theoretical and practical insight into the influence of the project COG/SVE on participating schools over the long term. Since we examined the teacher sample at four different moments by means of semi-structured interviews, we were able to determine actual changes in organisations and individuals over time. See Table 1 for an overview of our measurements. Furthermore, we conducted three case studies to gain deep insight into the policy formulation and implementation process. Three schools were strategically selected, and here data were gathered from March 2015 to June 2016.

Table 1 Timeline measurements and respondents

	Measurement 0 Sept–Dec 2013	Measurement 1 Oct 2013–Jan 2014	Measurement 2 April–June 2014	Measurement 3 April–May 2015	Measurement 4 April–June 2016
Teacher selection questionnaire	N^1=238				
Teacher interviews		n=50	n=48	n=45	n=47
Project manager interviews			n=38		N=39

[1]N = the total sample, n = a sub-sample of the total sample

In this chapter, we first summarise the results of four studies that were conducted during the innovation project. Study 1 focused on the immediate developments in the work environment of the teachers right after the start of the programme. Study 2 described how teachers and project managers of the participating schools perceived the developments regarding career orientation and guidance (COG) in their own work environment and the learning environment of their students during the first two measurements. Study 3 portrayed the process of policy shaping and implementation in three vocational education institutes that participated in the project, by means of three case studies. Lastly, study 4 provided a description of structural and cultural changes as perceived by teachers. After summarising the results of the four studies, we discuss the main conclusions of our longitudinal research project, provide practical implications that derive from our conclusions, and reflect critically on the process of our research trajectory.

Summary of results

To answer our main research question, we conducted four studies with multiple research questions that collectively provide insight into the process of changing the culture and structure of schools, in order to create strong career learning environments.

Study 1: The start of the development of strong career learning environments
The first measurement immediately after the off-the-job training provided insight into the initial developments in the work environment of the teachers. We aimed to get insight into the teachers' perspectives on the following questions:

1. How and to what extent does the project COG/SVE succeed in starting a process towards strong career learning environments that are dialogical as well as practice- and inquiry-based?
2. To what extent does the project stimulate collective learning of the teachers?
3. Is transformational leadership present to promote the development of a strong career learning environment?

These questions contribute to answering our main research question, as the way teachers perceive the impact of training programmes in an early stage affects the potential success of programmes within a particular school and with a given teacher (Han & Weiss, 2005).

The results indicated that, since the start of the training programme, most teachers felt more confident about their skills to conduct a career dialogue with their students, even though they wished for more training for themselves and their colleagues. The teachers did not mention an important pillar of the project: the development of a renewed vision and policy regarding career guidance to realise a more practice- or inquiry-based curriculum. It seemed that most teachers were not involved in, and more so, were not aware of the development of such a school policy. Accordingly, a process towards a strong career learning environment had started on the level of the career dialogues between teachers and students. However, the development of a practice- and inquiry-based learning environment for students was not noticeable for the teachers.

Teachers and their colleagues often spoke about the absence of, and an explicit wish for a clear vision on, the renewed strategy for career orientation and guidance. Ambiguity about the project was evident, as many teachers did not quite know why they were asked or sent by their managers to participate in the training programme. This lack of developing a shared vision collectively and individual support in the form of explanation or conversation about participating indicated the absence of collective learning as well as of transformational leadership in the schools that participated in the project COG/SVE. Moreover, the on-the-job stage of the training programme, as well as involvement in the development of a renewed vision and strategy on COG, was mostly

not organised for the teachers. After the first measurement, therefore, we concluded that the presumed conditions for educational innovation were mostly absent, but on the level of the teachers, attention for the dialogical aspect of the learning environment was growing.

Study 2: Progressing towards a strong career learning environment
This study described how teachers and project managers of the participating schools perceived the developments in their own work environment and the learning environment of their students during the first two measurements, by means of the same research questions as in chapter 2. Interviews for the first measurement were conducted at the start of the project, and the second measurement occurred about six months later, as seen in Table 1. The results of the two measurements showed that the teachers who participated in the project focused on further improving the dialogical aspect of the learning environment. In the organised on-the-job stage of the training programme, the emphasis within the teacher teams was on giving each other feedback on the conducted and recorded career dialogues. In-school training for other teachers was then organised as well.

Between the first and the second measurement, there seemed to be increased clarity on the schools' vision on COG and the aims of the project. However, this vision was known but not supported by all teachers. Visions and ambitions regarding career guidance were not constructed and shared by teacher teams and individual teachers, and teachers had different perspectives on the roles they and their schools should play in developing the students' career competencies. It appeared that the renewed vision on COG was developed by the project managers and school leaders and then was imposed on the teachers. Regarding collective learning of the teachers, the results seemed similar to the first study, as a shared and widely supported vision on career orientation and guidance was absent. This appeared to withhold the teachers and the project managers from engaging in further collective learning. Moreover, the project managers specifically wished for more involvement and support from middle management (team leaders) and higher management (directors, executive board). Since directing the development of a shared vision in a situation of innovation is an important aspect of transformational leadership, this leadership style did not seem to be experienced by the teachers or the project managers.

Study 3: Process description of improving career guidance policy in three schools
The third study described the policy-shaping process and implementation in three vocational education institutes that participated in the project COG/SVE to investigate the role of school policy in realising strong career learning environments. Three case studies were conducted to gain deep insight into the innovation process initiated by the project regarding the formulation and implementation of a policy on career guidance, and into

the role of dialogues, collective learning, and leadership during this process, by means of the following research questions:

1. To what extent is a clear distinction visible between strategic policy and tactical policy?
2. To what extent are dialogues conducted between managers and teachers, as well as among teachers?
3. To what extent does the dialogue between managers and teachers, as well as among teachers, contribute to the realisation of strong career learning environments?
4. Which leadership style stimulates the collective learning process?

We found that all three schools sought to formulate a new policy on career guidance, but only School 3 attained the formulation of a clear strategic and tactical policy and started to succeed at implementing these policies. From our three case studies, it appeared that dialogues between managers and teachers, as well as among teachers, eventually stimulate changes in the learning environment of students in vocational education. Formulating and implementing a school-wide strategy required dialogues between the different levels of the organisation to construct and collect visions, ideas, and dilemmas and to create room to discuss these. This clear framework for implementation concerning time, money, support, and organisational goals seemed advisable, as it gives teachers a sense of direction. Without a strategy, it seemed that teachers and middle managers experienced too little direction to engage in substantive dialogues on the innovation and, consequently, to start a collective learning process. Furthermore, formulating the tactical policies of teacher teams without dialogues between the teachers resulted in teachers being unable to attach meaning and a shared ambition to the innovation; consequently, a collective learning process could not commence, and division of roles and responsibilities within teams was unclear. The school that eventually seemed to succeed in formulating an embedded strategic policy showed continuous dialogues between the different levels of the organisation about this policy, and the strategy kept getting shared and mentioned by the managers, with room for teachers and team leaders to share their ideas and dilemmas. Furthermore, this school worked on the policy formulation and implementation by means of continuous communication between the policymakers, teachers, and (higher) managers through a standard method of consultation: structural meet-ups on the topic of implementing COG.

Study 4: Changes in teachers' role perception regarding career guidance
The fourth study showed the outcomes of the changes in the work environment of teachers, brought about by the project. This study provided a description of the changes in the organisations of the schools initiated by the project and the changed perceptions of the participants' role as teachers, by conducting interviews with the teachers and project managers on four different measurements. Furthermore, it explored which

factors contributed to the change of views on their teaching role, as these views are a substantial aspect of the schools' culture. We aimed to answer the following questions:

1. To what extent has the role perception of teachers participating in the project COG/SVE changed since the start of the project?
2. What organisational factors stimulate this change in teachers' role perception?

The results showed that teachers were considerably more career focused at the fourth measurement than they were at the start, when teachers were more diploma focused. Teachers who received extended training to become a school coach scored generally higher than the 'regular' teachers during the first and last measurements on being career focused, as well as on being more guiding than directing and being more dialogical than monological.

Teachers and project managers reported similar organisational factors within the different schools, that stimulated the changes of teachers' role perception, as important for sustainable change. They mentioned that learning together as a teacher team in the form of in-school workshops and training on COG stimulated gathering information on COG, and they practised their career guidance skills. In addition, a strategic policy with room for teams to construct tactical policy provided, according to the teachers, clarity and autonomy. According to teachers, team leaders and higher managers were responsible for prioritising, inspiring, and answering questions on the topic of COG. However, in several cases, active school coaches or COG project group members adopted these responsibilities successfully. Conversations between teachers and team leaders or managers stimulated the change in role perceptions, as they were identified by teachers as inspiring and helped to clarify the concept of COG. Moreover, project managers emphasised the importance of involvement of team leaders and higher managers. Project managers expected the middle and higher managers to support and facilitate individual team members and teams as a whole, but this was often not experienced.

The stimulating organisational factors reported by teachers and project managers differed in influence on the individual role perceptions of the teachers. Different change patterns for individual teachers and for school coaches of the same schools or even teacher teams were found, even though organisational factors mostly applied to the entire school. The changes in role perceptions of the individual teachers, therefore, seemed to be stimulated in different ways.

Main conclusions and discussion

This section contains an overview of the main conclusions from our research, focusing on the influence of the project COG/SVE on cultural and structural changes in the work environment of teachers and, consequently, in the learning environment of students. Based on the results of four studies, we conclude that for collective learning regarding

career guidance to start, shared and supported ambitions regarding the outcomes of the project are needed. Moreover, transparency of the managers on and involvement of the teachers in the plans to achieve these outcomes are required. Furthermore, the project did not actively involve managers in the process, which led to the fact that the aims of the project were not being prioritised by managers and, consequently, neither by many teachers. Collectively developing and implementing renewed policy on COG on the school level and recurrent conversations regarding this topic between teachers and with managers influenced cultural change on the teacher level. However, our fourth study showed that the extent of the influence of these organisational factors differed greatly among the individual teachers.

Cultural and structural changes in the school environment

The results of our studies showed that a majority of teachers changed their role perception during the three-year innovation project. In the third year, teachers were more career oriented in their communication with students, and they increasingly invested in conducting more career dialogues with their students than before the start of COG/SVE, according to the teachers and project managers. However, the patterns of changes in role perception of individual teachers and school coaches were highly different. Although the school-wide implementation of the innovation was organised by one project manager or project group at each school, results on the teacher level differed within the schools. It appears that changes in the approach of students were mostly not consistently and sustainably secured in the structure of the schools. The change towards a dialogical learning environment depended, therefore, highly on the individual teachers, despite the emphasis of the project on creating structural school-wide supported policy.

These findings correspond with the findings of a recent research project that describes steering dynamics in Dutch schools (Waslander, 2017). This study showed that specifically topics with high managerial priority were more addressed by teacher teams. Teachers individually handled topics that received little priority of managers. Individual teachers did not coordinate or barely coordinated their approach within their teams. This lack of coordination between teachers of the same teams and the underlying lack of prioritising by management could be an explanation for indications in our studies that teachers of the same schools or even of the same teacher teams show different attitudes. This will inevitably lead to a different approach and inconsequent behaviour towards the students regarding COG. Furthermore, depending on individuals to carry out the innovation process regarding career learning environments is delicate, considering the lack of responsibility and knowledge that remains within the team when these individuals stop working in their current roles.

Focusing on school coaches (teachers who received extended training on COG and thereafter organised training and a workshop for their own colleagues), we found that the development in more career focused guidance conversations was more substantial

than for 'regular' teachers. It seems that reciprocal learning (Hattie, 2008), by means of translating the results of the extended training in a self-constructed training or workshops for colleagues, contributed to more fundamental changes in role perception of school coaches. Another explanation for the higher scores of school coaches on being career focused in their guidance conversations is their possible affinity to dialogical career guidance beforehand as a reason for their participation in the project.

Factors and processes influencing innovation

Teachers and project managers of participating schools emphasised the stimulating effects of their involvement in constructing a shared ambition, learning together as a teacher team, supporting individual learning through dialogues, and involved and prioritising management for creating strong career learning environments for students. In this section, we elaborate on these factors.

Involvement in constructing a shared ambition. Our first and second measurement showed that the innovation process of developing career learning environments started with difficulties, as participating teachers were mostly not involved in the construction of a vision and policy on the career learning environment for their students. Moreover, the vision and policy development happened parallel to but also separate from the formal training programme. Therefore, most teachers were expected to learn and practise new behaviour towards their students, without the existence or knowledge of an agreed upon direction regarding career guidance. The vision and policy on COG was not developed with, shared with, and known by all teachers. This led to a lack of ownership regarding the implementation of COG. Neglecting to stimulate this involvement and perceived autonomy might explain the difficulties in support and effort that occurred during the creation of career learning environments. Actively involving teachers in the process of innovation creates space to learn, to develop beliefs and attitudes, and is therefore a well-known condition for successful educational innovation (Castelijns et al., 2013; Fullan, 2007). Furthermore, involvement of teachers in the form of task autonomy, which can be defined as the perception of ownership and responsibility, contributes to motivation for teachers' professional development (Deci & Ryan, 2008; Jansen in de Wal, 2016). As teacher professional development is regarded as crucial for educational change (Lieberman & Pointer Mace, 2008), involvement of teachers to achieve task autonomy contributes to development of career learning environments.

Learning together as a teacher team. The lack of involvement of teachers seemed to be related to a lack of thorough and fully executed collective learning processes in most schools. In interviews about the innovation project, the schools' project managers and teachers often discussed collective learning in terms of 'formal learning', such as the COG workshops and training. However, collective learning entails more than listening to lectures or practising new skills. Lodders (2013) defines collective learning as work-related learning processes of a collective that strives for common learning and/or work-

ing outcomes. Castelijns et al. (2013) agree that collective learning is working together on and achieving common shared ambitions. Collective learning in a situation of innovation, as defined by Castelijns et al. (2013), suggests a learning cycle for teams through multiple phases, on the basis of common ambition. Our findings suggest that addressing the complete collective learning cycle is recommended or even required to establish sustainable change in collective behaviour of a teacher team. The first phase of determining ambitions and goals of the learning process together was often neglected. This led initially to confusion and later to resistance of the imposed vision. As the project continued, individual teachers developed their own vision on innovation regarding COG, with their own perspective on the priority of the innovation process and practical interpretation of career dialogues. The often made choice of schools to implement externally developed lessons and instruments instead of collectively developing a career environment based on a shared vision, could be another consequence of the lack of collective learning. Using lessons and instruments that are not embedded in the learning process of students and do not have clear goals and understanding of teachers will most likely not lead to creating a career learning environment for students. Therefore, it will not stimulate reflection on experiences regarding career that takes place in career dialogues with an appreciative and activating nature. A change in attitude and behaviour towards students is preferred for sustainable change, as opposed to an instrumental adjustment of daily classroom practices. This means that the process of collective learning should not be approached as a collective term for 'social learning' or formal or informal professionalising activities, but as an implementation model in situations of change, where every phase deserves emphasis.

Supporting individual learning through dialogues. Our research shows the importance of dialogues in guiding the collective learning process of teacher teams and, moreover, in guiding the individuals within the teams. The influences of the project depended highly upon the individual teachers in our research. Findings indicated that individual guidance throughout the learning process where personal meaning is attached to the experiences of individual teachers, is beneficial for their learning process, as collective learning is inevitably accompanied by individual learning. These results are in line with recent research of Assen, Koops, Meijers, Otting, and Poell (2018), who showed that dialogues with others (managers, other teachers) on teachers' teaching experiences stimulated awareness and improvement of their teaching behaviour and promoted engagement in professional development. Furthermore, recent literature on dialogical leadership emphasised the need for individual guidance during a collective learning process as well, as a dialogical approach to change processes is essential for the development of 'a deeper level of awareness and action' (Van Loon & Van Dijk, 2015, p. 73). Dialogical leadership can additionally contribute simultaneously to setting boundaries and creating space for the individual when new collective action and policy are required (Day, Gu, & Sammons, 2016; Geijsel & Meijers, 2005).

Involved and prioritising management. Our results show that it is not productive when managers act as if the implementation of renewed COG can be realised by an exclusively 'bottom up approach', and to leave it up to teachers to design and organise their collective and individual learning without clear communication on the project as a whole. A review of Govaerts and Dochy (2014), too, showed that supervisor support and involvement is essential for applying skills and knowledge developed during a training programme in the work environment. Moreover, in a recent review regarding leadership for team learning, Koeslag-Kreunen, Van den Bossche, Hoven, Van der Klink, and Gijselaers (2018) found that team leadership behaviour explains 18% of variance in team learning behaviour, with person-focused team leaders being more influencing than task-focused leaders. In collective learning theories, it is stressed that managers ought to take responsibility to guide construction of a shared vision (Lodders, 2013). This practice is mentioned as a main characteristic of transformational leadership. We recognise this requirement of transformational leadership in our research by the articulated needs of teachers as well as project managers. In the case studies, we saw that a lack of actively involved higher managers obstructed the innovation process, because it caused a lack of active involvement of teachers. In fact, one of our case studies showed that where managers co-constructed a school-wide strategy with a clear direction for and with the teams, teams were successful in creating a framework to construct their tactics regarding COG. In this case study, we found a combination of transformational leadership and instructional leadership to be effective. The effectiveness of this combination is also argued in recent work on educational leadership practices (Bush & Glover, 2014; Day et al., 2016; Geijsel, 2015; Hallinger, 2003). Instructional leadership is focused on the goal of improving student learning via teachers and is executed by one expert principal in a directive way to establish clear education goals, while transformational leadership focuses primarily on the process of how leaders influence their employees.

Implications for practice

Implications for national policy developers

When organising an educational innovation regarding the development of career learning environments, we recommend to involve school managers in the application and implementation of the renewed policy from the start, so that they can explain and facilitate new policies, establish clarity on the form and content of the project for the teachers, and moreover guide the collective learning process of the teacher teams in an involved manner. Furthermore, collective learning should be approached as an implementation model; it is highly advisable to address all the different phases, as defined by Castelijns et al. (2013), during a process of innovation. Lastly, realising a structural and distinct method of consultation with frequent meet-ups on participating schools is

stimulating for the realisation of career learning environments. Communication in reflection and evaluation can be organised in a structured and regular manner, by means of peer-consultation and supervision. This advice is in line with conclusions of the previously mentioned study of steering dynamics in Dutch education, where stable patterns of coordination by means of control cycles and planning meetings created alignment within the school organisation (Theisens, Hooge, & Waslander, 2017). Realising this structural communication on the innovation process by organising a distinct method of consultation with frequent meet-ups is therefore advisable.

Implications for in-school policy developers and managers

For middle and higher educational managers, it is important to make the goal and strategy of the desired changes transparent and clear for all those involved. In our research, we found that teachers needed explication and direction from middle and higher management to understand in what way and why they participate in an innovation process. Thereafter, to realise collective learning of teachers, we recommend that team leaders and location directors take on their role of guides in this process. For teacher teams, determining the direction and space to realise the goals of the learning process together and with their managers is likely to be of positive influence on the outcomes of innovation. Constructing a shared ambition by conducting dialogues about the school's vision and teachers' personal visions is the first phase of collective learning and functions as the starting point for change. When the outcomes of innovation are prioritised, ad hoc reactions of individual teachers are avoided (Waslander, 2017). Thereafter, team leaders and higher managers should continue to prioritise and facilitate the full collective learning process.

Our research suggests that a dialogue between managers and teachers, preferably on a regular basis, supports changes in the learning environment of students, since formulating a school-wide strategic policy requires communication between different levels of the organisation. The dialogical attitude is, therefore, stimulating for communication between teachers, team leaders, and higher management. Dialogues between managers and teachers remain essential throughout the implementation process and are required to simultaneously set boundaries and create space at the organisational as well as individual levels. The school context and culture – values and norms – determine the strategy and implementation (Day et al., 2016; Geijsel, 2015; Gronn, 2009; Hallinger, 2003). Personal needs, values, and possibilities of students, teachers, teams, and school management should be taken into account. School culture and leadership influence each other and are both essential in achieving sustained improvement (Fullan, 2007; Hallinger & Heck, 2010). Therefore, we propose a strategy where instructional and transformational leadership styles work simultaneously. Control and direction are, in some situations, more beneficial than autonomy and 'bottom-up', but in other situations, it works the other way around (Bouwmans, Runhaar, Wesselink, & Mulder, 2018).

It is up to the middle managers to determine the extent of control and autonomy needed in different situations of educational innovation, as suited for the context of the school or the teacher team.

Finally, implementing educational innovation is a collective matter through team learning, but it requires support and guidance for each individual, to address its own process of change. Changing established roles is challenging, since adapting routines touches the roots of the teaching practice, and it causes feelings of insecurity and incompetence, as developed and improved sets of competencies are to be released. Therefore, changing routines is very difficult, takes time, and requires involvement of all members of the organisation (Den Boer & Hoeve, 2017; Waslander, Theisens, Hooge, & Pater, 2017). In our research, it is shown that change towards career learning environments therefore asks for a form of guidance that is open, dialogical, and safe, and where vulnerability is allowed. It is advisable to stimulate the dialogical and individual support that individual members of teacher teams need in times of changing routines. In this way, dialogue and reflection not only benefit students, but by maintaining the principles of COG throughout the organisation, a dialogical (career) learning environment can be established in the work environment of teachers too.

Implications for teachers

Based on our research, we recommend teachers to engage in communication and dialogues, with managers as well as with other teachers. It is appropriate to ask for individual guidance as well as structural peer-feedback, as feelings of insecurity and uncertainty are likely to occur during innovation processes. Discussing them might provide acknowledgement and autonomy during a changing work situation, and it is shown that responsibility should be taken on the individual teacher level. Our research showed that teachers participating in the project mostly concentrated on one aspect of the career learning environment; the career dialogue. The development of the practice- and inquiry-based learning environment was mostly not addressed by teachers. However, these aspects provide content of reflective dialogues, as they stimulate experiences that are worth reflecting on. Consequently, creating a learning environment for career focused education requires taking responsibility in organising circumstances for students to reflect on and learn from. Finally, we suggest dialogical career guidance for teachers on a regular basis. For one thing, it provides a sharper perspective on career dialogues that are to be conducted with students. Moreover, reflection on experiences attaches meaning to these experiences, and learning from them for future situations and (career) choices is just as important for teachers as it is for students.

Critical reflections and recommendations for future research

In this section, we elaborate on the restrictions of studying the national innovation project that had already started when our research began. Secondly, we explain how quantitative aspects of our research stagnated due to many changes in positions and responsibilities of teachers. We further discuss the limitations of our qualitative studies with their implications for future research, as already comprehensively described within each chapter, as well as the strengths of our studies. Lastly, we explicate why some of the envisioned outcomes of the project in the learning environment of students were not yet perceived.

Studying the project: getting on board on a moving train

When we started our research in September 2013, the innovation project COG/SVE was already launched, based on research of Kuijpers et al. (2011, 2012); the project office MBO Diensten developed and distributed its project plans; schools were already involved in guided development of a renewed policy plan regarding COG; and an off-the-job training programme for all participating teachers was planned for the end of the same year. Consequently, we did not have time to develop a framework for our studies before conducting our first interviews. The aim for the first interviews was therefore to orient with the interviewed teachers on the topics that were relevant, and then deepen these topics and relate them to existing, relevant theory on which we could build. Teachers raised many interesting topics, and consequently, we developed a consistent and coherent theory of educational change regarding career guidance based on these topics during the timespan of our research trajectory. We feel like this procedure contributed to an integral description of the process of developing career learning environments in education, as successful reform occurs in a thousand small ways during the journey. Future more focused and zoomed-in research on the different discussed aspects is advisable.

Studying long-term processes with a mixed-method attempt

At the start of our research, we handed a questionnaire to all teachers participating in the training programme and collected these again on the same day. The questions concerned their personal motivation and aspirations regarding the project, the existence of their schools' policy and vision of COG, the extent to which team learning occurred, and the extent to which transformational leadership was experienced. After six months, the same questionnaire was distributed among the same teachers again through school coaches, and two years later, an extended version was again distributed via school coaches – hardcopy with a pre-paid envelope included. Our aim with these questionnaires was to measure developments in the aspects of ambitions, vision and policy, collective team learning, experienced leadership, and eventually information on experi-

enced career learning environments in the last measurement. However, we depended on participants of a national project that took multiple years, and keeping them involved in our research appeared problematic. This resulted in a very high non-response during the last measurement; after repeated reminders, 46 teachers eventually returned their questionnaires (of which 26 appeared to be in our interview group), with a non-response of n=192. Many teachers and school coaches that participated in the training programme in 2013 either did not work in the same positions anymore or got too emotionally and/or practically disconnected from COG/SVE and its ambitions to voluntarily answer our questionnaire. This, again, seems to indicate a lack of structurally embedding the outcomes of the project. The results of the different studies are therefore outcomes of qualitative research. We used multiple qualitative research methods for data collecting, e.g., semi-structured interviews with two different groups, participant observation of different meetings, and content analysis of vision and policy documents regarding COG. For future longitudinal research conducted in the context of large-scale innovation, we suggest obliging participation in research during the course of the project. This might seem somewhat strict, but our research showed that voluntary participation in long-term quantitative research is hard to realise, especially when the research group is rather small.

Although the quantitative part of our research was not successfully completed, we did succeed in keeping 47 of the initial 50 teachers involved in our qualitative measurements for three years, as well as the 39 project managers of almost all (34 of the 37) participating schools. Nearly 260 interviews were conducted in total with these participants. The interviews in combination with our three in-depth case studies have given us a detailed perspective as well as a complete overview on the process towards career learning environments stimulated by the project.

Studying dialogues of individuals

Our research showed the importance of formal as well as informal dialogues between teachers and between teachers and their managers regarding changes towards a different learning environment. However, the meetings we observed were formally organised meetings only. We were unable to objectively measure the existence of informally conducted dialogues on COG in our study. We did address the topic of conducted dialogues with colleagues and managers during semi-structured interviews, but these were all self-reported and therefore subjective. In line with Akkerman and Meijer (2011) and Cohen (2010), we suggest that future research focuses on dialogues in studying the way individual teachers deal with educational innovations and their accompanying uncertainties, for example, by teachers keeping track of their informal dialogues on specific topics on a weekly basis and recording formal dialogues between teachers and teachers and their managers. In this way, the role of dialogues in changing the school's culture can be further investigated, and the individual learning processes of teachers during

educational innovation can be further emphasised, as opposed to the organisational perspective of the current research.

Studying the outcomes of the long-term project

Finally, it appears that the outcomes of the five-year-long innovation project did not come to a halt at the end of the formal project and our research project. Project COG/SVE initiated and stimulated many processes within participating schools that were still heavily in development when the project officially ended. We emphasised throughout the research that reculturing takes time, but it takes even more time than we expected. We trust that time, patience, and facilitation will be given to the hard-working project managers, school coaches, and teachers that try to realise strong career learning environments within their schools.

References

Akkerman, S., & Meijer, P. (2011). A dialogical approach to conceptualizing teacher identity. *Teaching and teacher education*, *27*, 308-319.

Akkerman, S., Petter, C., & de Laat, M. (2008). Organising communities-of-practice: Facilitating emergence. *Journal of Workplace Learning, 20*, 383–399.

Allen, J. & Van der Velden, R. (2012). *Skills for the 21st Century: Implications for Education. Essay for the Kenniskamer of the Ministry of Education, Culture and Science.* Maastricht: Researchcentrum voor Onderwijs en Arbeidsmarkt.

Arthur, M., Khapova, S., & Wilderom, C. (2005). Career success in a boundaryless career world. *Journal of Organizational Behavior, 26,* 177–202.

Assen, J., Koops, H., Meijers, F., Otting, H., & Poell, R. (2018). How can a dialogue support teachers' professional identity development? Harmonising multiple teacher I-positions. *Teaching and Teacher Education*, *73*, 130-140.

Assen, J., Meijers, F., Otting, H., & Poell, R. (2016). Explaining discrepancies between teacher beliefs and teacher interventions in a problem-based learning environment: A mixed methods study. *Teaching and Teacher Education*, *60*, 12-23.

Bakkenes, M., Oomen, A., & Meijers, F. (2002). Career development in The Netherlands. In L. Bezanson, & E. O'Reilly (Eds.), *Making waves: Vol. 2. Papers and proceedings of the international symposium 2001 'Connecting career development with public policy'.* (pp. 137–145). Ottawa: Canadian Career Development Foundation.

Beauchamp, C., & Thomas, L. (2009). Understanding teacher identity: An overview of issues in the literature and implications for teacher education. *Cambridge journal of education*, *39*, 175-189.

Beijaard, D., Meijer, P., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and teacher education*, *20*, 107-128.

Beijaard, D., Verloop, N., & Vermunt, J. (2000). Teachers' perceptions of professional identity: An exploratory study from a personal knowledge perspective. *Teaching and teacher education*, *16*, 749-764.

Bimrose, J., & Hearne, L. (2012).Resilience and Career Adaptability: Qualitative Studies of Adult Career Counselling. *Journal of Vocational Behavior, 81*, 338–344.

Blood, P., & Thorsborne, M. (2005, March). *The challenge of culture change: Embedding restorative practice in schools.* Paper presented at the Sixth International Conference on Conferencing, Circles and other Restorative Practices: Building a Global Alliance for Restorative Practices and Family Empowerment, Sydney, Australia. Retrieved from http://www.thorsborne.com.au/conference_papers/Challenge_of_Culture_Change.pdf

Boeije, H. (2010). *Analysis in qualitative research.* London: Sage.

Bolden, R. (2011). Distributed leadership in organizations: A review of theory and research. *International Journal of Management Reviews, 13*, 251–269.

Bouwmans, M., Runhaar, P., Wesselink, R., & Mulder, M. (2017). Fostering teachers' team learning: An interplay between transformational leadership and participative decision-making?. *Teaching and Teacher Education*, *65*, 71-80.

Bouwmans, M., Runhaar, P., Wesselink, R., & Mulder, M. (2018). Leadership ambidexterity: Key to stimulating team learning through team-oriented HRM? An explorative study among teacher teams in VET colleges. *Educational Management Administration & Leadership*. Advance online publication.

Bush, T., & Glover, D. (2014). School leadership models: What do we know?. *School Leadership & Management, 34*, 553– 571.

Campbell, J., Quincy, C., Osserman, J., & Pedersen, O. (2013). Coding in-depth semistructured interviews: Problems of unitization and intercoder reliability and agreement. *Sociological Methods & Research*, *42*, 294-320.

Castelijns, J., Vermeulen, M., & Kools, Q. (2013). Collective learning in primary schools and teacher education institutes. *Journal of Educational Change, 14*, 373–402.

Chiva, R., Alegre, J., & Lapiedra, R. (2007). Measuring organisational learning capability among the workforce. *International Journal of Manpower, 28*, 224–242.

Cohen, J. (2010). Getting recognized: teachers negotiating professional identities as learners through talk. *Teaching and Teacher Education, 26,* 473-481.

Collin, A., & Young, R. (Eds.). (2000). *The future of career*. Cambridge University Press.

Corbin, J., & Strauss, A. (2014). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory.* Thousands Oaks, CA: Sage.

Creswell, J. (2014). *Educational research. Planning, conducting, and evaluating quantitative and qualitative research*. Harlow: Pearson Education.

Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly, 52,* 221–258.

Deci, E., & Ryan, R. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology/Psychologie canadienne*, *49*, 182.

De Vaus, D. (2001). *Research design in social research.* London: SAGE Publications, Ltd.

Den Boer, P., Eimers, A., Eimers, T., Elfering, S., Keppels, E., Van Kuijk, J., … & Tholen, R. (2017). *Evaluatie wet 'Doelmatige Leerwegen mbo', meting 2017* (Evaluation of the Bill 'Effective learning routes in secondary vocational education', measurement 2017). Consortium 2B MBO. KBA Nijmegen, ResearchNed, Nijmegen.

Den Boer, P., & Hoeve, A. (2017). A routine perspective on implementing reflective career conversations in education. *British Journal of Guidance and Counselling, 45,* 178–187.

Elmore, R. (2016). "Getting to scale…" it seemed like a good idea at the time. *Journal of Educational Change*, *17*, 529-537.

Frey, C., & Osborne, M. (2017). The future of employment: how susceptible are jobs to computerisation?. *Technological Forecasting and Social Change*, *114*, 254-280.

Fullan, M. (1994). Coordinating top-down and bottom-up strategies for educational reform. In R. Anson (Ed.), *Systemic reform: Perspectives on personalizing education.* (pp. 7–23). Washington, DC: US Department of Education.

Fullan, M. (2007). *The new meaning of educational change.* New York, NY: Teachers College Press.

Fullan, M. (Ed.). (2009). *The challenge of change: Start school improvement now!*. Thousand Oaks, CA: Corwin Press.

Fullan, M., Cuttress, C., & Kilcher, A. (2009). 8 forces for leaders of change. In M. Fullan (Ed.), *The challenge of change: Start school improvement now!* (pp. 9–20). Thousand Oaks, CA: Corwin Press.

Garavan, T., & McCarthy, A. (2008). Collective learning processes and human resource development. *Advances in developing human resources, 10*, 451–471.

Geijsel, F. (2015, November). *Praktijken en praktijkwijsheden van onderwijsleiders onderwijsleiders* (Practices and practical wisdoms of educational leaders) [Inaugural speech]. Retrieved from http://nso-onderwijsmanagement.nl/images/Rede_Femke_Geijsel.pdf

Geijsel, F., & Meijers, F. (2005). Identity learning: The core process of educational change. *Educational studies*, *31*, 419-430.

Geijsel, F., Meijers, F., & Wardekker, W. (2007). Leading the process of reculturing: Roles and actions of school leaders. *The Australian Educational Researcher, 34*, 135–161.

Geijsel, F., Sleegers, P., Stoel, R., & Krüger, M. (2009). The effect of teacher psychological and school organizational and leadership factors on teachers' professional learning in Dutch schools. *The elementary school journal, 109*, 406–427.

Govaerts, N., & Dochy, F. (2014). Disentangling the role of the supervisor in transfer of training. *Educational Research Review*, *12*, 77-93.

Gronn, P. (2009). Leadership configurations. *Leadership, 5,* 381–394.

Gubbins, C., & MacCurtain, S. (2008). Understanding the dynamics of collective learning: The role of trust and social capital. *Advances in Developing Human Resources*, *10*, 578-599.

Gysbers, N., & Henderson, P. (2005). Designing, implementing, and managing a comprehensive school guidance and counseling program. In C. Sink (Ed.), *Contemporary school counseling: Theory, research, and practice* (pp. 151–188). Boston, MA: Houghton Mifflin.

Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education, 33*, 329–352.

Hallinger,P. & Heck, R. (2010) Collaborative leadership and school improvement: understanding the impact on school capacity and student learning. *School Leadership & Management, 30,* 95-110.

Han, S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of abnormal child psychology, 33*, 665-679.

Harlaar-Oostveen, M., & Meijers, F. (2014). Zijn stagegesprekken in het hbo reflectief en dialogisch? [Are work placement conversations in higher vocational education reflective and dialogical?]. *Tijdschrift voor Hoger Onderwijs*, *32*, 245-256.

Harris, A. (2004). Distributed leadership and school improvement. Leading or misleading?. *Educational Management Administration & Leadership, 32*, 11–24.

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Oxford: Routledge.

Hensel, R. (2010). *The sixth sense in professional development. A study of the role of personality, attitudes and feedback concerning professional development* (PhD thesis). Twente University, Enschede.

Hillage, J., Regan, J., Dickson, J., & McLoughlin, K. (2002*). Employers skill survey 2002.* Research Report 372. Nottingham: DfES.

Hoekstra, A., Brekelmans, M., Beijaard, D., & Korthagen, F. (2009). Experienced teachers' informal learning: Learning activities and changes in behavior and cognition. *Teaching and Teacher Education*, *25*, 663-673.

Hooge, E., Theisens, H., & Waslander, S. (2017). *Studying steering dynamics using Foucault's concept of governmentality.* Paper presented at the AERA Annual Meeting, Knowledge to Action, San Antonio, Texas. Retrieved from https://www.tias.edu/docs/default-source/Kennisartikelen/hoogetheisenswaslander-aera-paper1.pdf

Hooley, T., Watts, A., & Andrews, D. (2015). *Teachers and careers: The role of school teachers in delivering career and employability learning.* Derby: The International Centre for Guidance Studies, University of Derby.

Hooley, T., Watts, A., Sultana, R., & Neary, S. (2013). The 'Blueprint' framework for career management skills: a critical exploration. *British Journal of Guidance & Counselling*, *41*, 117-131.

Hughes, D., Law, B., & Meijers, F. (2017). New school for the old school: Career guidance and counselling in education. *British Journal of Guidance and Counselling, 45,* 133–137.

Hughes, D., Meijers, F., & Kuijpers, M. (2015). Testing times: Careers market policies and practices in England and the Netherlands. *British Journal of Guidance & Counselling, 43*, 183–201.

Hulpia, H., Devos, G., & Van Keer, H. (2011). The relation between school leadership from a distributed perspective and teachers' organizational commitment: Examining the source of the leadership function. *Educational Administration Quarterly, 47*, 728-771.

Jaimovich, N. and Siu, H.E. (2012). *The trend is the cycle: Job polarization and jobless recoveries.* Tech. Rep., NBER Working Paper No. 18334, National Bureau of Economic Research.

Jansen In de Wal, J. (2016). *Secondary school teachers' motivation for professional learning* (PhD thesis). Open Universiteit: Heerlen.

Jarvis, P., & Keeley, E. (2003). From vocational decision making to career building: Blueprint, real games, and school counseling. *Professional School Counseling*, *6*, 244-250.

Kelchtermans, G. (2009). Who I am in how I teach is the message: self-understanding, vulnerability and reflection. *Teachers and Teaching: theory and practice*, *15*, 257-272.

Koeslag-Kreunen, M., Van den Bossche, P., Hoven, M., Van der Klink, M., & Gijselaers, W. (2018). When Leadership Powers Team Learning: A Meta-Analysis. *Small Group Research, 0,* 1-39.

Korthagen, F. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and teacher education*, *20*, 77-97.

Kotter, J., & Cohen, D. (2002). *The heart of change.* Boston: Harvard Business School.

Kuijpers, M., & Meijers, F. (2012). Learning for now or later? Career competencies among students in higher vocational education in the Netherlands. *Studies in Higher Education, 37*, 449–467.

Kuijpers, M., & Meijers, F. (2017). Professionalising Teachers in Career Dialogue: Effect Study. *British Journal of Guidance and Counselling, 45*, 83–96.

Kuijpers, M., Meijers, F., & Gundy, C. (2011). The relationship between learning environment and career competencies of students in vocational education. *Journal of Vocational Behavior, 78*, 21–30.

Kuijpers, M., Schyns, B., & Scheerens, J. (2006). Career competencies for career success. *The Career Development Quarterly*, *55*, 168-178.

Kuijpers, M., & Scheerens, J. (2006). Career competencies for the modern career. *Journal of career development*, *32*, 303-319.

Lafer, G. (2004). What is 'skill'? Training for discipline in the low-wage labour market. In C. Warhurst, I. Grugulis, & E. Keep (Eds.), *The skills that matter* (pp. 112–129). Basingstoke: Palgrave Macmillan.

Landis, J., & Koch, G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159–164.

Law, B., Meijers, F. & Wijers, G. (2002) New perspectives on career and identity in the contemporary world. *British Journal of Guidance and Counselling, 30,* 431-449.

Leech, N., & Onwuegbuzie, A. (2011). Beyond constant comparison qualitative data analysis: Using NVivo. *School Psychology Quarterly, 26,* 70-84.

Lengelle, R., & Meijers, F. (2014). Narrative identity: Writing the self in career learning. *British Journal of Guidance & Counselling*, *42*, 52-72.

Lengelle, R., Meijers, F. & Van der Heijden, B. (2017). The foundations of career resilience. In K. Maree (ed.), *Psychology of career adaptability, employability and resilience* (pp. 29-47). New York: Springer.

Lieberman, A., & Pointer Mace, D. (2008). Teacher learning: The key to educational reform. *Journal of Teacher Education, 59*, 226–234.

Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry.* Newbury Park, CA: Sage Publications.

Lodders, N. (2013). *Teachers learning and innovating together. Exploring collective learning and its relationship to individual learning, transformational leadership and team performance in higher vocational education* (PhD thesis). Twente University, Enschede.

Lodders, N., & Meijers, F. (2017). Collective learning, transformational leadership and new forms of careers guidance in universities. *British Journal of Guidance & Counselling*, *45*, 532-546.

Lombard, M., Snyder-Duch, J., & Campanella Bracken, C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human Communication Research, 28*, 587–604.

Maree, J. (2016). Career Construction Counseling With a Mid-Career Black Man. *The Career Development Quarterly*, *64*, 20-34.

MBO Diensten. (2010). *Stimuleringsplan Loopbaan Oriëntatie Begeleiding MBO* [Stimulating plan Career Orientation Guidance SVE]. Woerden: MBO Diensten.

MBO Diensten. (2012). *Projectaanvraag: Doorstart Stimuleringsproject LOB in het MBO* [Project Proposal: Restart Developmental Project COG in SVE]. Woerden: MBO Diensten.

MBO Raad (2018). *Dutch VET.* Retrieved from http://www.mboraad.nl/english

Meijers, F. (2001). The effects of the marketisation of career guidance services in The Netherlands. *International Journal for the Advancement of Counselling, 23,* 131–149.

Meijers, F., & Kuijpers, M. (2014). Career learning and career learning environment in Dutch higher education. *Journal of Applied Research in Higher Education, 6*, 295–313.

Meijers, F. & Kuijpers, M. (2015). *Integreren van leren in school en praktijk. Een studie naar 'werkzame bestanddelen'. Onderzoeksverslag.* OOM, A&O.

Meijers, F., Kuijpers, M., & Bakker, J. (2006). *Over leerloopbanen en loopbaanleren. Loopbaancompetenties in het (v)mbo* [About learning careers and career learning. Career competencies in vocational education]. Driebergen: Het Platform BeroepsOnderwijs.

Meijers, F., Kuijpers, M., & Gundy, C. (2013). The relation between career competencies, career identity, motivation and quality of choice. *International Journal for Educational and Vocational Guidance, 13*, 47–66.

Meijers, F., & Lengelle, R. (2012). Narratives at work: The development of career identity. *British Journal of Guidance & Counselling*, *40*, 157-176.

Meijers, F., & Lengelle, R. (2016). Reflective career dialogues. *South African Journal of Higher Education*, *30*, 21-35.

Meijers, F., Vogels, M., Kronenberg, N., & Den Boer, P. (2015). *Loopbaanreflectie en docenten: een paar apart* [Career reflection and teachers: a typical couple]. Woerden: MBO Diensten.

Miles, M., Huberman, A., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook.* Thousand Oaks, CA: Sage.

Mittendorff, K. (2010). *Career conversations in senior secondary vocational education* (PhD thesis). Eindhoven University of Technology, Eindhoven.

Mittendorff, K., Den Brok, P., & Beijaard, D. (2010). Career conversations in vocational schools. *British Journal of Guidance & Counselling*, *38*, 143-165.

Mittendorff, K., Jochems, W., Meijers, F., & den Brok, P. (2008). Differences and similarities in the use of the portfolio and personal development plan for career guidance in various vocational schools in The Netherlands. *Journal of Vocational Education and Training*, *60*, 75-91.

Mortelmans, D. (2011). *Kwalitatieve analyse met Nvivo* [Qualitative analysis with Nvivo]. Leuven: Acco.

Nelson, R., & Winter, S. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Belknap Press of Harvard University Press.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.

O'Connor, K. (2008). "You choose to care": Teachers, emotions and professional identity. *Teaching and teacher education*, *24*, 117-126.

Onstenk, J. & Westerhuis, A. (2017). *Responsieve onderwijsinstellingen in het* mbo [Responsive education institutes in vocational education]. Retrieved from ScienceGuide, https://www.scienceguide.nl/2017/04/het-mbo-is-altijd-al-responsief-geweest/

Oomen, A. (2010). *Ouders en de loopbaan van hun kind* [Parents and the career of their child]. Utrecht: APS.

Oomen, A., Van den Dungen, M., Pijls, T., & Egelie, J. (2012). *Career development in the Netherlands: State of play*. 's- Hertogenbosch: Euroguidance Netherlands.

Oude Groote Beverborg, A., Sleegers, P., & Van Veen, K. (2015). Promoting VET teachers' individual and social learning activities: The empowering and purposeful role of transformational leadership, interdependence, and self-efficacy. *Empirical Research in Vocational Education and Training, 7*, 1–20.

Pajares, M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of educational research*, *62*, 307-332.

Payne, J. (2000). The unbearable lightness of skill: The changing meaning of skill in UK policy discourses and some implications for education and training. *Journal of Education Policy, 15*, 353–369.

Peterson, M., & Spencer, M. (1991). Understanding academic culture and climate. In M. Peterson (Ed.), *ASHE reader on organization and governance* (pp. 140–155). Needham Heights, MA: Simon & Schuster.

Poulis, K., Poulis, E., & Plakoyiannaki, E. (2013). The role of context in case study selection: An international business perspective. *International Business Review, 22,* 304–314.

Pryor, R., & Bright, J. (2011). *The chaos theory of careers*. New York, NY: Routledge.

Razzak, F. & Lensen, J. (2016). *JOB-monitor 2016.* Nijmegen: ResearchNed.

Runhaar, P., Sanders, K., & Yang, H. (2010). Stimulating teachers' reflection and feedback asking: An interplay of self-efficacy, learning goal orientation, and transformational leadership. *Teaching and Teacher Education, 26*, 1154–1161.

Savickas, M. (2012). Life design: A paradigm for career intervention in the 21st century. *Journal of Counseling & Development*, *90*, 13-19.

Savickas, M., Nota, L., Rossier, J., Dauwalder, J., Duarte, M., Guichard, J., ... & Van Vianen, A. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of vocational behavior*, *75*, 239-250.

Schellhammer, B. (2018). Dialogical self as a prerequisite for intercultural adult education. *Journal of Constructivist Psychology*, *31*, 6-21.

Schröder-De Boer, P., & Havinga-Heijs, D. (2017). Actieonderzoek bij een veranderproces van studieloopbaan-gesprekken [Action research during a changing process of study career dialogues]. In F. Meijers & K. Mittendorff (Eds.), *Zelfreflectie in het hoger onderwijs* (pp. 51-66). Apeldoorn: Garant.

Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *NAWA Journal of Language and Communication, 2*, 146–154.

Seawright, J., & Gerring, J. (2008). Case selection techniques in case study research: A menu of qualitative and quantitative options. *Political Research Quarterly, 61,* 294–308.

Smith, E., & Comyn, P. (2004). The development of employability skills in novice workers through employment. *Generic skills in Vocational Education and Training: Research Readings*, 95–108. Retrieved from http://files.eric.ed.gov/fulltext/ ED493988.pdf

Smith, B., & Sparkes, A. (2006). Narrative inquiry in psychology: Exploring the tensions within. *Qualitative research in psychology*, *3*, 169-192.

Spillane, J., Harris, A., Jones, M., & Mertz, K. (2015). Opportunities and challenges for taking a distributed perspective: Novice school principals' emerging sense of their new position. *British Educational Research Journal, 41,* 1068–1085.

Stake, R. (2005). Qualitative Case Studies. In N. Denzin & Y. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (pp. 433–466). Thousand Oaks, CA: Sage.

Sultana, R. (2004). *Guidance policies in the knowledge economy. Trends, challenges and responses across Europe. A Cedefop synthesis report* (Cedefop Panorama Series No. 85). Luxembourg: Office for Official Publications of the European Commission.

Taylor, J., & Savickas, S. (2016). Narrative career counseling: My career story and pictorial narratives. *Journal of Vocational Behavior*, *97*, 68-77.

Ten Bruggencate, G. (2009). *Maken schoolleiders het verschil? Onderzoek naar de invloed van schoolleiders op de resultaten* [Do school leaders make a difference? Research on the influence of school leaders on school performance] (PhD thesis). Twente University, Enschede.

Theisens, H., Hooge, E., & Waslander, S. (2017). *How exceptional are the Dutch? Identifying general and country specific characteristics of governance in multi-layered polycentric education systems.* Paper presented at the AERA Annual Meeting, Knowledge to Action, San Antonio, Texas. Retrieved from https://www.tias.edu/docs/default-source/Kennisartikelen/theisenshoogewaslander-aera-paper2.pdf

Thijs, A., Fisser, P., & Van der Hoeven, M. (2014). *21e eeuwse vaardigheden in het curriculum van het funderend onderwijs: een conceptueel kader* [21st century skills in the curriculum of basic education: a conceptual framework]. Enschede: SLO.

Thoonen, E., Sleegers, P., Oort, F., & Peetsma, T. (2012). Building school-wide capacity for improvement: The role of leadership, school organizational conditions, and teacher factors. *School Effectiveness and School Improvement, 23*, 441–460.

Thoonen, E., Sleegers, P., Oort, F., Peetsma, T., & Geijsel, F. (2011). How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices*. Educational Administration Quarterly, 47*, 496–536.

Trede, F., Macklin, R., & Bridges, D. (2012). Professional identity development: a review of the higher education literature. *Studies in Higher Education*, *37*, 365-384.

Van der Klink, M., & Nieuwenhuis, L. (2017). *Op zoek naar constructief conflict* [Looking for Constructive Conflict]. Retrieved from ScienceGuide, http://www.scienceguide.nl/201703/op-zoek-naar-constructief-conflict.aspx

Van Eekelen, I., Vermunt, J., & Boshuizen, H. (2006). Exploring teachers' will to learn. *Teaching and teacher education*, *22*, 408-423.

Van Lankveld, T., Schoonenboom, J., Kusurkar, R. A., Volman, M., Beishuizen, J., & Croiset, G. (2017). Integrating the teaching role into one's identity: a qualitative study of beginning undergraduate medical teachers. *Advances in Health Sciences Education*, *22*, 601-622.

Van Loon, R., & Van Dijk, G. (2015). Dialogical leadership: Dialogue as condition zero. *Journal of Leadership, Accountability and Ethics*, *12*, 62-75.

Van Woerkom, M. (2003). *Critical reflection at work: Bridging individual and organisational learning* (PhD thesis). Twente University, Enschede.

Vloet, K. (2015). *Professionele identiteitsontwikkeling van leraren als dialogisch proces. Een narratieve studie in een masteropleiding in speciale onderwijszorg en loopbaanbegeleiding van leerlingen* [Teachers' professional identity development as dialogical process. A narrative study in a Master course in Special Educational Needs and career guidance of students] (PhD thesis). Universiteit voor Humanistiek, Utrecht.

Walma van der Molen, J. & Kirschner, P. (2017). *Met de juiste vaardigheden de arbeidsmarkt op* [Entering the labour market with the right skills]. White paper Nederlandse Vereniging voor Psychotechniek (NSvP).

Waslander, S. (2017). *Sturingsdynamiek in het middelbaar beroepsonderwijs* [Steering dynamics in vocational education]. Tilburg: TIAS School for Business and Society, Tilburg University.

Waslander, S., Theisens, H., Hooge, E., &. Pater, C. (2017). *Steering dynamics and teachers daily practice: steering overload in Dutch secondary school boards.* Paper presented at the AERA Annual Meeting, Knowledge to Action, San Antonio, Texas. Retrieved from https://www.tias.edu/docs/default-source/Kennisartikelen/waslandertheisenshoogepater-aera-paper4.pdf

Weggeman, M. (2015). *Essenties van leidinggeven aan professionals* [Essences of managing professionals]. Schiedam: Scriptum.

Wester, F., & Peters, V. (2004). *Kwalitatieve analyse: uitgangspunten en procedures* [Qualitative analysis: assumptions and procedures]. Bussum: Coutinho.

Winters, A. (2012). *Career learning in vocational education: Guiding conversations for career development* (PhD thesis). Katholieke Universiteit Leuven, Leuven.

Winters, A., Meijers, F., Harlaar, M., Strik, A., Baert, H., & Kuijpers, M. (2013). The narrative quality of career conversations in vocational education. *Journal of Constructivist Psychology*, *26*, 115-126.

Winters, A., Meijers, F., Kuijpers, M., & Baert, H. (2009). What are vocational training conversations about? Analysis of vocational training conversations in Dutch vocational education from a career learning perspective. *Journal of Vocational Education & Training, 61*, 247–266.

Yorks, L. (2005). *Strategic human resource development*. Mason, OH: Thomson South Western.

Nederlandse samenvatting

Om de studenten van vandaag voor te bereiden op de flexibele en onvoorspelbare loopbanen die voor hen liggen, is een andere leeromgeving nodig dan een die geschikt is voor traditionele, relatief stabiele loopbanen. In het Nederlandse middelbare beroepsonderwijs (mbo) wordt aan deze noodzaak voldaan door middel van het door de overheid geïnitieerde innovatieproject 'Loopbaanoriëntatie en -begeleiding in het middelbaar beroepsonderwijs' (LOB in het mbo). Het project beoogt zogenaamde krachtige loopbaangerichte leeromgevingen te introduceren, die de ontwikkeling van reflectieve, onderzoekende en flexibele attitudes, ofwel de ontwikkeling van loopbaancompetenties, stimuleren. De realisatie van een dergelijke leeromgeving vraagt om een onderwijsvernieuwing die rekening houdt met duurzame veranderingen in cultuur en structuur, en zodoende in de overtuigingen en het gedrag van docenten.

Om de loopbaangerichte leeromgeving in het onderwijs te bevorderen namen 37 mbo-instellingen deel aan 'LOB in het mbo'. Het project omvatte een trainingsprogramma op zowel een centrale trainingslocatie als in school. Na de training op locatie namen de docenten deel aan trainingssessies op school met hun schoolcoaches: docenten die hadden deelgenomen aan een uitgebreider trainingsprogramma om hun eigen collega's te leren coachen. Verder kregen scholen professionele begeleiding gericht op het formuleren van een visie en beleid ten aanzien van loopbaanontwikkeling. Door middel van dit project werden middelbare beroepsopleidingen aangemoedigd om de focus binnen hun onderwijs van diplomagericht naar (meer) loopbaangericht te verleggen door een loopbaangerichte leeromgeving voor hun studenten te ontwikkelen.

Literatuur over onderwijsvernieuwing suggereert dat collectief leren van docenten en transformationeel leiderschap voorwaarden zijn voor cultuurverandering (Bouwmans, Runhaar, Wesselink, & Mulder, 2017; Castelijns, Vermeulen & Kools, 2013; Fullan, 2007; Geijsel, Meijers & Wardekker, 2007; Geijsel, Sleegers, Stoel & Krüger, 2009; Lodders, 2013; Lodders & Meijers, 2017; Thoonen, Sleegers, Oort & Peetsma, 2012). Het doel van dit onderzoek is inzicht te krijgen in de rol van collectief leren, transformationeel leiderschap en beleidsontwikkeling in scholen bij de creatie van loopbaangerichte leeromgevingen. We beogen een duidelijk beeld te krijgen van stimulerende factoren en obstakels op het niveau van de betrokken docenten en projectleiders op de scholen. De algemene onderzoeksvraag is:

Op welke wijze beïnvloedt het nationale innovatieproject 'LOB in het mbo' culturele en structurele veranderingen in de werkomgeving van docenten en zodoende in de loopbaangerichte leeromgeving van studenten?

Het onderzoeksproject was longitudinaal van aard, bedoeld om theoretisch en praktisch inzicht te krijgen in de lange termijn invloed van het project 'LOB in het mbo' op de deelnemende onderwijsinstellingen. Zie Tabel 1 voor een overzicht van onze semigestructureerde interviewmetingen. Daarnaast hebben we drie gevalsstudies uitgevoerd om inzicht te krijgen in het proces van beleidsvorming en -implementatie. Deze drie

scholen werden strategisch geselecteerd en hier werden data verzameld van maart 2015 tot juni 2016.

Tabel 1 Tijdspad metingen en respondenten

	Meting 0 sept–dec 2013	Meting 1 okt 2013-jan 2014	Meting 2 april–juni 2014	Meting 3 april–mei 2015	Meting 4 april–juni 2016
Docenten selectie vragenlijst	N[1]=238				
Docenteninterviews		n=50	n=48	n=45	n=47
Projectleider-interviews			n=38		N=39

[1]N = de totale onderzoeksgroep, n = een subgroep van de totale onderzoeksgroep

In deze samenvatting worden eerst de resultaten gepresenteerd van vier studies die tijdens het innovatieproject zijn uitgevoerd. Studie 1 richtte zich op de directe ontwikkelingen in de werkomgeving van de docenten onmiddellijk na de start van de training. Studie 2 gaf een beschrijving van hoe docenten en projectleiders van de deelnemende scholen de ontwikkelingen met betrekking tot loopbaanoriëntatie en -begeleiding (LOB) in hun eigen werkomgeving en de leeromgeving van hun studenten zagen tijdens de eerste twee metingen. In studie 3 is aan de hand van drie gevalsstudies een beeld geschetst van het proces van beleidsvorming en -implementatie in drie mbo-instellingen die aan het project deelnamen. Tot slot presenteerde studie 4 de structurele en culturele veranderingen zoals die door de docenten werden waargenomen, met een focus op de veranderingen in perceptie van hun eigen rol als docent. Na het samenvatten van de vier studies bespreken we de belangrijkste conclusies van ons longitudinale onderzoek en de praktische aanbevelingen die uit onze conclusies voortkomen.

De resultaten van de vier studies

Om de hoofdvraag te beantwoorden zijn er vier studies uitgevoerd met meerdere onderzoeksvragen die gezamenlijk inzicht geven in het proces richting loopbaangerichte leeromgevingen.

Studie 1
De eerste meting direct na de training buiten de werkplek gaf inzicht in de eerste ontwikkelingen in de werkomgeving van de docenten. Het doel was om inzicht te krijgen in hoeverre het project 'LOB in het mbo' erin slaagde een proces op gang te brengen richting een loopbaangerichte leeromgeving, en in hoeverre het project het collectief leren van de docenten en transformationeel leiderschap stimuleerden. Uit de interviews bleek dat de meeste docenten sinds het begin van de training meer vertrouwen hadden in hun vaardigheden om een loopbaandialoog met hun studenten aan te gaan, ook al

wensten ze meer training voor zichzelf en hun collega's. Op het niveau van de loopbaandialogen tussen docenten en studenten was een proces richting een loopbaangerichte leeromgeving in gang gezet. De ontwikkeling van een praktijk- en vraaggerichte leeromgeving voor studenten was voor de docenten echter niet merkbaar. Een belangrijke pijler van het project, het ontwikkelen van een hernieuwde visie en hernieuwd beleid ten aanzien van loopbaanbegeleiding, werd door de docenten niet genoemd. Het bleek dat de meeste docenten niet betrokken waren bij, en bovendien niet op de hoogte waren van de ontwikkeling van een dergelijk schoolbeleid.

Voor veel docenten was het onduidelijk waarom hun managers hen vroegen om deel te nemen aan het trainingsprogramma. Dit gebrek aan gezamenlijke visieontwikkeling en individuele ondersteuning in de vorm van uitleg of gesprekken over de deelname aan het project duidde op de afwezigheid van collectief leren en transformationeel leiderschap in de scholen. Na de eerste meting concludeerden we dan ook dat de veronderstelde voorwaarden voor onderwijsvernieuwing grotendeels afwezig waren, maar dat desondanks op het niveau van de docenten het dialogische aspect van de leeromgeving meer prioriteit begon te krijgen.

Studie 2
Deze studie beschreef hoe docenten en projectleiders van de deelnemende scholen de ontwikkelingen tussen de eerste twee metingen in hun eigen werkomgeving en de leeromgeving van hun studenten ervoeren. De interviews lieten zien dat de docenten die deelnamen aan het project zich richtten op het verder verbeteren van het dialogische aspect van de leeromgeving. In de georganiseerde werkplekfase van het trainingsprogramma lag de nadruk binnen de docententeams op het elkaar feedback geven over de gevoerde en met camera opgenomen loopbaandialogen. Tevens werd LOB-training op school voor andere docenten georganiseerd.

In de periode tussen de eerste en de tweede meting leek er meer duidelijkheid te zijn gekomen over de visie van de scholen op LOB en de doelstellingen van het project. Hoewel deze visie duidelijk was werd deze niet door alle docenten ondersteund. Docententeams en individuele docenten bleken niet betrokken bij het ontwikkelen van visie en ambities met betrekking tot loopbaanbegeleiding. Daarnaast hadden de docenten verschillende perspectieven op de rol die zij en hun scholen zouden moeten spelen in de ontwikkeling van de loopbaancompetenties van de studenten. Het gebrek aan een gedeelde en breed gedragen visie op loopbaanoriëntatie en -begeleiding belette de docenten en projectleiders verder collectief te leren. De projectleiders wensten meer betrokkenheid en ondersteuning van het middenmanagement (teamleiders) en het hoger management (directeuren, College van Bestuur).

Studie 3
De derde studie betrof het beleidsvormingsproces en de implementatie in drie mbo-instellingen die deelnamen aan het project 'LOB in het mbo', om de rol van schoolbeleid te onderzoeken bij het realiseren van een loopbaangerichte leeromgeving. We onder-

zochten aan de hand van drie gevalsstudies in welke mate een onderscheid zichtbaar was tussen strategisch beleid en tactisch beleid, en in welke mate en met welk resultaat dialogen werden gevoerd tussen en binnen verschillende niveaus.

Uit de gevalsstudies bleek dat dialogen over beleid tussen managers en docenten, maar ook tussen docenten onderling, veranderingen in de leeromgeving van studenten in het beroepsonderwijs stimuleerden. Zonder beleid leken docenten en middenmanagement te weinig richting te ervaren om een collectief leerproces te starten. De school die er in slaagde om een ingebed strategisch beleid te ontwikkelen liet een continue dialoog zien tussen de verschillende niveaus van de organisatie over dit beleid. Daarnaast heeft deze school gewerkt aan de beleidsvorming en -implementatie door middel van structurele communicatie tussen beleidsmakers, docenten en (hogere) managers over het implementeren van LOB via een permanente overlegstructuur.

Studie 4

De vierde studie richtte zich op de veranderingen in de leeromgeving in scholen en de veranderde rolpercepties van de docenten op basis van interviews met docenten en projectleiders op vier verschillende meetmomenten. Tevens kwam via de interviews naar voren welke factoren hebben bijgedragen aan de verandering van de opvattingen over hun rol als docent, die een wezenlijk aspect van de schoolcultuur vormen.

De resultaten lieten zien dat docenten gedurende de vierde meting aanzienlijk meer loopbaangerichte gesprekken zeiden te voeren met hun studenten dan tijdens de start van het project. Docenten die een uitgebreide training tot schoolcoach kregen gaven tijdens de vier meetmomenten zelf aan inhoudelijk meer loopbaangerichte begeleiding te verzorgen dan de 'gewone' docenten aangaven. Daarnaast waren hun loopbaangesprekken tijdens alle meetmomenten volgens henzelf gemiddeld meer begeleidend dan sturend, en meer dialogisch dan monologisch.

Docenten en projectleiders noemden in de reflectieve interviews tijdens het laatste meetmoment vergelijkbare organisatorische factoren die bijgedragen hadden aan de veranderingen in de rolperceptie van docenten. Het samen leren van docententeams in de vorm van LOB-workshops en training binnen de school stimuleerden hen informatie te verzamelen over LOB en stelden hen in gelegenheid om loopbaanbegeleidingsvaardigheden te oefenen. Een geformuleerd strategisch beleid en gegeven ruimte voor ontwikkeling van tactisch beleid door docententeams zorgden tegelijkertijd voor duidelijkheid en autonomie. Docenten waren van mening dat teamleiders en hogere managers verantwoordelijk zijn voor prioritering, inspiratie en het beantwoorden van vragen over LOB. In een aantal gevallen waren deze verantwoordelijkheden echter, met succes, overgenomen door actieve schoolcoaches of leden van een eventuele LOB-projectgroep. Ook dat bleek succesvol te zijn. Projectleiders benadrukten het belang van betrokkenheid van teamleiders en hogere managers door ondersteuning van de docententeams en individuele docenten. Deze betrokkenheid bleek in veel gevallen afwezig. Waar wel gesprekken tussen docenten en teamleiders of managers plaatsvon-

den werden deze door docenten als richtinggevend, inspirerend en verduidelijkend ervaren.

De bijdrage van de organisatorische factoren op de verandering van rolperceptie van docenten was op individueel en niet op groepsniveau verschillend. We vonden verschillende veranderpatronen bij individuele docenten en schoolcoaches binnen dezelfde scholen, of zelfs dezelfde docententeams, ondanks gelijke organisatorische omstandigheden binnen scholen en docententeams.

Belangrijkste conclusies

Culturele en structurele veranderingen in de schoolomgeving

Uit de resultaten van onze studies is gebleken dat de rolperceptie van docenten bij een meerderheid van de docenten is veranderd gedurende het driejarige innovatieproject. In het derde jaar waren docenten meer loopbaangeoriënteerd in hun communicatie met studenten en zetten ze zich meer in voor het voeren van loopbaandialogen met hun studenten dan vóór het begin van 'LOB in het mbo', aldus de docenten en de projectleiders. De individuele veranderpatronen met betrekking tot de rolperceptie per docent verschilden binnen dezelfde school. De veranderde begeleiding van de studenten was onvoldoende consequent en duurzaam geborgd in de structuur van de scholen en ondersteuning van het management ontbrak in veel gevallen. Deze bevindingen komen overeen met de bevindingen van een recent onderzoeksproject naar sturingsdynamiek in Nederlandse scholen (Waslander, 2017), waaruit bleek dat onderwerpen met hoge prioriteit van de leidinggevende meer door docententeams worden aangepakt dan de onderwerpen zonder prioriteit. Bij de schoolcoaches (docenten die een uitgebreidere opleiding hadden ontvangen voor LOB en daarna trainingen organiseerden voor hun eigen collega's) werden substantiële ontwikkelingen in rolperceptie waargenomen dan bij 'gewone' docenten.

Factoren en processen van invloed op innovatie

Onze eerste en tweede meting lieten zien dat het innovatieproces van de ontwikkeling van loopbaangerichte leeromgevingen moeilijk van start ging, aangezien deelnemende docenten meestal niet betrokken waren bij de ontwikkeling van visie en beleid op de loopbaangerichte leeromgeving van hun studenten. De visie- en beleidsontwikkeling vond wel parallel plaats aan de formele trainingsdagen, maar werd afzonderlijk uitgevoerd. Van de meeste docenten werd zodoende verwacht dat zij nieuw gedrag aanleerden en oefenden, zonder kennis van een nieuwe, vastgestelde visie ten aanzien van loopbaanbegeleiding. De visie en het beleid op LOB was niet ontwikkeld met, gedeeld met, of bekend bij alle docenten. Dit leidde tot een gebrek aan eigenaarschap met betrekking tot de uitvoering van LOB.

Dit gebrek aan betrokkenheid van docenten leek verband te houden met een gebrek aan grondig en volledig uitgevoerde collectieve leerprocessen op de meeste scholen. Collectief leren zou middels een leercyclus van meerdere fasen gemeenschappelijke leer- en/of werkresultaten nastreven, om gemeenschappelijke gedeelde ambities te verwezenlijken (Castelijns et al., 2013; Lodders, 2013). Onze bevindingen suggereren ook dat voor volledig collectief leren het doorlopen van de volledige cyclus nodig is om tot duurzame veranderingen in het collectieve gedrag van een docententeam te komen. Dit betekent dat het proces van collectief leren niet zou moeten worden benaderd als een verzamelnaam voor 'sociaal leren' of formele of informele professionaliseringsactiviteiten, maar als een implementatiemodel in situaties van verandering, waar elke fase aandacht verdient.

De resultaten lieten zien dat individuele begeleiding tijdens het leerproces, waarbij persoonlijke betekenis wordt gegeven aan ervaringen van individuele leraren, gunstig is voor hun leerproces. Een collectief leerproces gaat immers onvermijdelijk gepaard met individueel leren. De resultaten zijn in lijn met recent onderzoek van Assen, Koops, Meijers, Otting en Poell (2018) en Van Loon en Van Dijk (2015), die vonden dat dialogen met anderen (managers, andere docenten) over ervaringen van docenten bewustmaking stimuleert, en een dialogische aanpak voor veranderprocessen essentieel is voor de ontwikkeling van 'een dieper niveau van bewustzijn en actie' (Van Loon & Van Dijk, 2015, p. 73).

Ons onderzoek toont aan dat het niet productief is wanneer managers pretenderen dat de uitvoering van LOB kan worden gerealiseerd door een uitsluitend 'bottom-up' benadering, en het verder aan docenten overlaat hun collectieve en individuele leren te organiseren zonder duidelijke communicatie over het project als geheel. Een review studie van Govaerts en Dochy (2014) toont eveneens aan dat steun en betrokkenheid van leidinggevenden van essentieel belang is voor de toepassing van kennis en vaardigheden die zijn ontwikkeld tijdens een trainingsprogramma in de werkomgeving. Een andere, meer recente reviewstudie met betrekking tot leiderschap voor teamleren van Koeslag-Kreunen, Van den Bossche, Hoven, Van der Klink en Gijselaers (2018) laat zien dat teamleiderschap 18% van de variantie van teamleergedrag verklaart, met een grotere invloed van persoonsgerichte teamleiders dan taakgerichte teamleiders. Uit onze interviews werd duidelijk dat transformationeel leiderschap een belangrijke voorwaarde is voor verandering. Daarnaast vonden we in de gevalsstudies de effectiviteit van een combinatie van transformationeel leiderschap en instructioneel leiderschap. De effectiviteit van deze combinatie wordt ook aangevoerd in ander recent werk over onderwijsleiderschap (Bush & Glover, 2014; Dag et al., 2016; Geijsel, 2015; Hallinger, 2003).

Aanbevelingen voor de praktijk

Voor de organisatie van een onderwijsinnovatie met betrekking tot de totstandkoming van loopbaangerichte leeromgevingen is het raadzaam om schoolmanagers vanaf het begin te betrekken in de implementatie van het nieuwe beleid. Zij spelen een belangrijke rol in het richting geven van de vernieuwing, door verduidelijking van het innovatieproject en van het strategisch beleid. Daarnaast hebben zij de taak om het collectieve leerproces van de docententeams te begeleiden. Daarbij dient het collectieve leerproces te worden benaderd als een implementatiemodel waarbij alle fasen tijdens de innovatie worden doorlopen. De ontwikkeling van een gedeelde ambitie door het voeren van dialogen over de visie van de school en de individuele visies van docenten is de eerste fase van het collectieve leerproces, en functioneert daarmee als het startpunt voor verandering. Docententeams kunnen in samenspraak met hun leidinggevenden de richting en de ruimte van het veranderproces bepalen. Daarbij is een dialoog tussen managers en docenten raadzaam, bij voorkeur met regelmaat, aangezien een school breed strategisch beleid communicatie tussen verschillende niveaus van de organisatie vereist. Controle en sturing zijn in sommige gevallen te prevaleren boven autonomie en 'bottom-up' strategieën, maar in andere situaties werkt het andersom (Bouwmans, Runhaar, Wesselink, & Mulder, 2018). Het is aan het middenmanagement om de balans tussen controle en autonomie te bepalen die nodig is in verschillende situaties van onderwijsinnovatie, zoals geschikt voor de context van de school en het docententeam. Reflectie en evaluatie kan daarnaast structureel worden georganiseerd door middel van intervisie, supervisie en regelmatige meet-ups.

Het implementeren van een onderwijsinnovatie is een collectieve zaak met betrekking tot teamleren, maar het vereist ondersteuning en begeleiding van ieder individu. Het veranderen van gevestigde rollen is uitdagend, omdat de zekerheden van de onderwijspraktijk op losse schroeven komen te staan. Aanpassing van routines kan gevoelens van onveiligheid en incompetentie veroorzaken, aangezien ontwikkelde en verbeterde vaardigheden en strategieën moeten worden losgelaten. Middels dialogische en individuele steun en begeleiding profiteren niet alleen studenten van dialoog en reflectie, maar door het handhaven van de uitgangspunten van LOB binnen de gehele organisatie kan een dialogische (loopbaan)leeromgeving ook in de werkomgeving van docenten worden gerealiseerd.

Dankwoord

Hoe solistisch een promotietraject ook kan zijn, het is evengoed een sociaal proces. Dat er nieuwe professionele kennis en vaardigheden moeten worden aangeleerd is evident en niet gemakkelijk, maar de emotionele kant bleek voor mij de grootste uitdaging. In dialoog leert men en ik heb hiervoor mensen nodig gehad, de juiste mensen, die ik heel graag wil bedanken voor hun directe of indirecte bijdragen aan dit proefschrift.

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Curriculum Vitae with publications

Aniek Draaisma was born on March 10th 1988 in Delft, the Netherlands. She finished pre-university education (vwo) in 2006 at 'het Stanislascollege' in Delft. In 2010 she received her Bachelor's degree in Interdisciplinary Social Sciences at Utrecht University, and in 2011 her Master's degree in Youth Studies. After working at the policy department of a governmental youth care office, she started working at a research institute focussing on youth at risk. During a research project she undertook there she developed great interest in individual guidance within vocational education, and specifically the role teachers fulfilled in guiding individual students. Shortly thereafter, she applied for a Ph.D. position at the Open University of the Netherlands for a research trajectory focusing on in-school career guidance, the results of which are presented in this dissertation.

Articles in peer-reviewed journals

Draaisma, A., Meijers, F. & Kuijpers, M. (2017). Towards a strong career learning environment: Results from a Dutch longitudinal study. *British Journal of Guidance and Counselling, 45*, 165-177.

Draaisma, A., Meijers, F., & Kuijpers, M. (2018). The development of strong career learning environments: The project 'Career Orientation and Guidance' in Dutch vocational education. *Journal of Vocational Education and Training, 70*, 27-46.

Draaisma, A., Meijers, F. & Kuijpers, M. (2018). Process description of a dialogue-focused intervention to improve career guidance policy in three schools. *Australian Journal of Career Development*, *27*, 40-53.

Other publications related to this thesis

Draaisma, A., & Mittendorff, K. (2017). Betekenisvol reflecteren op verschillende niveaus. In F. Meijers & K. Mittendorff (Eds.) *Zelfreflectie in het hoger onderwijs* (pp. 33-49). Antwerpen/Apeldoorn: Garant.

Draaisma, A. (2018). *LOB in het mbo.* Retrieved from Didactief, https://didactiefonline.nl/artikel/lob-in-het-mbo

Draaisma, A., Meijers, F. & Kuijpers, M. (accepted). Innovating towards career learning environments. Changes in teachers' role perception regarding career guidance. In J. Maree (Ed.) *Innovating career counselling theory, research, and practice. In search of promoting inclusion and sustainable employment for all.* Springer Science & Business Media.

Conference contributions

Draaisma, A. & Kuijpers, M. (2014, November). *Strong career learning environments and career dialogues in secondary vocational education*. Paper presented at EAPRIL. Nicosia, Cyprus.

Draaisma, A., Kuijpers, M. & Meijers, F. (2015, June). *Krachtige loopbaangerichte leeromgevingen en loopbaandialogen in het middelbaar beroepsonderwijs.* Symposium conducted at the Ondewijs Research Dagen 2015, Leiden, The Netherlands.

Draaisma, A., Kuijpers, M. & Meijers, F. (2015, July). *Strong career learning environments in vocational education.* Paper presented at the ECADOC Summer School 2015, Paris, France.

Draaisma, A., Kuijpers, M. & Meijers, F. (2015, September). *Strong career learning environments in vocational education.* Paper presented by M. Kuijpers at the IAEVG Conference, Tsukuba, Japan.

Draaisma, A. & Kuijpers, M. (2016, May). *De creatie van loopbaangerichte leeromgevingen in het beroepsonderwijs.* Paper presented at the Onderwijs Research Dagen 2016, Rotterdam, The Netherlands.

Draaisma, A. & Kuijpers, M. (2016, November). *Towards a strong career learning environment: career learning in Dutch vocational education.* Paper presented at the International Association of Educational and Vocational Guidance, Madrid, Spain.

Draaisma, A., Kuijpers, M. & Meijers, F. (2017, June). *Richting krachtige loopbaangerichte leeromgevingen in het mbo.* Paper presented at the Ondewijs Research Dagen 2017, Antwerpen, Belgium.

Draaisma, A. (2017, June). *Hoe vernieuwend worden de LOB vernieuwingen in het onderwijs vormgegeven?* Workshop at the conference Anders doen denken in het onderwijs, Wageningen, the Netherlands.

Draaisma, A. (2017, October). *Betekenisvol en kwalitatief reflecteren in het onderwijs: kinderspel?* Workshop at the conference Duurzame talentontwikkeling, Den Haag, the Netherlands.

Draaisma, A., Kuijpers, M. & Meijers, F. (2018, May). *Richting krachtige loopbaangerichte leeromgevingen in het mbo.* Paper presented at the Ondewijs Research Dagen 2018, Nijmegen, the Netherlands.