

**HELPFUL BEHAVIORS OF MIDDLE MANAGERS
IN AN AGILE TRANSFORMATION**

An exploratory research

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Executive summary

Purpose and research question: The aim of this research is to advise management of IT about what types of behavior of a middle manager are required for a successful agile roll-out. This was done by exploring the various types of behaviors of middle managers in an agile transformation within a financial institution and the effect of this behavior on employees. The research question was: How can leadership behavior of a middle manager motivate employees to transform towards agile, and what leadership behavior is perceived as helpful in the transformation?

Design/methodology/approach: A largely inductive approach was used to develop a richer theoretical perspective on the role of managers in agile transformations. An exploratory, cross-sectional study was performed to gain insights into how leaders can be helpful in an agile transformation. Although largely inductive, there is also a more deductive element to the study, since the a priori behaviors identified from academic literature were used in the first steps of the data analysis. Individual, semi-structured interviews using the Enhanced Critical Incident Technique were conducted with 8 IT middle managers across all delivery domains of a financial institution and 8 IT engineers of the same department. The data collected was analyzed by making use of template analysis with an a priori, initial and final template of helpful behaviors.

Findings: The results of this research showed that middle managers motivate employees by meeting their needs. It is proposed that employees' needs change during different phases of an agile transformation and that behavior of the middle manager should be adjusted accordingly. The behaviors a middle manager should apply for helping employees to transform to agile are steering, supporting, sounding, change-oriented and collaborative behavior. Also, behavior in which results are evaluated is experienced as helpful.

Implication: Managers play an important role in a transformation. To successfully implement agile, middle managers should take into account not only agile leadership behavior but also steering, supportive and change-oriented behaviors to get to agile. The phase of the implementation an organization is in determines what behavior of the middle manager is deemed helpful.

Key words: transformation, agile, middle management, types of helpful behaviors, leadership

1. Introduction

1.1 Background

1.1.1 *Need for change*

The rise of digital technology has dramatically changed the landscape in the financial services sector (Hugener, Mavros, & Courbe, 2017). To illustrate, by offering products and services through digital channels, financial institutions reach more customers with higher quality and lower costs. But if customers switch their banking to digital companies at the same rate as they adopted new technology in the past, banks will need to rethink their digital strategy (Ghose et al., 2016). Banks cannot afford to wait any longer to extract the potential of digital technology to industrialize their operations (Dietz et al., 2017). As early as 1994, Bill Gates stated that in the future, banking would be needed, but banks themselves would not (Filkorn, 2016). Research of the big four consultancy companies argue that banks need to change now. This is also illustrated by the Global Banking annual review report of 2017 by McKinsey: “a full-scale digital transformation is essential, not only for the economic benefits, but also because it will earn banks the right to participate in the next phase of digital banking” (Dietz et al., 2017). Despite the threat of new digital entrants, traditional banks lag behind in digital innovation (Hugener et al., 2017). At the same time, since 2011 the number of start-ups in fintech (technology-based companies that often compete against traditional financial services firms) has risen by more than 50 percent (Dietz et al., 2017; Ghose et al., 2016; Hugener et al., 2017). To meet the demands of the new marketplace - to offer digital products and services, with a much faster speed-to-market, while lowering costs and continuing to support legacy systems - the IT function of banks needs to be flexible, efficient, and responsive (Hugener et al., 2017).

1.1.2 *From waterfall to agile methods*

The IT of traditional financial institutions is characterized by legacy systems that use traditional waterfall methods to deliver IT products despite inconsistent delivery results (Hotle & Wilson, 2016). Under the waterfall approach, projects go through discrete phases, subsequently gathering business requirements, executing process analysis followed by software design and programming (Fjeldstad, Lundqvist, & Braad Olesen, 2016). According to Gartner's IT Key Metrics Data, waterfall methods were employed on 56% of development efforts in 2015. Their research showed that only 60% of projects were completed on time and 71% finished within budget. At first glance, this may not seem particularly bad. However, nine-month planned projects that actually take a year

to complete can be very disruptive to an organization's resource and demand management processes (Hotle & Wilson, 2016). Not even mentioning the pressure of regulators in the financial industry who demand solutions to be in place as soon as new regulations like PSD2 are implemented.

The need for flexibility to meet customers' and regulators' demand with an increased time-to-market is also known as agility. The literal meaning of agility is the ability to move quickly and easily (Oxford Dictionary, 2010). In a business context, agility is defined as a business-wide capability of an organization to respond rapidly to changes in demand both in terms of volume and variety (Browaeys & Fisser, 2012). This capability embraces organizational structures, information systems, logistics processes and in particular, mindsets (Christopher, 1999). Managing agile is the approach to reach agility and realizing the required adaptivity. Being agile means being able to adapt to changing demand with a need for speed while minimalizing the time-to-market (Appelo, 2011; Hoogveld, 2017; Van Solingen & Van Lanen, 2013). In February 2001, seventeen independent-minded software practitioners acknowledged the demand for agility and responsiveness in IT and found consensus about four main values captured in the Agile Manifesto. The Agile Manifesto states that "We are uncovering better ways of developing software by doing it and helping others do it. Through this work, we have come to value: *Individuals and interactions over processes and tools; working software over comprehensive documentation; customer collaboration over contract negotiation; and responding to change over following a plan.* That is, while there is value in the items on the right, we value the items on the left more" (Alliance Agile, 2001). The Agile Manifesto is thus an approach based on values to reach agility in software development. Agile methods are fixed-time with fixed-resources that plan delivery based on function decomposition rather than time sequence. Agile projects do not require a clear set of requirements at the beginning and do not follow subsequent phases, yet it is an iterative process where the feedback from the customer is used to determine the best solution during the project (Bonner, 2010).

1.1.3 Management in agile

In managing agile methods, the role of the manager is to enable those doing the work to contribute their full talents and capabilities to generate value for customers and trust those doing the work to figure out how to do the work in the right way (Appelo, 2011; Hoogveld, 2017). As Denning (2015) argues, "Agile is neither top-down nor bottom-up: it is outside-in. The focus is on delivering value to customers. The customer decides, not the manager" (p. 2). Denning (2015) continues by arguing that in contrast to agile, the role of the manager in traditional management is to identify and steer on what needs to be done. In this way of working, employees follow directions and management knows best. In organizations where there is a fundamental belief in the effectiveness of the top-

down approach of giving and following directions, it is difficult to implement Agile effectively (Denning, 2015). Although many practitioners have written about how to implement agile methods (Appelo, 2011; Fjeldstad et al., 2016; Hoogveld, 2017; Van Solingen & Van Lanen, 2013), not much academic research has been done towards management of organizations transforming towards agile. Due to the different approaches towards management, moving from traditional management to management in an agile context might be restrained or even dysfunctional, producing little if any improvement for the organization (Denning, 2015).

To implement a new way of working in an organization, the role of leaders have been proven incredibly important for the success of the implementation (van Dun, 2015). For many organizations, leadership responsibilities for implementing practices often fall upon middle managers. They bear the challenging responsibility of effectuating top-down mandates through work floor practices (Beatty & Lee, 1992; van Dun, Hicks, & Wilderom, 2017). Being ‘in the middle,’ middle managers influence many members of an organization, to the extent that they can be viewed as “transformational agents” (Van der Weide & Wilderom, 2004). Middle managers are thus of vital concern to an organization as long as they are effective. Many leadership experts assume that for leaders to be effective, behaviors are applicable across the different levels of managerial positions. However, evidence shows that, to be effective, different hierarchical positions require different managerial behaviors, which are almost unknown for middle managers (Van der Weide & Wilderom, 2004).

Besides the special role of the middle manager in implementing new practices, and the different approaches towards management in traditional versus agile methods, there is a third element that impacts the behavior of the middle manager. The principles of the agile way of working (see appendix A) also stipulates the merits of self-steering teams (Alliance Agile, 2001). However, there is only limited understanding of the appropriate leadership for such teams. While prior research has been conducted in the motivational and behavioral implications of self-organized teams (Ferreira, de Lima, & da Costa, 2012; Polley & Ribbens, 1998) the knowledge is at best scant when leadership models for self-organized teams and operational factors are explored (Parker, Holesgrove, & Pathak, 2015). In addition, organizations find it difficult to switch from a hierarchical structure to an environment with self-steering teams (Moravec, 1999; Parker et al., 2015). Research indicates that the reason for this is that handing away responsibility for much of the decision-making to team members is perceived as a high risk. Arguably, there is greater perceived security in following traditional, hierarchical chains of command under the guise of reducing mistakes and maintaining efficiency (Parker et al., 2015). Having established the unique

role of middle managers in implementation, and in particular in an agile context which includes self-steering teams, it is crucial to get a better understanding of behaviors of middle managers.

1.2 Management problem

Research of McKinsey (2016) indicates that when agile does not surpass the threshold of discrete pilot projects, only modest benefits are realized (Comella-dorda, Lohiya, & Speksnijder, 2016). Only fewer than 20 percent of the traditional companies consider themselves “mature adopters,” with widespread acceptance and use of agile across business units. Meanwhile, according to their research, the companies that are deploying agile at scale have accelerated their innovation by up to 80 percent. That is the true goal: accelerating innovation and time-to-market. However, without making significant shifts in organizational structures, roles and responsibilities, and other underlying elements of the operating model, it can be quite difficult for companies to extend agile practices beyond pilot teams (Comella-dorda et al., 2016). The shift towards agile practices thus requires a complementary shift in structure and how hierarchies are applied. Jaques (1990) argues that “although hierarchy or bureaucracy is a dirty word, even among bureaucrats, properly structured hierarchy can release energy and creativity, rationalize productivity and actually improve morale” (p. 127). The managerial challenge lies in how to release and sustain among the people who work in corporate hierarchies the trust, initiative, and adaptability of the individual. Trying to raise efficiency and morale without first setting a well-designed hierarchy with clear accountability on the various levels of work is like trying to lay bricks without mortar (Jaques, 1990).

Similar to other banks, the researched financial institution started the transformation towards agile in 2015. The agile methods were proven to be successful in IT pilot projects and top management decided that the whole bank needed to transition towards agile to accelerate speed and cut down costs. As a result of the movement towards agile, the financial institution reorganized the “change” part of the organization and implemented a new organizational structure with new roles and responsibilities. In addition, the bank introduced new cultural and agile principles - *people leadership, performance management, personal leadership, empowerment, learning ability, client-focused, being cooperative, adaptability, proactivity* and being *entrepreneurial* (for more description of these principles see appendix B) - which middle managers were evaluated upon. The ones who were deemed fit could stay, others were let go. However, despite the important role of middle managers in implementing practices like agile (Beatty & Lee, 1992; Van der Weide & Wilderom, 2004; van Dun et al., 2017), there is no scientific base if these principles are really the factors that make middle managers successful in implementing agile, nor that these behaviors are effective when dealing with self-steering teams.

The aim of this research is therefore to advise management of IT about what types of behavior of a middle manager are required for a successful agile roll-out. This is done by exploring the various types of behaviors of middle managers in an agile transformation within this financial institution and the effect of this behavior on employees. The research question that follows from this is **How can leadership behavior of a middle manager motivate employees to transform towards agile, and what leadership behavior is perceived as helpful in the transformation?**

An understanding of the key behaviors displayed by effective middle managers provides an opportunity for enhanced productivity and improved organizational performance (Van der Weide & Wilderom, 2004). Despite the important role middle managers play in implementation of practices like agile, academic research in this context remains limited. Moreover, existing research on the role of leadership in organizational change exercises often does not consider the phase of change the organization is in at the time of the study (Seo et al., 2012). Yet, it might be that different leader behaviors are important at different phases of change. By focusing on both the initial phase (by means of retrospective accounts) and the middle of the implementation, this study aims to add to the literature on leadership during organizational change. In addition, practitioners write about how management should behave in an agile context, but do not describe what specific management behavior is required to get to an agile way of working. This research will add to the academic literature in how to motivate employees to transform towards agile and what behavior of middle manager is helpful in this transformation.

Besides the relevance for academic research, in practice it means that if (middle) managers were to know more about helpful behavior in agile implementation, their own actions would become more focused and effective. This research therefore has implications for the middle managers of financial institutions that are starting to, or have just started, to transform to agile. In addition, it might reduce costs in two ways: first, a more effective agile implementation is likely to affect employee satisfaction positively, while curbing the social costs of heightened employee stress that has often been associated with “traditional” change programs (van Dun et al., 2017). It might also reduce loss of productivity due to unproductive resistance to change. Secondly, more insight in the behavior that drive teams to cooperate in an effective agile way will actually accelerate the gains of the agile way of working since the cross-skilled cooperation in teams is providing the innovative, quick delivery.

1.3 Outline

The first chapter introduced the concepts of agility, agile, and the unique role of middle managers in implementations towards agile. It explained the need for the research and presented the research question. In addition, the relevance for theory and management practice was explained. In the next chapter, two theories (self-determination theory and social exchange theory) are introduced. Based on these theories, the important role managers play in influencing employee behavior is explained. Moreover, an elaborate conceptualization of supportive middle manager behavior in general and more specifically in agile contexts is provided. The chapter concludes with an a priori template of helpful middle-manager behavior in transition towards agile. The third chapter describes the methodology that was used in this research. It includes methodological choices for the research approach and methods like sampling, data collection and data analysis strategy. In the fourth chapter, the results of the study are presented. More specifically, it discusses challenges faced by employees when transitioning to agile, helpful and hindering behavior of middle managers, and the role of leadership in transitioning to agile. In chapter 5, these results are discussed in relation to existing academic literature and theory. Based on the integration with theory, a number of propositions are offered. This chapter also presents the final template of helpful middle manager behavior. Finally, chapter 6, contains the conclusion of this research and provides recommendations for practice.

2. Theoretical framework

This chapter encompasses the theoretical framework. The first section discusses the role of leadership on employees' behavior. In this section, insights from the self-determination theory and social exchange theory are used to explain how leadership behavior impacts employee behavior. Next, an overview and discussion of existing research on effective leadership is provided. It presents behaviors of effective middle managers in general and discusses which of the general categories of effective behavior is also relevant in an agile context and during the implementation/transition to agile. The behaviors that follow from the review of the relevant literature will form an a priori template of helpful behaviors of middle managers in an agile transformation.

2.1 Role of leadership on employees' behavior

To understand why employees engage in a certain behavior, several theories are widely used to explain this effect. The self-determination Theory (SDT) is an empirically based theory of human behavior and is concerned with the social conditions that facilitate or hinder human flourishing (Ryan & Deci, 2017). The theory argues that employees are optimally motivated and experience well-being when they have three basic needs satisfied: the need for autonomy (act with a sense of ownership), the need for competence (to feel a sense of mastery and to develop new skills), and the need for relatedness (feel connected to others when being part of a group) (Van den Broeck, Ferris, Chang, & Rosen, 2016). According to SDT, employees engage in a certain behavior, besides when they enjoy doing so, because of three types of extrinsic motivation: (a) external motivation, where employees feel forced to behave in a certain manner based on leader's external punishment/rewards; (b) introjected motivation, in which individuals feel pride, shame, or guilt; and (c) identified motivation, in which behavior is more self-endorsed and viewed as important and/or in line with one's values (Van den Broeck et al., 2016). This sense of self-determination is also explained by the motivational model which adds that when employees are provided with more opportunities to participate in decision making, the more motivated they feel (Huang, Iun, Liu, & Gong, 2010).

Another theory that explains how leadership behavior influences employees' behavior is the exchange-based model. This model explains the association between leadership behavior and employees' behaviors based on social exchange theory (Blau, 1964). According to social exchange theory, and specifically the norm of reciprocity, parties to an exchange are likely to reciprocate the

behavior and actions of the other party. To explain how social theory can be applied to leadership, Huang et al.'s (2010) study is used as an example. Huang et al. (2010) used social exchange theory to help explain how participative leaders influence employee behavior. Participative leadership is defined as joint decision making and shared influence between a leader his or her employees (Lam, Huang, & Chan, 2015). By means of participative leadership behavior, it is argued that the manager sends a message of confidence, concern and respect for the employees, which in turn fosters higher levels of trust in the manager. As a result, employees are likely to *reciprocate* their managers as well as their organizations by showing higher levels of work performance (Huang et al., 2010). Based on these two theories, it is argued that employees can be motivated by their superiors to engage in a certain behavior that is effective for the organization.

2.2 Categories of effective middle management behavior

Leader behaviors are specific actions of managers “in interaction with their followers in an organizational setting” (Szabo, Reber, Weibler, Brodbeck, & Wunderer, 2001, p.225). Theories of transformational and transactional leadership provide important insights about the nature of effective leadership (Yukl, 1999). However, most of the theories have conceptual weaknesses that reduce their capacity to explain effective leadership. Scholars have argued that the descriptions are too ambiguous and indicate too little about effective behavior of middle managers (Van der Weide & Wilderom, 2004; van Knippenberg & Sitkin, 2013; Yukl, 1999, 2012). As a reaction, Yukl (2012) integrated various leadership behavior models into a comprehensive taxonomy of four meta-categories of leader behavior: (1) task-oriented leadership behavior, (2) relations-oriented behavior, (3) change-oriented leadership behavior and (4) external leadership behavior (Appendix D). This taxonomy provides more detailed descriptions, but does not differentiate between actual leadership behaviors and employees’ perceptions of that leadership behavior (Behrendt, Matz, & Göritz, 2017). Besides knowing how effective middle managers should behave, it is as important to know how managers actually behave (Van der Weide & Wilderom, 2004; van Dun, 2015). There is often a gap between what managers do and what managers say. For example, managers may talk about empowering employees while they treat their employees in disempowered ways. Such gaps between managers’ words and deeds undermine trust and might cause change paralysis (Van der Weide & Wilderom, 2004).

Therefore, for the purpose of actually observing the behaviors of highly effective middle managers Van der Weide and Wilderom (2004) developed a model containing four sets of managerial behaviors. This model is based upon leadership studies, managerial behavior and middle management literature. The behaviors are subdivided into four behavioral categories: (1) steering,

(2) supporting, (3) sounding and (4) self-defending. Whereas the first three are positive behaviors originating from transformational and servant leadership models and include behaviors like encouraging, helping or delegating, the latter is more negatively stated. A more negative category has been included because highly effective managers cannot always be a true friend to their employees. They are expected to bump into barriers and sometimes need to be self-protective and say “no” when this is in the interest of their business (Van der Weide & Wilderom, 2004). By including a negative category, Van der Weide and Wilderom (2004) are able to provide a comprehensive model which encompasses both positive and also less positive behaviors. An overview of this model is provided in Appendix E. Besides effective leadership being positive and less positive, leadership behavior can also be overused or underused (Yukl, 2012). For example, innovation and empowerment can be limited by too much clarification, just like too much autonomy can result in coordination problems and lower efficiency (Yukl, 2012). This research focuses on those behaviors that are considered **helpful** in transforming towards agile.

The next sections include a more in-depth discussion of each of the categories devised by Van der Weide and Wilderom (2004). This overview is complemented with literature on agile leadership to identify what types of managerial behavior are helpful in an agile transformation.

2.1.1 Steering behavior

The first behavioral class concerns steering, which is typically business-oriented behavior where middle managers get informed and monitor, verify and provide direction (Van der Weide & Wilderom, 2004). According to the research of Van der Weide and Wilderom (2002) ‘verifying’, where middle managers monitor whether the information that was provided to them is correct, is among the three most often used behaviors of highly effective middle managers. This is in agreement with the taxonomy of task-oriented leadership behavior which includes organizing and monitoring (Yukl, 2012). The other two are ‘providing direction’ which is also part of steering behavior and ‘providing positive feedback’ as part of supporting behavior (Van der Weide & Wilderom, 2004). Denning (2015) disagrees that verifying is effective behavior for middle managers in an agile transformation. According to his research one of the major shifts a leader needs to go through to make the entire organization agile is that “the role of management is not to check whether those doing the work have done what they were meant to do, but rather to enable those doing the work to contribute all that they can and remove any impediment that might be getting in the way” (Denning, 2015, p. 5). Van Dun et al. (2017) also found that effective lean middle managers engage significantly less in task monitoring. Other literature on agile leadership does not mention verifying as effective behavior.

'Providing direction' finds its origin in transformational and change leadership literature and has firm ground in academic literature on effective leadership behavior, emphasizing the importance of articulating a clear, common, inspiring vision that serves as a compass during uncertain times (Denning, 2015; Larsson & Vinberg, 2010; Van der Weide & Wilderom, 2004; Yukl, 2012). This type of behavior finds common ground in agile leadership literature as well. According to the leadership-collaboration model of Cockburn and Highsmith (2001) setting goals and constraints within predetermined boundaries is important for agile teams to flourish and innovate. They argue that agile leaders are responsible for setting the direction and providing guidance, which is provided by relying on the leader's ability to influence the team rather than on formal authority or power. Leaders should not make all decisions, but provide an environment that facilitates group decision-making. They need the ability to trust their team members in exercising their skills effectively (Cockburn & Highsmith, 2001). This is in agreement with two specific requirements that Horney (2002) identified in the Agile Model®. This model includes necessities for agile leaders in attaining agility. The first requirement is to provide guidance and direction to teams working across time zones, cultures and organizational barriers. The second requirement is to maintain focus on employee commitment and engagement across generational, global, cultural and demographic boundaries. It is argued that agile leaders should "learn to keep the balance between the right amount of delegation and the right amount of strategic direction, so teams of people can sense and respond to changing needs in their customer worlds" (Horney, Pasmore, & O'Shea, 2010, p. 34). By following flexible and agile practices, a manager becomes an adaptive leader who is setting the direction and establishing the simple, generative rules of the system (Parker et al., 2015). That is needed because "a guiding vision serves as a mechanism that can permeate the work environment and influence team behavior in extremely positive ways, much more so than simple tasks can. The vision needs to become a guiding force that helps the team make consistent choices. A strong grasp of the vision will help the team through difficult decisions about business value and priority and keep them focused on and inspired by the ultimate goal" (Parker et al., 2015, p. 119).

Concluding, this section has shown that both in general effective middle management literature and in agile leadership literature steering behavior is seen as effective behavior. However, there is a slight difference in the type of behaviors belonging to this category which are deemed to be helpful. Especially 'monitoring' and 'verifying' are not recognized as effective in agile leadership. Therefore, for the a priori template this a priori category and its subcategories is oriented towards 'providing guidance, direction and boundaries', together with 'getting/giving information' and 'influencing' and 'delegating'.

2.1.2 *Supporting behavior*

This behavioral class resembles key transformational leadership behaviors and includes relations-oriented behaviors like ‘encouraging,’ ‘stimulating intellectually,’ ‘showing understanding,’ ‘showing interest in others,’ ‘providing positive feedback’ and ‘being helpful’ (Van der Weide & Wilderom, 2004). This type of behavior is intended to increase the employees’ awareness of what is right, good and important and is aimed at fulfilling the needs of employees as defined by self-determination theory (Kovjanic, Schuh, Jonas, Van Quaquebeke, & Van Dick, 2012). Many scholars and practitioners have argued that agile leaders should be supportive and facilitating (Appelo, 2011; Cockburn & Highsmith, 2001; Comella-dorda et al., 2016; Denning, 2015; Hoogveld, 2017; Horney, Eckenrod, McKinney, & Prescott, 2014; Horney et al., 2010; Larsson & Vinberg, 2010; Parker et al., 2015; van Dun et al., 2017; Van Solingen & Van Lanen, 2013). This is not surprising, since it is directly related to one of the agile principles: “Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done” (Alliance Agile, 2001). Managers should remove obstacles, or impediments, that prevent the team from achieving their goals (Parker et al., 2015) and enable and develop those doing the work to contribute their full talents and capabilities to generate value for customers (Denning, 2015; Yukl, 2012).

Besides the behaviors that have their origin in transformational leadership, there are also similarities with what ‘servant leaders’ do. Servant leaders aim to let followers become more autonomous, wiser, and finally become servant leaders themselves (Van der Weide & Wilderom, 2004). This behavior meets the basic need for autonomy as identified in SDT (Van den Broeck et al., 2016). This basic need is also recognized as one of the principles of the Agile Manifesto: “The best architectures, requirements, and designs emerge from self-organizing teams” (Alliance Agile, 2001). In agile teams, developers have interchangeable roles and are self-organizing in that the teams determine the best way to handle the work (Bonner, 2010). A self-steering team is recognized as a self-regulated, semi-autonomous small group of employees whose members determine, plan and manage their day-to-day activities and duties under reduced or no supervision (Parker et al., 2015).

The concept of self-steering, self-organized, self-directed, or self-managed work teams (the terms are often used interchangeably) has now been used for several decades and is popular as a means to make organizations more effective and to improve productivity (Polley & Ribbens, 1998). However, organizations find it difficult to switch from a hierarchical structure to an environment where work units assume responsibility for their own decisions due to two barriers: resistance and misunderstanding (Moravec, 1999). Resistance arises because team members may not like having to hold themselves mutually responsible for a set of performance goals which includes not only

their own behavior but also that of others. In addition, managers often fear a loss of control, status or even their jobs. The second barrier is misunderstanding. Moravec (1999) explains this as follows: “employees might think they don’t need a manager anymore and act on their new ‘rights’ without understanding their new accountabilities. Similarly, managers may become confused about what they should and shouldn’t do (Moravec, 1999, p. 18). As a result, organizations remain skeptical and even dismissive of self-organized teams. Handing away responsibility for much of the decision-making to team members is perceived as a high risk to higher management. Arguably, there is greater perceived security in following traditional, hierarchical chains of command under the guise of reducing mistakes and maintaining efficiency (Parker et al., 2015).

In conclusion, many scholars (Cockburn & Highsmith, 2001; Denning, 2015; Parker et al., 2015) and practitioners (Appelo, 2011; Hoogveld, 2017) have written about the supportive behavior that is expected from agile middle managers. Especially due to the principle of having self-steering teams, middle managers are expected to show less steering and more supportive behavior. It is therefore not only considered as general effective middle manager behavior but also as helpful behavior for agile leaders. This behavioral class is thus included in the a priori template.

2.1.3 Sounding behavior

The third category of Van der Weide and Wilderom (2004) deals with sounding behavior. Sounding means that the manager’s behavior is in alignment with that of the employees. It includes behavior like ‘going along with them’, ‘asking for permission’, ‘admitting mistakes’ or acting as a sounding board for new and different ideas. This behavioral set is rarely found within the leadership literature but is present among highly effective middle managers (Van der Weide & Wilderom, 2004). This is also shown in the research of Van Dun et al. (2017) as two of the five mostly effective behaviors are ‘active listening’ and ‘agreeing’ behaviors, thereby encouraging employees’ views. The ability to seriously listen and focus on worker ideas, wishes and points of view is a common element of successful leadership, just like the ability to create an environment where employees can learn without being punished (Larsson & Vinberg, 2010).

Agile practitioners recognize the fear to fail as an important threshold in becoming agile (Appelo, 2011; Fjeldstad et al., 2016; Hoogveld, 2017). The short iterations in agile way of working stimulate the entrepreneurial way of thinking “fail fast, move forward” (Blank, 2013). In order to experiment, there should be a culture where learning is permitted and even encouraged (Larsson & Vinberg, 2010). Even more important, leaders should consciously deal with the fear of failure in teams and of employees (Hayton, Cacciotti, Giazitzoglu, Mitchell, & Ainge, 2013). The Agile Model® as developed by Horney (2002) from multi-disciplinary surveys and applied research states that one

of the five critical drivers of leadership agility is to ‘generate confidence’. Scholars on agile leadership mention the crucial ability of a leader to give trust. Trust in the ability of the team members as part of the self-organizing teams that they can take up the accountability that goes with the obtained authority and responsibility (Bonner, 2010; Browaeyns & Fisser, 2012; Larsson & Vinberg, 2010; Moravec, 1999; Parker et al., 2015; Szabo et al., 2001).

This section has shown that sounding behavior, although not found much in general effective leadership literature, is considered effective for managers in general, and is also considered effective by practitioners and scholars in agile leadership. It is therefore included in the a priori template for this research.

2.1.4 Self-defending behavior

The final category is self-defending behavior which is the less positive behavior as perceived by the employees, but is argued as still effective for middle managers (Van der Weide & Wilderom, 2004). It is based on transactional leadership, which includes contingent reward behavior and passive/active management by exception (Yukl, 1999). Van der Weide and Wilderom (2004) argue that behavior like providing negative feedback or disciplinary actions to correct the employees’ behaviors is effective when this is in the interest of the business unit. It needs to be taken into account however, that this behavior is only effective when used in a proper fashion. More specifically, middle managers must be able to explain why there is no other option and tell the real barriers they ran into. In addition, this behavior is only accepted by employees when brought in a supportive way. When a middle manager has built enough trust and has proven to be supportive in the past, the follower trusts that the middle manager knows what he or she is doing when enforcing decisions upon them (Van der Weide & Wilderom, 2004). Van Dun et al. (2017) disagree with this point of view and mention in their research that effective middle managers in lean “monitor significantly less, give much less counter-productive negative feedback; and defend their own position significantly less often” (van Dun et al., 2017, pp. 182). From an agile perspective towards leadership, Cockburn and Highsmith (2001) add that in an agile context a leadership-collaboration management model is most effective where leadership replaces command and collaboration replaces control. Albeit, when looking at dealing with change, Beatty and Lee (1992) have argued that transactional behavior like using a leader’s formal position, status and political skills to create change, even in a resistant environment is crucial for the middle manager to be effective in a transformation (Beatty & Lee, 1992). Although many agile practitioners (Appelo, 2011; Comella-dorda et al., 2016; Denning, 2015; Fjeldstad et al., 2016; Hoogveld, 2017) have written about the difficulties for transforming towards agile, to the author’s knowledge self-defending behavior has not been indicated to be beneficial in an agile transformation. In addition,

behavior like disciplinary actions, being uninterested and insulting are not expected to be considered as helpful by employees. Therefore, it is argued that based on the literature review, the behavioral class of self-defending behavior is deemed not to be helpful in an agile transformation.

2.1 Focus on leadership behavior in transforming towards agile

Next to the academic literature on general effective management behavior, the current research sheds light on the essential, but neglected human behavior of managers in implementing agile. Some scholars have argued that agile leadership differs from traditional management (Cockburn & Highsmith, 2001; Denning, 2015; Parker et al., 2015). Therefore, these streams of literature are considered in this section to explore whether behaviors that are not considered in general models have been found in an agile context.

Both lean and agile can be seen as a method of improving the effectiveness and performance of organizational processes and have a similar approach to supporting self-organization (Browaeys & Fisser, 2012). The role of managers in implementing initiatives like lean and agile have been proven incredibly important for the success of the implementation (van Dun et al., 2017). Whereas 20% is related to implementing tools, 80% of the effort in transformations is spent on changing managers' practices and behaviors (Mann, 2009). A focus on human behavior is seen as crucially important for the long term sustainability of implementing such initiatives, since agile and lean require organizational members to adjust their way of working, their values and their behaviors (van Dun, 2015). What makes managers effective is their behavior and internal action logic, how they interpret their surroundings and how they are able to adapt their mindset in line with the new philosophy (Rooke & Torbert, 2005). In addition, there are different leadership styles and behaviors, some of which are compatible with traditional organizational structures, while others are more suitable for agile development focusing on adaptation and innovation (Bonner, 2010).

This is important, since moving from one organizational structure to an agile organization, requires a change in leadership behavior (Denning, 2015). There are only relatively few who try to understand their own behavior and even fewer have explored the possibility of changing it (Rooke & Torbert, 2005). Managers who explore their own personal behavior and development can transform not only their own capabilities but also those of their companies. Success will come to those managers who make an effort to understand their own behavior. They are the ones who can improve their ability to lead (Drucker, 1999; Rooke & Torbert, 2005).

2.1.1 *Change-oriented behaviors*

The categories of Van der Weide and Wilderom (2004) do not recognize a specific behavioral class for dealing with change. However, it is argued that managers use change-oriented behaviors to increase innovation and adaptation to external changes (Yukl, 2012) which is part of the agile way of working. In agile, developers are encouraged to ‘embrace change’. This is in contrast with the stable “waterfall” way of working where the mindset is that with enough planning, all issues can be resolved and an optimal solution can be obtained (Bonner, 2010). Besides the possible differences in effective behavior for the different type of working methods, it is also important to be able to actually adapt to a different way of working. Stiehm (2002) argues that progressing from one phase to another shows the ability, or sometimes lack of ability, of a person to adapt to that change. This is also true for managers that need to adapt to change in an agile way when the environment is turbulent. Today’s world is characterized by continuous change, nonlinearity, increasing uncertainty, and growing complexity (Browaeys & Fisser, 2012). One way of describing the modern world is by means of VUCA (Volatility, Uncertainty, Complexity and Ambiguity) (Hall & Rowland, 2016; Rodriguez & Rodriguez, 2015; Stiehm, 2002). Managers all over the world are struggling with how best to lead in a VUCA world and while few would argue about the need for greater leadership agility, not many are able to articulate specific action plans for managers to become more agile themselves (Horney et al., 2010). One of the guiding principles of agile leadership should therefore be ‘an intrinsic ability to deal with change’ (Parker et al., 2015).

So, agile managers should deal with change on several levels. Agile managers do not only anticipate change, they encourage change and inspire exploration (Cockburn & Highsmith, 2001). Horney et al. (2010) argue that change is at the core of agile leadership and define it as the capability of a leader to dynamically sense and respond to changes in the business environment with actions that are focused, fast and flexible. In addition, they should be able to prepare employees for a VUCA world where a shift in mindset and supporting skills is developed from "I know change is coming, but I can't really see the potential changes that might impact our organization" to "I see change coming and am prepared and already doing something about it" (Horney et al., 2010, p. 38) As a result, they have mentioned the abilities to ‘anticipate change’ and ‘initiate action’ in the Agile Model® as two of the key factors for leadership agility together (Horney et al., 2014).

This specific change-oriented behavior is included in the a priori model since it is so closely connected to the core of agility. To recall, agility is defined as the business-wide capability of an organization to respond rapidly to changes in demand both in terms of volume and variety (Browaeys & Fisser, 2012). It is therefore expected that agile managers not only are able to deal

with change in many ways, but actually initiate change and can also change their own leadership style.

2.1.2 *Collaborative behavior*

Another distinct category that is found in literature on agile leadership is collaborative behavior. Horney (2002) mentions four specific requirements of agile managers that are necessities to become agile. The first two were related to steering behavior. However, the third requirement indicates that a manager should take more risks by connecting talent and moving information and knowledge around the globe. The fourth requirement describes that managers need to make collaboration a signature part of organizational culture (Horney, 2002). An agile leader needs to constantly encourage collaboration (Parker et al., 2015). But it goes further than only paying attention to it. Horney et al. (2010) state that “functional silos have no place in an agile organization, and agile leaders regularly need to model collaborative behavior”. This collaborative behavior is required to make informed decisions by the teams instead of the leader taking them (Cockburn & Highsmith, 2001). But collaboration should not only be encouraged within the teams. Instead, an agile leader should encourage ideas and gain insights across organizational boundaries and from multiple stakeholders (Horney et al., 2010). A point of view which is highly recognized by practitioners of agile (Appelo, 2011; Comella-dorda et al., 2016; Hoogveld, 2017). To move agile beyond pilot projects and create an agile-at-scale environment, leaders need to break down the silos between and within the business units and the IT organization (Comella-dorda et al., 2016).

Although collaboration has already been mentioned as effective leadership behavior in the *steering* behavioral class, it is suggested that it should be a separate class in the a priori template. This section has shown that leaders should not only collaborate with employees instead of controlling them, but they actually need to encourage collaboration and show modelling behavior to break through silos and become agile. Modelling behavior is part of social learning theory as founded by Bandura (1977) where people watch what other people do and what happens to them as a result of their actions. From such observations, they form ideas of how to perform new behaviors, and later this information guides their actions. A point of view which is also relevant in the transformation towards agile.

2.1.3 *Additional behaviors*

There are two additional behaviors which have not been mentioned in mainstream leadership literature, but are deemed to be helpful in transforming towards agile. These behaviors are part of the Agile Model® as developed by Horney (2002) and include ‘liberate thinking’ and ‘evaluate results’. The first behavior is focused on creating “the climate and conditions for fresh solutions

by empowering, encouraging and teaching others to be innovative” (Horney et al., 2014, p. 41). It includes behaviors like generating fresh and original approaches, thinking out of the box, being customer focused and seeking a variety of perspectives in an open-minded manner. This goes beyond the more general behavior or encouraging change or exploration, since it deals more specifically with empowering and teaching others to be innovative.

In addition, the second behavior deals with evaluating results, which means that an agile leader should keep focus on and manage the knowledge to learn and improve from actions. This is something that is deeply rooted in Agile via one of the principles: “At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly” (Agile Manifesto, 2001) and is also often discussed in practitioners literature on agile and scrum (Appelo, 2011; Hoogveld, 2017; Van Solingen & Van Lanen, 2013). It includes behaviors like creating expectations by focusing on outcomes, asking and providing real-time feedback, and measure and decide based on facts (Horney et al., 2014, p. 42). Both behaviors will be added to the a priori template.

2.2 A priori template

Based on the literature review above, the behavioral meta-categories for the a priori template can be established. *Self-defending* behavior is left out of the framework since it is deemed not to be helpful behavior in transforming to agile. Included are the three behavioral categories of *steering*, *supporting* and *sounding*. Whereas the latter two are very much in congruence with the original model of Van der Weide and Wilderom (2004), *steering* behavior in the current a priori template focuses more on sub-behaviors like ‘providing guidance, direction and boundaries’, together with ‘getting/giving information’ and ‘influencing’ and ‘delegating’ instead of ‘monitoring’ and ‘verifying’. In addition to the general effective management behaviors mentioned, four more categories were identified as helpful behavior namely *change-oriented* behavior, *collaborative* behavior, *liberate thinking* and *evaluate results*.

The a priori template is presented in Table 1 on the next page and shows the categories, or meta-categories, which are comprised of several sub behaviors (Yukl, 2012). Van Dun et al. (2017) have shown that some of these sub behaviors can be quite important, and take on special significance because they are enacted by the manager. She requests in her research to further research explication of similar concrete, preferably observable, sub behaviors, which I tend to do in this research.

Table 1

A priori template

Behavioral classes	Micro behaviors	Description	Sources
Steering	Getting and giving information Providing direction Providing guidance Providing boundaries Inspiring others by business principles Delegating Influence	Business oriented behavior where middle managers give and get information, provide direction, guidance and boundaries.	Van der Weide & Wilderom (2004); Cockburn & Highsmith (2001); Horney et al. (2010), Parker et al. (2015); Yukl (2012); Larsson & Vinberg (2010); Denning (2015)
Supporting	Showing understanding Providing positive feedback Encouraging Engaging Stimulating intellectually Showing interest in others Being helpful Visiting teams Facilitating/orchestrating Developing Empowering	Transformational leadership including relations-oriented behaviors. This type of behavior is service-oriented, supportive and is aimed at increasing subordinates awareness of what is right, good and important	Van der Weide & Wilderom (2004); Van Dun (2015); Van Dun et al. (2017); Bonner (2010); Cockburn & Highsmith (2001); Horney et al. (2010, 2014); Yukl (2012); Denning (2015); Larsson & Vinberg (2010); Parker et al. (2015); Yukl (2012);
Sounding	Listening Asking information Asking for ideas/views Discussing Agreeing Admitting mistakes Giving in Learning culture Lead by example Build trust	Sounding behavior means that manager's behavior is in alignment with that of the subordinates	Van der Weide & Wilderom (2004); Van Dun et al. (2017); Cockburn & Highsmith (2001); Larsson & Vinberg (2010); Hayton et al. (2013); Bonner (2010); Broways & Fisser (2012); Parker et al. (2015); Szabo et al. (2001)
Change-oriented behaviors	Embrace change Encourage change Anticipate change Initiate action Inspire exploration Dynamically sense change	Being able to deal with change in many ways, initiate change and also change leader's own leadership style	Bonner (2010); Cockburn & Highsmith (2001); Horney et al. (2010, 2014); Yukl (2012); Parker et al. (2015); Stiehm (2002)
Collaborative behavior	Connecting talent and moving information Make collaboration part of culture Expediting collaboration between people and teams Encouraging collaboration	Collaboration behavior needs to be encouraged and be modeled to breakthrough silos and become agile	Cockburn & Highsmith (2001); Horney et al. (2010); Parker et al. (2015)
Liberate thinking	Bias for innovation Customer focused Idea diversity	Create the climate and conditions for fresh solutions by empowering, encouraging and teaching others to be innovative.	Horney (2002)
Evaluate results	Create expectations Real-time feedback Fact based measurement	Keeping the focus and managing the knowledge to learn and improve from actions.	Horney (2002)

3. Method

The aim of this research is to interpret helpful behavior of middle managers towards their employees in an agile transformation. Whether behavior is considered helpful is based on managers' actual behavior and on the perception of this behavior by employees (Van der Weide & Wilderom, 2004). Since the role of managers in agile have only received limited research attention, a largely inductive approach is used to develop a richer theoretical perspective. To be precise, an exploratory, cross-sectional study is performed to gain insights into how leaders can be helpful in an agile transformation. Exploratory research has as its advantage in that it is flexible and adaptable to change when new data and insights appear (Saunders et al., 2016). Although the study is largely inductive, there is also a more deductive element to the study, since the a priori behaviors identified in the previous chapter are used in the first steps of the data analysis (King, 2012). In fact, according to King (2012), template analysis is somewhere "in the middle" between inductive and deductive approaches.

3.1 Research context

September 2017, the financial institution had 88 IT middle managers (engineering leads, EL's hereafter). They are responsible for the development engineers (DE's hereafter) in a several of agile teams. The number of agile teams they are responsible for is dependent on their position and department, which is reorganized and can have one or more EL's. In total, there are 8 IT business lines, of which 7 include a couple of departments per business line. Only the 'Business Management' business line doesn't include agile teams and is thus excluded from the sample universe. A total overview of the IT organization is presented in appendix H.

3.1. Sample

Although IT middle managers are the subject of this research, their behavior is being experienced by their employees, the employees. In addition, most leadership behavior studies emphasize how much the behavior is used rather than how well it is used. Few studies have examined the quality and timing of the behavior (Yukl, 2012). Helpful behavior is thus a matter of the perception of this behavior, not only what a manager thinks or says is helpful.

The DE's participate in agile teams and are the ones who are being managed by the IT middle managers. The criteria for including DE's are: (i) they are Dutch, to ensure that behavior is not

perceived differently because of cultural differences, (ii) they currently take part in an agile team and (iii) they must have been part of the organization before and during the agile implementation in order to have experienced challenging incidents in the transformation towards agile. In addition, to truly say something about the context in which helpful behavior was experienced, the fourth inclusion criterion is that the DE has worked directly with the middle manager who is selected in the sample. One of the principles of qualitative data analysis is that a social phenomenon cannot be understood outside its own context (Saunders et al., 2016). By selecting an employee from the same department as the manager, information can be obtained on perceived helpful behavior by the manager in a specific context which might a) not be recognized by the employee as helpful, or b) is perceived as hindering behavior. The other way around is also imaginable. It is not the intention to compare the input from the employee with that of the manager one-on-one, instead the context in which this behavior was helpful is of interest and possible deviations in perception provide important insights.

The exclusion criterion indicates that newcomers who have not been part of the organization when there were no agile teams should not be included in the research.

The criteria for including IT middle managers are thus: (i) they are Dutch to ensure that helpful behaviors that are perceived differently is not due to cultural differences. Another inclusion criterion is that the middle manager is an EL within the financial institute, who is responsible for multiple agile teams that have their own Product Owner (PO) and Scrum Master (SM). Only then it is considered a real agile team, since helpful behavior of the middle manager can only be determined when the other roles in agile are fulfilled as prescribed. That means that EL's who also fulfill the role of PO or SM, if any, are excluded from this sample since they have different responsibilities on a day-to-day basis.

The sample size consists of 8 for each homogeneous group, which is within the boundaries (4-12) of the minimum sample size for non-probability sampling techniques while making use of semi-structured interviews (Saunders et al., 2016). The sample size is set at 8 to cover all the IT business lines with agile teams (7) and one extra to pilot the interview protocol. That means that the total sample size is 16, based on 8 EL's and 8 DE's.

For the first homogeneous group of EL's, the researcher selected part of the sample based on volunteers. Participants that desired to participate were included when they fit the inclusion criteria with a maximum of 1 per business line. For the remaining business lines without volunteers, purposive sampling has been applied. For the second homogeneous group of DE's, the selected EL was requested to provide a list of employees who fulfilled the inclusion criteria. From this list,

a DE was randomly chosen by the researcher. The two pilot interviews were conducted based on purposive sampling in the business line with the most grids. These pilot interviews are integrated in the total data set, since questions asked during the pilot interview were also asked during the other interviews, and therefore no substantial changes were made to the protocol (Wikstrom, Eriksson, Fridlund, Arestedt, & Brostrom, 2015). The total sample and the characteristics of the participants is presented in Table 2.

Table 2

Sample selection

Middle manager	Sex	Business Line	Age	Education	# years manager	# years tenure	
MM1	Male	A	34	WO	2,5	9,5	Pilot
MM2	Male	A	35	WO	4,0	10,0	
MM3	Male	B	33	HBO	2,0	5,0	
MM4	Male	C	49	HBO	14,0	19,0	
MM5	Female	D	37	WO	3,0	10,0	
MM6	Male	E	55	WO	15,0	22,0	
MM7	Female	F	31	HBO	2,0	4,0	
MM8	Male	G	45	WO	9,0	12,0	
Employee	Sex	Business Line	Age	Education	# years in agile	# years tenure	
E1	Female	A	26	WO	1,0	2,5	Pilot
E2	Male	A	36	WO	1,5	2,0	
E3	Male	B	48	HBO	1,5	17,0	
E4	Male	C	46	WO	1,5	18,0	
E5	Male	D	54	WO	1,0	28,0	
E6	Male	E	48	WO	1,5	17,0	
E7	Male	F	32	WO	5,0	1,0	
E8	Male	G	57	WO	2,5	30,0	

Potential participants were informed via a message to all EL's. As soon as the EL's were identified as participants in the research, the DE's that were listed by the EL's who fit the inclusion criteria, were approached by mail and requested to participate. To avoid bias and ethical concerns, no DE's of the researcher – who herself is EL within the financial institute – are included in the sample.

3.2. Data collection method

Interviews are the most commonly used method of data collection in qualitative research (King & Brooks, 2017). This method fits well with the exploratory nature of this research. Semi-structured interviews allow behaviors to be described and helpful factors to be discussed, while comparison among participants is still possible due the structured questions (Saunders et al., 2016). Since the sample encompasses two different homogeneous groups, there are also two interview protocols. Both interview protocols are structured in three sections: (i) background, (ii) helpful and hindering behavior of managers in challenging incidents that employees experienced in transforming towards agile, and (iii) motivation for middle manager to show helpful behavior. The background section is

the most structured part and deals with some personal background information of the interviewee and how the subject is involved in the agile transformation. It allows for some probing with regard to the role and experiences with agile in general.

The second part is the most extensive part of the interview and is structured around critical incidents. This technique is called the Critical Incident Technique (CIT) and is ideal for understanding participants' experiences by gathering information on helping and hindering factors that facilitated or interfered with the participant's ability to handle change well (Butterfield, Borgen, Amundson, & Erlebach, 2010). Since this research is aimed at identifying helpful behavior of middle managers towards employees transforming to agile, it is the employees' experience of incidents that needs to be questioned. Therefore, two different protocols were made. The protocol for middle managers included standard questions on what the middle manager identified as a challenging incident for the employee to transform to agile. Incidents at the beginning of the transformation and current incidents were questioned. For each incident, the middle manager was asked to explain what behavior of the middle manager was perceived to be helpful or hindering to the employee in dealing with this incident. In the protocol for employees, standard questions were asked on what incidents the employee has experienced in transforming towards agile. Incidents in the beginning of the transformation and current incidents were questioned separately. For each incident, standard questions were asked on what the role of the middle manager was in this incident and what behavior of the middle manager was perceived as helpful or hindering by the employee. Probing questions were used to ensure that sufficient detail was obtained. In addition, the ECIT method also includes asking participants if there might have been potentially helpful behavior that would have enabled the employee to deal with the incident even better, i.e. the wish list (Butterfield et al., 2010). For middle managers that means that they were questioned how they could have helped better, or what behavior would have been more helpful. Employees were questioned what kind of behavior they would have liked to see which would have helped them better.

The final part deals with how middle managers are motivated to show helpful behavior. As already been mentioned before, there is often a gap between what managers do and what managers say. Such gaps between managers' words and deeds undermine trust and might cause change paralysis (Van der Weide & Wilderom, 2004). Insight into what motivates middle managers to show helpful behavior could mitigate that gap. Questions in the middle managers' protocol are structured on what the organization does to motivate the middle manager, what the organization could do more (i.e. the wish list) and how helpful or hindering behavior is being assessed by the organization.

Employees were asked how they see helpful or hindering behavior of the middle manager is motivated and assessed by the organization.

The interviews were conducted in Dutch since this allows for people to explain in detail about their own experiences in their mother tongue. The interview protocol for the middle managers is presented in Appendix F and the interview protocol for employees in appendix G.

3.3. Data collection procedure

Sixteen individual audiotaped interviews were conducted. Two pilot interviews were conducted to test the interview protocols for both sample groups. The interviews were scheduled at the beginning of November for 1,5 hours during office hours in a meeting room at a location of the financial institution. The pilot interviews showed that the interview did not exceed the time available (interview with EL took 1 hour, interview with DE took 52 minutes). In both interviews an extra question was asked to check if everything had been discussed that the interviewee wanted to share about the subject. This question was added to the interview protocol as an extra section (iv: Other). Both interviews were evaluated and deemed fit for inclusion in the data set (although a question was added based on the pilot interviews, this question was also asked during the pilot interviews). Hereafter the remaining interviews were conducted in the remaining weeks of November by the researcher.

Every interview started with an introduction in which the protocol was explained. The interviewee was asked for approval for audiotaping the interview and informed that only the supervisor of University of Nyenrode and the researcher had access to the tapes and that these tapes were to be deleted after they had been transcribed verbatim. In addition, it was explained that all information would be confidential and that transcripts would be anonymized. Interviewees were assured that participation was voluntarily and could be stopped at any moment, and that nothing that was shared during the interview would be held against the interviewee within the organization. In the last part of the introductory protocol, interviewees were encouraged to share their experiences in detail.

The average length of the interviews with middle managers was 51 minutes and with employees 46 minutes. This is excluding the introductory protocol and explanation of the aim of the research. The shortest interview was with an employee and took 34 minutes. The longest interview took place with a middle manager and had a duration of 61 minutes. The first 5 interviews were transcribed verbatim by the researcher. The transcriptions of the remaining interviews were outsourced and a confidentiality agreement was signed with the outsourced party.

3.4. Data analysis strategy

To analyze the qualitative data set, thematic analysis is most appropriate to identify distinctive themes which shed light on important features of the topic under study (King & Brooks, 2017). Template analysis is an approach within the wider tradition of thematic analysis and is specifically appropriate for research in real-world settings which allows for a lot of flexibility. In this technique, there is no fixed sequence of coding, yet it is an iterative process in which a priori categories can be adapted, refined or deleted during analysis. The process consists of a few subsequent steps: first, preliminary coding is applied in which the a priori themes are carried out on a subset of the data. On the basis of the preliminary analysis, a priori themes and other emerging themes are clustered which form an initial template. The initial template is then applied to further data and is amended until no significant changes are found. When all data of relevance are covered by the template, the full dataset is coded to the final version of the template. The final template is used for organizing the presentation of the data analysis in the chapter on results (King & Brooks, 2017). The pitfall of this technique is that the researcher gets too focused on applying the template to the data rather than using the data to develop the template (King & Brooks, 2017; Saunders et al., 2016). The next sections will provide more insight into how the template has emerged from the data.

3.4.1. Initial template

The a priori template presented in chapter 2 has been used for provisional coding of a sub-set of the data. After 5 interviews – 3 Development Engineers and 2 Engineering Leads - the initial template could be developed as presented in Table 3. The sub behaviors that were added are in red, the behaviors that were deleted are striked-through.

The behavioral class *steering* was extended with the sub behavior ‘steering / stepping-in’, because it was mentioned quite often, although as perceived as hindering behavior by both groups. It is not expected to be part of the final template for identifying helpful behavior, but for analyzing the data it was helpful to identify what is **not** helpful. In addition, the need for structure in and after the reorganization was mentioned by all interviewees, but did not differentiate from the need for guidance, hence it was added to the sub behavior ‘providing guidance’. ‘Inspiring others by business principles’ and ‘influence’ were not mentioned at all.

In the *supporting* class, ‘mirroring’ was added to the sub behavior ‘stimulating intellectually’ like ‘coaching’ was added to ‘developing’, since in the interviewees’ explanations/examples the behaviors did not differ much from each other.

Within *sounding* two sub behaviors were added: ‘(build) trust’ and ‘building on a relation’ between the employee and the middle manager. They were mentioned both by more than 2 interviewees

with one or more quotes. In contrast to ‘admitting mistakes’ and ‘giving in’ which were not mentioned at all.

The final category to mention here is *evaluate results*. There was no mentioning of ‘creating expectations’ but when looking back into literature, it meant to look and measure performance based on output. This was recognized in the interviews and this behavior was therefore renamed as ‘look/measure output’.

3.4.2. Final template

The next step in the analysis was to apply the initial template to the complete dataset to come to a final template as presented in Table 4. An important change in the final template was that ‘steering/stepping-in’ was removed from the behavioral class *steering* and presented as a separate class *self-defending*. Again, not for the purpose of identifying it as helpful behavior, but it was indicated as unhelpful behavior. The template now provides the opportunity to identify both helpful and unhelpful behaviors which provide a comprehensive overview of behaviors experienced. In addition, ‘providing clarity on roles and responsibilities’ was added a sub behavior to *steering*. The final template is used for presenting the results in the next chapter after which it will be discussed in chapter 5 by integrating it with theory.

Table 3

Initial Template

Behavioral classes	Micro behaviors
Steering	Getting and giving information Providing direction Providing guidance / structure Providing boundaries Inspiring others by business principles Delegating Influence steer / step in
Supporting	Showing understanding Providing (positive) feedback Encouraging Engaging Stimulating intellectually / mirroring Showing interest in others Being helpful Visiting teams Facilitating/orchestrating Developing / coaching Empowering
Sounding	Listening / sounding Asking information Asking for ideas/views/ feedback Discussing Agreeing Admitting mistakes Giving in Learning culture Lead by example / role model (Build) trust Build on a relation
Change-oriented behaviors	Embrace change Encourage change Anticipate change Initiate action Inspire exploration Dynamically sense change
Collaborative behavior	Connecting talent and moving information Make collaboration part of culture Expediting collaboration between people and teams Encouraging collaboration
Liberate thinking	Innovative thinking Customer focused Idea diversity
Evaluate results	Create expectations Real-time feedback Fact-based measurement Look/measure output learning / improving

Table 4

Final Template

Behavioral classes	Micro behaviors
Self-defending	Stepping-in
Steering	Getting and giving information Providing direction Providing guidance / structure Providing boundaries / freedom Delegating Providing clarity on roles and responsibilities steer / step in
Supporting	Showing understanding Providing (positive) feedback Encouraging Engaging Stimulating intellectually / mirroring Showing interest in others Being helpful Visiting teams Facilitating/orchestrating Developing / coaching
Sounding	Listening / sounding Asking information Asking for ideas/views/feedback Discussing Agreeing Learning culture Lead by example / role model (Build) trust Build on a relation
Change-oriented behaviors	Embrace change Encourage change Anticipate change Initiate action Inspire exploration
Collaborative behavior	Connecting talent and moving information Make collaboration part of culture Expediting collaboration between people and teams
Liberate thinking	Innovative thinking Customer focused
Evaluate results	Asking and providing (real-time) Feedback Look/measure output learning / improving

4. Results

Only the most relevant behaviors belonging to each of the seven categories are shown. The most relevant management behaviors are those behaviors that were mentioned most often by both employees and middle managers (MM's), or those behaviors that were mentioned very often by one group but were not recognized by the other group (van Dun et al., 2017). In this research, the decision is made to focus on the most relevant sub behaviors of each of the main categories rather than focusing on all sub behaviors in order to not overwhelm the reader. Please note that although presented as quotes, the original quotes were translated by the researcher from Dutch into English.

4.1. Critical incidents

Employees and middle managers were asked to discuss challenges that employees faced in transforming and working in agile. They were requested to discuss these challenges about two points in time: in retrospective when agile was introduced and current challenges. An overview of all types of critical incidents is presented in Table 5.

Table 5

Types of critical incidents

Beschrijf de critical incidents: quotes opnemen die rijk genoeg zijn om koppeling te maken met SDT. 1 in de tekst (beste link met SDT), rest in tabel (incident, quotes, employee, MM, phase)

According to both DE's and EL's, DE's experienced three types of challenges in the beginning. Firstly, all challenges that are related to the new way of working and their new role (type I). Second, challenges with working in teams or changes in the teams (type II). And third, challenges that deal with the structure of the organization and the reorganization itself (type III). At the moment of the interviews, DE's still struggle with type I and II issues. With regard to type II, there are fewer changes in the team now, but there is a bigger focus on how to improve the team. Besides these kind of challenges, both DE's and EL's identified two other types. Type IV deals with issues ranging from issues with the Product Owner, technical issues, issues in general or overarching team issues and dependencies. The final type V challenges are related to unclarity about the role of the EL.

4.2. Behaviors employed in managing critical incidents

The results of the analyses pointed out that from all behaviors of the final template, three helpful behaviors are considered to be most important: *steering*, *supporting* and *sounding* behavior. *Steering* can also be experienced as hindering, when there is lack of it or when there is too much steering. The category *collaborative behavior* is experienced as helpful, and a lack of it as hindering. *Change-oriented behavior*, *liberate thinking* and *evaluate results* are all regarded as helpful, although the latter two are mostly mentioned by EL's. As expected, *self-defending* has specifically been mentioned as hindering behavior. The following sub-chapters provide more detail on the various categories and sub behaviors.

4.2.1. *Steering behavior*

Steering behavior has been mentioned in every interview and has been perceived as helpful and hindering in every type of challenge. In this category, especially 'providing guidance/structure', 'providing clarity on roles and responsibilities' and 'providing boundaries/freedom' are considered when transforming to and working in agile. A full overview of the sub behaviors and examples are presented in Appendix I.

'Providing guidance/structure' was subject of discussion in 14 interviews and is seen as both helpful and hindering when there is too much or the opposite, when there is a lack of guidance and structure. DE's mention the need for "structure", "handles, clarity and profundity", and "timely decisions" for dealing with challenges of type I (new way of working/new role) and type III (structure) just before and during the transformation. One of the respondents explains about the lack of providing guidance by: "there is vision, mission and then a whole lot of nothing. I miss the overarching direction, guidance of priorities and connectedness of functions" (DE6). As a result, employees feel hindered in getting used to a new way of working. The opposite is true as well, when the new way of working is imposed as another respondent explains: "when you impose things, people only follow while in agile you want people to understand the concept and change themselves. You need guidance do to that and then leave it up to the teams" (DE7). This is acknowledged by the EL's and EL5 describes this as: "The intrinsic motivation to go through a certain change lies within people themselves while now agile is being imposed on them. On the one hand it is good that we change to the agile way of working as an organization, on the other hand you see that people see it as a "must-do" and are struggling with it because it is connected to a reorganization". However, 5 of the EL's believe that sometimes it is necessary to be imposing in type I and III challenges. This is illustrated by EL1 who states: "To force a change, we sometimes just need to tell how we're going to do it. And that is then for everyone and everyone need to

adhere to it. That is not agile at all, but it is clear". The balance for EL's lie in providing direction without imposing. This is not only true for dealing with challenges of type I and II, but also when teams are struggling with issues (type IV). Four EL's mention that it is difficult to not interfere and tell employees what to do. EL1 says about this: "it is an uncomfortable feeling of wanting to help but having no idea on how to do this without taking over the steering wheel, but you don't dare to rely on the team themselves to do it and don't have the time to do it together".

The importance of 'providing clarity on roles and responsibilities' lies merely in the absence of it. For both the DE's and EL's the role of the EL in agile is unclear (type V) which is hindering the DE in when to go to the EL for help or what to expect. DE2 stated: "it is challenging that it is not clear what the role is of the EL. When do I go to the SM for an issue, and when to the EL when I have weekly one-on-ones with the EL?". Or DE2 questions: "what does a PO do and what does an EL do?". Some believe that EL's should be involved in content to be able to help, others say that they should stay away from content or get frustrated. EL1 describes it as "my role is not strictly designed and provides some room for interpretation. That has advantages and disadvantages. Disadvantage is that I wonder what belongs to a team and what not. Finding a balance is a challenge". EL2 summarizes the view of all interviewees as: "the unclarity of the role of the EL is preventing DE's to embrace agile".

The final sub behavior to be discussed here is 'providing boundaries/freedom'. Seven DE's experience providing boundaries as helpful behavior and the lack of freedom and boundaries as hindering in type I and III challenges. As DE1 explains: "it makes it easier that the very strict way of working has been let go of and we can look at what is working for us. You need some boundaries to work with, but some things [of agile scrum] aren't just working". This sub behavior is often mentioned in combination with 'providing direction'. EL7 states that the responsibility of the EL is "to provide boundaries, since there are only few people who look overarching. Therefore the EL should create a mission, vision and the overarching goals, together with the teams". EL2 has been hesitant in how much freedom to provide in the beginning. He mentioned that "my guidelines were strict because I didn't want freedom for all, but it could be that teams experienced that as hindering. I first wanted to have a clear picture of what agile could mean to us before running into a free for all transformation". The struggle is perfectly described by EL4: "Partly you need to provide boundaries but the difficulty lies in to what level you do that and then let go for the teams to pick it up. If you go to deep in content, you take away room which you actually want to provide. You want them to drive you crazy with new ideas, but you also want them to succeed when they can't do it themselves. That balance is difficult, because you want to provide them space, but without them knocking out".

4.2.2. *Supporting behavior*

Just like *steering* behavior, *supporting* behavior has been mentioned in every interview and has been perceived as helpful and a lack of it as hindering in almost every type of challenge. In this category ‘facilitating/orchestrating’ behavior was discussed most often followed by ‘developing/coaching’. ‘Being helpful’ and ‘visiting teams’ were both mentioned by 10 interviewees. A full overview of the sub-behaviors and examples are presented in Appendix J.

‘Facilitating/orchestrating’ is seen as helpful behavior by all DE’s and almost all EL’s in dealing with challenges of type I, II, IV and IV. DE’s indicate that EL’s should facilitate in a number of ways as DE6 explains: “EL’s should facilitate, take care that there are enough of the right people, that all bumps in the road are taken away, that teams can work as they should, that escalations are taken care of and be the one who discusses with other grids”. EL’s agree on this view as EL1’s answer illustrates: “For me, agile is about taking care of facilitating people to do what they can do. That they can take their responsibility instead of interfering with all kind of things that others have far more knowledge of”.

Another helpful behavior is ‘developing/coaching’. Six DE’s indicated that they are stimulated and coached in agile values. In addition, focus on development was seen as helpful in the transition to the new way of working since one of them states: “I was taught in the new way of working by seminars, workshops and discussions in the team. That was initiated by the EL which made the transition fairly easy”. EL’s see coaching as part of their role as expressed by EL1: “I have an important role in education, coaching, helping, the right working climate, staffing teams adequately with the right skills, facilitating that teams can deliver and be the first point of contact for escalations”. But also “to provide an environment where DE’s can develop”.

As the previous example already showed, there is thin line between coaching, facilitating and helping. DE’s relate to helping when impediments are being solved for them or when an EL takes action on their help request as DE1’s explanation illustrates: “solving things, coming up with suggestions and mediate where needed” . It really refers to an EL going into action mode for dealing with challenges of type II and IV. ‘Coaching/developing’ merely refers to all the types of challenges but focused on how individuals should deal with them. ‘Facilitating’ behavior is related to challenges without content knowledge and is directed towards making sure that DE’s and teams can work as smooth as possible. The actionable nature of ‘helping’ is illustrated by an EL as: “sometimes you help them by telling them directly how things work or take up impediments and solve them”. In addition, some EL’s indicate that teams sometimes take too long before asking for help and that this needs to be stimulated constantly, or self-defending behavior like stepping-in is

seen as helpful. This is viewed as hindering by DE's. What also is seen as hindering is when an EL becomes a constraint in the progress of the teams. EL3 recognizes this as "when there is an impediment for an EL to solve and the EL can't solve it quick enough due to a busy agenda".

The fourth sub behavior to be discussed here is 'visiting teams/visibility' which is seen as helpful and a lack of it as hindering in dealing with all types of challenges. DE1 explains both viewpoints: "The EL couldn't see that the team wasn't working very well because he doesn't visit our scrum events. That would help I think. Then you can see what is going on instead of relying on what people say to you". It goes hand in hand with 'being helpful' which was also hindered by a busy agenda. "Leads are quite still in a meeting culture which makes them occupied quite often and thus not engaged with the team. His full agenda is hindering". It even explains why some DE's don't ask for help as DE4 explains: "I didn't approach the EL because I don't see him. If he was more engaged or seen more, then I would have thought of it. When you don't see someone that often, you don't discuss these kind of things". 4 EL's recognize that they want and should visit teams more. The usefulness is shown by EL8 who visits his teams quite often: "When I see in a huddle, or in a review that only one person is talking, then I am going to do something about that. Asking questions to the others. But when they cooperate nicely together, I give a compliment. Then I tell them why I think it goes well and I back off".

4.2.3. Sounding behavior

Sounding behavior is solely considered as helpful behavior by 6 DE's and 7 EL's, especially in dealing with type I, II, IV and V challenges. Appendix K shows the rank-ordered sub behaviors with 'build trust' mentioned most often followed by 'discussing'. 'lead by example/role model' and 'asking for ideas/views/feedback' share a third place. A general observation is that EL's mention these various sub behaviors more often than DE's.

To explain the effect of 'trust' in transforming to agile, a beautiful quote of EL4 is used: "It was an eye opener to me when one of the employees asked me whether he could take it up himself. You can broadcast, you can tell, but people experienced it as exciting and scary to do so. It's like standing at the sideway of the pool when you start to learn to swim. You have to jump to learn and you don't want to push, but the temptation is big enough to do so. You need to stimulate and check informally how it went to create trust and make it happen". It is a point of view shared by almost all EL's and 3 DE's illustrated by DE3 who mentions that "getting trust, building trust, is important to become more agile".

Almost as popular as 'trust' is 'discussing' which are often combined in the responses of the EL's. EL3 states that "starting the conversation helped to deal with the change. Giving trust and

encouraging them to have trust. Reply to their concerns”. It is something which is recognized as helpful behavior by 3 DE’s, both discussions with other stakeholders to be helpful as well as with the DE’s themselves about their concerns and move to agile.

‘Lead by example/role model’ is third in line and perceived as helpful behavior with 5 EL’s and 3 DE’s. EL5 stresses the importance of a role model as follows: “It is really helpful when you have sufficient good examples around you. It is hindering when you think that people can learn it by just going to a training. Not at all. People need to learn together and it helps when there are people around that are role models. That fastens the process”. The EL’s state that they try to be a role model in working agile, and that has worked for DE2: “My EL was truly inspiring. A motivator. Someone with a lot of knowledge and enthusiasm who tells you where to focus on. He was a coach and shared a lot of information”.

Also seen as helpful behavior by only 2 DE’s and 6 EL’s is ‘asking for ideas/views/feedback’. It is considered helpful by only one DE when the “EL asks for feedback on what he does right, what can be improved and how I think he is supportive” just like many EL’s meant it to be helpful. However, the other DE who discussed this sub behavior felt that the absence of it was hindering: “I would like to be asked how I think a new resource would fit in the team. Now that is not happening and resources are imposed on the team”. In the end, EL6 summarizes it as: “Asking, asking, asking and hoping that the team comes up with a solution that is embedded in the team”.

4.2.4. *Change-oriented behavior*

In the category *change-oriented* behavior, mostly ‘embrace change’ and ‘inspire exploration’ are deemed helpful, especially in dealing with type I and II challenges. Although EL’s specifically mention these two sub behaviors, the DE’s are more spread over the various sub behaviors and don’t have a preference to one or another as can be seen from appendix L. EL’s describe their behavior as helpful by encouraging DE’s as illustrated by EL3 to “be open for novelty, for a new environment, a new team and to start experimenting”, EL1 who states “just trying” although they acknowledge “it was challenging for the DE’s to embrace the agile principles while they were so drilled in making plans” as EL6 described. DE’s actually enjoyed the fact that they were inspired to explore their new role and felt stimulated to do so.

4.2.5. *Collaborative behavior*

As can be seen from appendix M the category *collaborative behavior* is seen as helpful behavior by 6 DE’s and 7 EL’s with ‘expediting collaboration’ as the most discussed sub behavior for type II challenges. Due to the agile transition, DE’s work more in teams which they enjoy, but as DE1 describes it they need EL’s to “be tougher on good collaboration within the teams. Especially for

people who are not used to working in a team”. Two other DE’s mention that a team feeling is hindered when there are too many changes in the team as DE3 explains: “To really work efficiently in a nice team, you need to keep it consistent”. Examples of EL’s expediting collaboration are “challenging the cooperation” (EL8), “having teams sit together” (EL4), and “check coordinating activities and act upon it when it takes too long” (EL3).

Statements of DE’s with regards to ‘make collaboration part of culture’ were derived from a lack of it. This is shown by 2 DE’s not having a clue how many teams there were in their Grid. DE3 mentions that he has “a tunnel vision and only focus on his piece of the puzzle” and DE5 who states “not to focus on the rest of the organization”. This is hindering in type IV challenges when a team needs another team, or is interfering with another team, but is not aware of this. EL5 specifically focus on making collaboration part of culture by “selecting people based on mindset and behavior instead of knowledge to create chemistry between people, because that makes collaboration easier”. In addition, for these types of challenges, DE’s thinks that ‘connecting talent and moving information’ is helpful behavior. DE1 explains: “the EL is in a good position to keep teams connected and that it is very valuable that information is shared between teams so that you are informed of what others team do”. This is recognized as helpful behavior by the EL’s as EL7 explains: “you should use your network to connect people and give them the knowledge to solve impediments”.

4.2.6. Evaluate results

Eleven respondents mentioned *evaluate results* in the interview as helpful behavior. This was merely focused on ‘asking and providing (real-time) feedback’ and ‘learning/improving’ as helpful behavior for challenges of type I and II. Almost all of the respondents that have mentioned ‘asking and providing feedback’ do this as something that could have helped or should be improved i.e. a wish list item. DE2 requests for feedback “to see if we do the right things, if something is good enough especially now we need to figure it out ourselves. But with more profundity instead of only hearing that we’re doing okay”. However, although EL’s acknowledge that they want to be present more in scrum events for providing feedback, they also argue that teams should be better in providing each other feedback. EL2 expresses the view of the other EL’s by explaining this problem as follows: “The biggest problem is that we have gone through a reorganization and introduced 5 cultural principles which, if you visit a random retro of any department, is just not happening. The discussion on quality and professionalism, how to provide feedback, is going very slow”. EL’s try to help in this by “stimulating it constantly” but are hindered because “there is quite a stigma on managers in a retrospective, because they are the manager” as EL1 explains. As a result, some EL’s choose to not join retrospectives and thus only stimulate feedback in one-on-ones,

whereas other EL's believe there's nothing wrong with joining a retro. EL1 continues "By doing so you know better what a team does and you can observe as an outsider how they interact with each other. That makes you able to help people and coach SM's".

With regards to 'learning/improving' 3 DE's argue that teams themselves should be looking at what needs to be improved, although that is experienced as challenging. EL's argue that it is either their role to help in teams improving more, or bring in a coach to help with "holding a mirror", "help and improve". EL8 summarizes this as: "When teams think they're ready, that makes me nervous and want to challenge and observe, but when teams are not satisfied I can relax because they will improve themselves".

4.2.7.Liberate thinking

This category has been discussed the least, only by 5 respondents of which 2 DE's and 3 EL's as presented in Appendix O. 'Innovative thinking' was referred to in 4 interviews as a response to dealing with type I challenges. DE's don't consider 'customer focused' at all. EL3 and EL4 deliberately stimulate teams to be innovative as illustrated by EL4: "pay attention to it and ask people to share their ideas so it becomes a habit". EL3 pursues "changing a couple of cultural aspects, not so much related to delivery, but how we innovate as teams". DE4 feels that "there is more freedom to contribute with new ideas" and DE8 specifically mentioned that the EL had organized a session to "discuss the strategies of the bank including innovation and started an open conversation to hear what we thought about this".

4.2.8.Self-defending behavior

'Stepping-in' as part of *self-defending* behavior is mentioned only once as helpful sub behavior. EL1 argues that "when some things are important for delivery, although they are ad-hoc, they should be taken into account. A kind of 'when-the-shit-hits-the-fan-board'. It should not happen too often, but it should be possible to step-in and ensure that a team goes in the right direction". 3 other EL's and 4 DE's consider 'stepping-in' as hindering behavior in type I and III challenges. DE1 experienced the behavior from EL1 as "the chain of yelling" and it causes "frustration when something is pushed in the sprint which should not be accepted because it hinders the sprint goal". The chain of yelling is explained as "the top deviating from the new way of working to tell what needs to be done". This type of behavior is confirmed by 3 other DE's in different settings, from imposing a certain solution to processes and resources and is referred to as "agile when it could, PRINCEII when it should" by DE1. EL8 responded that "we're far away from teams who are so mature and confident about their choices that they can send away their EL when he tries to interfere".

4.3. Linking middle managers behavior to managing critical incidents

As mentioned before, every interviewee identified challenging situations in the agile transformation for DE's. In most of these situations there was a role for the EL that helped employees to overcome the situation. However, there were also situations where the behavior of the EL was experienced as hindering. The results of how the EL has helped or hindered the DE to deal with the challenge is presented below.

4.3.1. Type I: *New way of working and new role*

DE's have expressed that to move to a new way of working and to fill in a new role, they are helped by EL's showing behavior in all 7 categories. By 'providing feedback', 'coaching', and 'holding up a mirror', awareness is created of what the DE should adjust and DE's are stimulated to take action to change by specific change-oriented behavior. This is illustrated by DE1 who mentioned that "I became conscious of the fact that I have difficulties with some things that I need to work on due to the feedback of the EL". In addition, DE's felt confident to change due to the 'trust' and 'inspiration to explore' from their EL's. Also 'role modelling' was considered particularly helpful and made DE's to embrace the change as illustrated by DE2: "My lead had a pioneering role that we could hang on to in the transition. His mindset was very open in that we were going to invent the wheel, and that made me think it was nice to do something new and embrace the new way of working". The importance of role modeling and support was also made clear by the expression of "agile when it could, PRINCEII when it should" which frustrated DE1 in adopting the new way of working. It is difficult to explain that a team needs to work according to agile when the top can still deviate from it as illustrated by EL7: "You need to lead by example with what you state as an example". In addition, by 'providing boundaries/freedom' DE's were acknowledged in their search for autonomy for the teams as DE5 indicates: "I think it needs to be intrinsically motivated to understand how agile works instead that someone is telling you how to work". Employees should truly understand what agile is instead of following orders.

The lack of guidance, of (profound) feedback, of understanding and lack of clarity of the role is experienced as hindering DE's in becoming agile. It slows down the adoption and makes it difficult for DE's to get used to the new way of working. DE2 relates to this as: "I want to make things concrete but when teams are responsible for finding out how to do it ourselves, that prevents us from doing the right thing from the start". EL2 recognizes the lack of clarity and states: "It is hindering for a DE that he doesn't have a clear image of what is expected from him. There is no incentive to become more agile. There's no direction at all to what is expected from a DE".

Finally, when DE's are faced with challenges and they could use some help, the absenteeism of the EL prevents individuals and teams to be helped. EL5 describes this as: "It is hindering that I am not available for my employees who would like to use me as a sounding board, because I am full with appointments with stakeholders to create space for the teams to deliver. I want to be more available to listen what people are struggling with".

4.3.2. Type II: Working and changes in teams

For DE's to work efficiently in (new) teams, EL's were helpful by supportive, sounding, collaborative behavior and evaluate results. Many DE's enjoyed working in teams but experienced difficulties in collaboration, evaluating and improving in teams. By stimulating to give feedback and visiting scrum events, EL's improve the skills of DE's to give feedback and improve their ability to collaborate. EL8 does this by "challenging the cooperation in the team and see how they cooperate when I sit with the teams and visit their retrospectives. I invite members to refine their own ideas to decrease the influence of the local heroes and boost their self-confidence". This behavior is thus intended to help employees dealing with difficulties in collaboration and stimulate them to cooperate.

However, DE's indicated that it takes a while for a team to become efficient. Behavior that was truly hindering in this was when EL's imposed resources on the teams or changed the team setup. This was merely done in the beginning of the transformation since few teams already started to work agile before the reorganization settled the design of the teams. DE's got the feeling that they had to start all over again when this happened as DE1 mentioned: "When an EL changes a team he needs to take into account a starting up period. The EL did not foresee how much impact it has on a team when you change the composition". In this way, the EL influenced the performance of the team with his actions.

4.3.3. Type III: Structure

When DE's discussed challenges of type III it was either because the organization was not yet reorganized and DE's needed help from EL's to force stakeholders to work according to agile. This is illustrated by DE8: "In the beginning the EL is even more important to force things. Then you can use him to address the organization and others around it". Also the uncertainties as part of the reorganization were mentioned. For dealing with the latter, especially providing information, being supportive and sounding was experienced as helpful. This behavior had as a result that employees were aware of why the reorganization had to take place and felt the urgency and support to change. In addition, employees felt that the process was honest and they felt supported during

the reorganization. DE4 explains it as: “What I appreciated was when the EL showed understanding at my job interview and afterwards checked up on me how it went”.

Challenges of this type were also related to a lack of structure after the reorganization and when things weren't made clear yet. Analysis of the results on the need for structure shows that when an EL gives sufficient guidance and structure, DE's know what is expected of them and start to transform and work according to agile as DE7 illustrates: “We try to adopt the agile way of working as much as possible in the teams by working with the handles and guidelines provided by the organization”. However, when the structure provided is too strict, DE's feel imposed and express their need for autonomy. DE5 explains: “It is a thin line that an EL is not imposing something, but is making sure it happens. You need to make the team responsible”. Giving too few guidance is also a possibility, making the teams inefficient again: “Without overarching decisions, we make solutions ourselves in small, self-steering, self-thinking teams with the result that we hinder each other. That cannot be the intention”.

4.3.4. Type IV: Issues

How leadership behavior contribute to this type of challenge is fairly easy to deduct. Were the issues solved? The way this is done matters though. DE's only feel helped when they requested help or when they think the EL should have signaled that they needed help. The moment when to help is subjective and differs for the DE opposed to the EL as illustrated by EL3: “It is very nice if teams can solve it themselves, but it shouldn't take too long. They need to include the SM at a certain time, whom I can help”. Going to quickly into ‘being helpful’ can be considered as hindering autonomy as EL6 explains: “I am sure I went into control mode. I stepped in. Interfering with how things could be improved, active steering. And I got fierce feedback on it, which was totally justified. It was natural behavior to me, this is how I've been conditioned. It was always aimed at results and it is very difficult to sit on your hands when you think how to do better”. Again, both groups feel it's a balancing act for EL's to facilitate teams by connecting with other teams or help in solving issues without interfering.

4.3.5. Type V: Unclear about the role of the EL

Some DE's expressed that they were already quite autonomous and had difficulties in explaining the role of the EL in the situations that were still challenging to them. They experienced that the EL was more at distance and this was perceived as how it should be. DE6 frames it as: “It could very well be that the EL does things that I don't see what makes me not missing them. It is one of those roles that are done best if you are invisible”. However, other DE's, who have an EL that

previously was their team lead before the reorganization, were much closer to the EL. They were the ones who had difficulties with the (in)visibility of the EL and to understand what the role of the EL exactly was. DE1 mentions: “It is challenging for me that it is not clear to me what the role is of the EL. When do I go to the SM for an issue, and when to the EL?” The positive side of a good relation is that there is trust. What makes it challenging is that the unclarity confuses the DE’s on how to work agile with the various roles that are identified within the financial institution which makes it harder to adopt the new way of working. After all, how should DE’s work when it is not clear to them what procedures to follow.

4.3.6. Motivation of middle managers to be helpful

In identifying what behaviors are helpful, EL’s also gave insights in why they show this behavior. Every EL showed an intrinsic motivation to be helpful but was aware that he or she could be more helpful or less hindering sometimes. Some EL’s are motivated externally by their manager as EL3 illustrates: “My manager is motivating me to be helpful by being focused on what we should deliver together. He should determine the agenda where the EL’s should focus upon”. However, to be more helpful, EL’s indicate the importance of role models as illustrated by EL1: “It would help if there are role models at the top. Because that would help me. Occasionally I feel that I need to invent the wheel myself. There is a lot of self-reliance”. Other EL’s are not motivated by the organization. They are provided the opportunity to be helpful, but are not truly motivated to be helpful. What they all have in common is that they are not sure what their role exactly is and how they should be helpful. The risk of this is explained by EL2: “The agile transformation is dependent on the ownership and proactivity of its EL’s where the possibility is that everyone is just doing something, with all good intentions, without knowing whether this is the way uniform way to reach the strategic transformation of the organization. The direction is unclear just like what we try to accomplish with each other. I don't believe that we're becoming more efficient or a better agile organization because it's not clear what is helpful and hindering behavior”.

5. Discussion

5.1. Contributions of the research

5.1.1. Role of leadership in transformations to agile

A middle manager plays an important role in implementing a new way of working by effectuating top-down mandates through work floor practices (Beatty & Lee, 1992; van Dun et al., 2017). However, when going through a transformation towards an agile way of working, the middle manager is also confronted with a new role, as a manager of self-steering teams. It is argued that there is a difference in how employees should be motivated in transforming towards agile at different phases of the implementation. The results of this study have shown that in the beginning of the transformation (Time 1), employees experienced different kinds of challenges compared to challenges that were faced in the middle of the implementation phase (Time 2).

The challenges in the beginning of the transformation deal with traditional change management, like understanding the (values of the) new way of working, the new role and new dynamics of working in a team (Kotter, 2007). In addition, when an organization needs restructuring, this study shows that employees are hindered by the pace of the restructuring. For example, when parts of the organization are working according to the new way of working but other stakeholders have not changed yet. The challenges in this phase of the transformation are related to the need for competence and relatedness as explained by SDT, and less towards the need for autonomy (Van den Broeck et al., 2016). Employees expressed the need to feel competent in the new way of working in a new environment. “We were all in it together, at a starting point, with the new way of working. Because of that I didn't had to ask how people were working because we had to find out together. That was beneficial to me” (DE2). According to SDT, employees engage in a certain behavior when they are extrinsically motivated, therefore a middle manager in this phase of the transformation should apply behavior that deals with these challenges. External motivation by agile coaches and middle managers, where employees get clarity to behave in a certain manner, was considered fulfilling the needs in order to help employees transform into agile. Also identified motivation, in which behavior is self-endorsed by explaining, advising on or role modelling the values of agile and the new way of working was considered helpful.

The challenges that were faced at time 2 of the transformation differ in what employees need from the middle manager to be motivated. Implementing self-steering teams causes upheavals of patterns of thinking about one self, others, leadership, and the organization (Moravec, 1999). This

is reflected by respondents who expressed that the need for competence is not fulfilled by exploring the new role, but by improving in the new role. This provides the room to focus on clarity of roles of others instead of understanding their own role, which results in challenges of Type V (uncertainty of role of EL). In addition, the need for relatedness is no longer focused on difficulties in working in a team, but are focused on changes in the team or working with stakeholders outside the team. However, the most important difference is that the need for autonomy is much stronger in this phase of the transformation. Employees are motivated when they feel a sense of ownership and are provided with opportunities to participate in decision making, as also explained by the motivational model (Huang et al., 2010). They express the need to be facilitated or helped on their request when faced with challenges, which reflects the need for sense of ownership. However, it also reflects the misunderstanding about one's autonomy which often arises when introducing self-steering teams (Moravec, 1999). Results have shown that it is a thin line in which employees feel satisfied in their sense for autonomy, and when they feel hindered when they act on their new 'rights'. Arguably, it is confusing for a middle manager what they should and should not do, while making sure that employees understand their new accountabilities as well. To understand how middle managers can help employees to transform in the middle of the implementation, the exchange-based model can be applied which explains how leadership influences employees' behavior based on social exchange theory (Blau, 1964). By joint decision making and shared influence between a middle manager and his or her employees, it is argued that the manager sends a message of confidence, concern and respect for the employees, which in turn fosters higher levels of trust in the manager. As a result, employees are likely to reciprocate their managers as well as their organizations (Huang et al., 2010). This theory is reflected in the results of this research as employees felt confident to change due to trust and inspiration to explore. However, it also shows that employees and managers should have an understanding of what the role of the manager encompasses in order to share influence and making decisions jointly. After all, a manager can only make joint decisions on items they have authority over.

Concluding, at Time 2 of the implementation, it is argued that middle managers should focus less on external motivation by telling or imposing on what employees should or should not do. Instead it should make decisions and share influence with employees to meet the need for autonomy. In addition, in this phase a middle manager should induce introjected motivation, in which employees feel pride, and identified motivation, in which behavior is self-endorsed and viewed as important.

Seo et al. (2012) found in their longitudinal research that different leadership behavior is needed in different phases of implementing change, but that this has rarely been examined. They argue that major tasks of transformational leadership, like developing a vision for change and inspiring

employees towards the vision, are needed in the initial phase of change where organizations set the direction for change and mobilize resources for change rather than in the later phases where organizations focus on sustaining and stabilizing the change (Seo et al., 2012). Hence, this study provides important implications for better understanding and managing the complexity of organizational change at different moments in time. The author therefore proposes the following propositions to be researched in future research on the role of leadership in agile implementation:

Proposition 1a: During the initial phase of transformations to agile (Time 1), middle managers are more likely to motivate employees to adapt to the agile way of working by external motivation (steering behavior ‘providing direction’ and ‘providing guidance/structure’) and identified motivation (supporting, sounding, change-oriented and collaborative behavior).

Proposition 1b: In the middle of a transformation to agile (Time 2), middle managers are more likely to motivate employees to adapt to the agile way of working by introjected motivation (supporting behavior) and identified motivation (steering ‘providing boundaries/freedom’, supporting, sounding and evaluate results behavior).

Proposition 2a: During the initial phase of transformations to agile (Time 1), middle managers are more likely to extrinsically motivate employees to adapt to the agile way of working by fulfilling the needs for competence and relatedness, and to a lesser degree by the need for autonomy.

Proposition 2b: During a transformation to agile (Time 2), middle managers are more likely to extrinsically motivate employees to adapt to the agile way of working by fulfilling the needs for autonomy and competence, and to a lesser degree by the need for relatedness.

5.1.2. Helpful behaviors

All behaviors as identified in the final template of chapter 3 were considered to be helpful, except for *self-defending* behavior as defined by Van der Weide and Wilderom (2004). They argued that self-defending behavior is used by effective middle managers since managers cannot always be a true friend to their employees and need to say “no” sometimes (Van der Weide & Wilderom, 2004). This research has not found any of the sub behaviors of the *self-defending* category to be helpful. However, it is argued that the sub behaviors of this meta category do not match with the description. ‘Providing boundaries’ is a way of saying no, and this is seen as helpful behavior. In addition, results showed that ‘stepping-in’ behavior which was included in the category *self-defending* in the final template, can also be seen as too much steering or supporting behavior as perceived by employees. It is therefore argued that the original model of Van der Weide and Wilderom (2004) is not applicable to a full extent in an agile context. The model should have only three types of

behaviors, since the effective part of *self-defending* behavior is already incorporated in *steering* behavior.

Steering and *supporting* behavior are seen as most important helpful behaviors in dealing with challenges in a transformation. However, the sub behaviors ‘providing guidance/structure’ and ‘providing boundaries/freedom’ as part of the *steering* category can be overused and underused. Too strict structure and boundaries are seen as conflicting with the need for autonomy. However, a lack of direction and boundaries results in coordination problems and lower efficiency (Yukl, 2012). In addition, it is argued that in the beginning of a transformation more steering and supporting behavior is needed than later on. The exact moment when employees have fulfilled their need for competence and want to increase their need for autonomy is the moment that steering can be perceived as hindering if not adjusted. Horney et al. (2010) already referred to this balance between the right amount of delegation and the right amount of strategic direction as an important leadership behavior. It means that a manager needs to be adaptive and sense what the balance should be (Parker et al., 2015). However, the right balance is a perception. Introducing self-steering teams can result in misunderstanding on what the rights and responsibilities of self-steering teams are, and resistance by management due to a feeling of loss of control, might hamper progress in transforming towards agile. ‘Providing clarity on roles and responsibilities’ becomes an important sub behavior then.

With regard to supporting behavior, ‘facilitating/orchestrating’ and ‘developing/coaching’ is seen as most important sub behaviors, followed by ‘being helpful’ and ‘visiting teams/visibility’. The first and second sub behaviors refer to enabling teams and individuals respectively to contribute their full talents and capabilities (Denning, 2015; Yukl, 2012). ‘Being helpful’ refers to removing obstacles or impediments (Parker et al., 2015). There is disagreement however on how knowledgeable a manager should be in content to be helpful. Whereas some argue that content is required to understand the context to help, others have argued that content is left to the teams and specialists. Providing clarity on roles and responsibilities should help in identifying what the right balance is for managers. In addition, this research also found that ‘visiting teams/visibility’ is seen as important behavior (van Dun et al., 2017) to show all the other sub behaviors in this category and a lack of it is hindering in all types of challenges.

All the other categories are merely seen as helpful behaviors. ‘Lead by example/role model’, ‘discussing’ and ‘ask views/ideas/feedback’ as part of *sounding* behavior are considered helpful behaviors, mostly by middle managers and are related to general helpful behavior (Larsson & Vinberg, 2010; Van der Weide & Wilderom, 2004). Although *change-oriented behavior* was expected

to be helpful for both dealing with the change to agile (Yukl, 2012), as well as working in agile (Bonner, 2010), it has only been considered as helpful in this research to deal with the transformation. Behaviors that contribute to preparing employees for a VUCA world has not been recognized as important helpful behavior, although Horney et al (2014) have identified it as a key factor for agile leadership. All middle managers did indicate that they are intrinsically motivated to deal with change, which is one of the guiding principles of agile leadership (Parker et al., 2015).

Helpful behaviors which are specifically related to the agile way of working are 'build trust' (sounding behavior) (Bonner, 2010; Horney, 2002; Larsson & Vinberg, 2010; Parker et al., 2015; Szabo et al., 2001) and 'expediting collaboration' (collaborative behavior) (Horney, 2002; Parker et al., 2015). Although it is recognized that collaboration in teams is going well, managers should help more with collaboration over teams to prevent silos, which should not have a place in agile (Horney et al., 2010) but which results are showing within the researched organization.

Wishful behaviors that are considered helpful, but need improvement, are 'asking/providing feedback' and 'learning/improving' as part of *evaluate results*. These behaviors are deeply rooted in the Agile principles and are also often discussed in practitioner papers and books on agile and scrum (Appelo, 2011; Hoogveld, 2017; Van Solingen & Van Lanen, 2013) but are almost not reflected in the behavior of middle managers in this phase of the transition. In addition, results on the least discussed category *liberate thinking* shows that 'innovative thinking' is seen only slightly and 'customer focused' is not seen as helpful behaviors. That does not mean that these behaviors are not important for managers in the agile way of working, but this research has found no support that these behaviors are considered helpful in transforming to agile. The theoretical contribution of this research is therefore that helpful behavior is dependent on the phase of which the transformation is in.

In conclusion, this research has made some theoretical contributions. It is argued that there is a difference in how employees should be motivated in transforming towards agile at different phases of the implementation. As a result, behaviors of middle managers should be adjusted to the phase of which the transformation is in, to be experienced as helpful. In addition, it is argued that the original model of Van der Weide and Wilderom (2004) is not applicable to a full extent in an agile context. The model should have only three types of behaviors, since the effective part of *self-defending* behavior is already incorporated in *steering* behavior. Finally, an overview of helpful behaviors in an agile transformation is presented in Table 6.

Table 6

Helpful behaviors in agile transformations

<p>Steering Providing guidance / structure Providing clarity on roles and responsibilities Providing boundaries / freedom</p>	<p>Evaluate results Asking and providing (real-time) Feedback learning / improving</p>
<p>Supporting Facilitating/orchestrating Developing / coaching Being helpful Visiting teams</p>	<p>Sounding (Build) trust Discussing Lead by example / role model Asking for ideas/views/feedback</p>
<p>Change-oriented behaviors Embrace change Inspire exploration</p>	<p>Collaborative behavior Expediting collaboration between people and teams Make collaboration part of culture</p>

5.2. Limitations of the research

Saunders et al. (2016) point out that each research is affected by practical constraints, especially due to the nature of the role of the researcher. This is discussed in the final section of this chapter.

This research has a number of limitations. It has been conducted as a cross-sectional analysis at one point in time. Although it included experiences of respondents at two points in time, this was done in retrospect. In addition, the 16 respondents were all employed by a single Dutch financial institution, which may have resulted in an idiosyncratic interpretation of the agile way or working. In order to counteract this possible firm-specific bias, a theoretical framework based on general effective behavior as well as agile leadership behavior was included.

Moreover, due to the qualitative, exploratory nature of this research, results cannot be presented as evidence to prove whether behaviors are helpful or not. However, the behaviors that have been considered as helpful, add to and are largely supported by general effective middle manager's literature and agile leadership literature and should be tested in future research. Though, the outcome of this research might be useful for organizations that are initiating or are going through a transformation to agile, since it provides a guideline of behaviors for their middle managers to focus upon. In order to improve the knowledge on helpful behavior in agile transformations, it is advised to conduct a large-scale follow-up study based on longitudinal data to examine differences in the effectiveness of leadership behavior in different phases of an implementation. In addition, such a follow-up study should include more participants from different departments and financial institutions to prevent bias.

In future studies, the degree to which cultural and geographic differences affect behaviors needs to be taken into account as well (van Dun et al., 2017). In addition, it is argued that to identify actual helpful behavior, it should be observable and not only based on perceptions in interviews (Behrendt et al., 2017; Van der Weide & Wilderom, 2004; van Dun, 2015). To deal with this limitation, not only middle managers' perceptions have been taken into account, but also their employees who experience the behavior of the middle manager as helpful or hindering.

The role of the researcher in this research is that of one of the target groups, namely the middle managers. This has to be taken into account. Yet extreme care was taken to ensure that there were no ethical issues. The interviewees were ensured of anonymity and the researcher's direct reports did not participate in the study. Due to the ECIT and open questions in the interviews, the study's findings are based on experiences and data of the participants, not on the preferences and preconceptions of the researcher (Shenton, 2004). However, the answers of the interviewees might be biased because of the familiarity with the researcher. In addition, the position of the researcher as MBA-student has influenced the research since the study had to be conducted in a cross-sectional way due to time constraints.

6. Conclusion and managerial implications

Becoming agile is very popular when considering all the management attention for this way of working. However, business transformations towards agile are difficult trajectories, especially for a middle manager having a dual role in these kinds of implementations. The results of this study could be very interesting for future organizations that intend or are starting to transform to agile. Much of the agile leadership literature is focused on how managers in agile should behave. However, managers also play an important role in a transformation. To successfully implement agile, middle managers should therefore take into account not only agile leadership behavior but also steering, supportive and change-oriented behaviors to get to agile. Moreover, recruitment processes for finding effective middle managers in agile should take into account that helpful behaviors in agile are not the same as helpful behaviors to transform to agile. The phase of the implementation an organization is in therefore determines what behavior of the middle manager is deemed helpful. In addition, providing clarity on the role of the middle manager in an agile way of working is not only helpful behavior for the employee but also for the middle manager himself. Middle managers are also employees who are in need for competence, relatedness and autonomy. To motivate them to show helpful behavior, the same motivational models can be applied. That also means that there is a role for senior management, and this should not be known as ‘the chain of yelling’, but rather a chain of support and direction.

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Appendices

A: Principles behind the Agile Manifesto

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity--the art of maximizing the amount of work not done--is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

C: Taxonomy of leadership behavior (Yukl, 2012)

Yukl's (2012) taxonomy of leadership behavior that contains 4 meta-categories and 15 associated component behaviors.

Task-oriented	Clarifying Planning Monitoring operations Problem solving
Relations-oriented	Supporting Developing Recognizing Empowering
Change-oriented	Advocating change Envisioning change Encouraging innovation Facilitating collective learning
External	Networking External monitoring Representing

D: Leadership agility skills (Horney & Pasmore, 2002)

THE AGILE MODEL*		LEADERSHIP AGILITY SKILLS
FOCUSSED	Anticipate Change	VISIONEERING – creating clarity on the core value proposition of the enterprise engineered into what the workforce does every day to produce desired outcomes for all stakeholders
		SENSING – understanding forces of change that influence stakeholder success and creation of early warning systems of impending change that can impact success
		MONITORING – having effective processes for tracking performance and trends to identify patterns that impact the organization
FAST	Generate Confidence	CONNECTING – establishing clear line of sight for all stakeholders with how each can contribute to the enterprise and person success
		ALIGNING – establishing and living the congruence of vision, value, priorities and actions
		ENGAGING – operating with high levels of inclusion and a climate that delivers the discretionary level of effort from all stakeholders
FLEXIBLE	Initiate Action	BIAS FOR ACTION – establishing an execution culture where a sense of urgency around improvement and all stakeholder satisfaction is a basic shared expectation
		DECISION MAKING – creating capability for fast, effective decision-making at all levels
		COLLABORATING – encouraging ideas and gaining insights across organizational boundaries and from multiple stakeholders
FLEXIBLE	Liberate Thinking	BIAS FOR INNOVATION – establishing permission and expectations that innovation is a universal requirement for all stakeholders' participation
		CUSTOMER FOCUS – establishing on-going alignment and understanding of customers to be able to offer business solutions that meet their needs and often identify unrecognized needs
		IDEA DIVERSITY – establishing processes to encourage and secure innovation inputs from all levels and stakeholders in the enterprise
FLEXIBLE	Evaluate Results	CREATING EXPECTATIONS – providing clear and measurable priorities and resources that are aligned for all stakeholders and desired outcomes
		REAL-TIME FEEDBACK – providing timely and accurate feedback on key success measures for all stakeholders
		FACT-BASED MEASUREMENT – using performance metrics grounded in solid information measurement to allow reliable insights and conclusions

E: Four behavioral categories for highly effective middle managers

	<i>Inter-personal relations</i>	<i>Business relations</i>
Exploiting	Self-defending (20%)	Steering (40%)
	Being uninterested	Leading the conversation
	Being nervous	Informing
	Defending own position	Providing direction
	Disagreeing	Delegating
	Providing negative feedback	Verifying
	Threatening	Calling to order
	Insulting	Enforcing
Exploring	Supporting (35%)	Sounding (5%)
	Being relaxed	Listening
	Showing understanding	Asking information
	Providing positive feedback	Asking for ideas
	Encouraging	Discussing
	Stimulating intellectually	Agreeing
	Showing interest in others	Admitting mistakes
	Being helpful	Giving in

By Van der Weide & Wilderom (2004).

I. Results on steering behavior

Enhanced Critical Incident Technique (N=16)					
Behaviors					
	f^a	DE	EL	Example	
Steering	16	8	8		
1 Providing guidance / structure	14	6	8	It is convenient that you get the freedom to fill in your job, but it would be nice if sometimes it is more concrete what I need to do. I need more handles, more clarity, more profundity.	
2 Providing clarity on roles and responsibilities	12	6	6	It is challenging for me that it is not clear to me what the role is of the EL. When do I go to the SM for an issue, and when to the EL?	
3 Providing boundaries / freedom	10	7	3	it makes it easier that the very strict way of working has been let go of and we can look at what is working for us. You need some boundaries to work with, but some things [of agile scrum] aren't just working	
4 Getting and giving information	8	2	6	Communicating and bringing people together is a role that always exist	
5 Providing direction	8	3	5	I could understand the transition to agile because the idea behind it was explained by the EL which gave direction to my work	
6 Delegating	6	3	3	I think it is very good that things like innovation, IT and structure, the long run and strategy actively are delegated towards us. It is the role of the EL to keep us focused on it.	

J. Results on supporting behavior

Enhanced Critical Incident Technique (N=16)					
Behaviors					
	f^a	DE	EL	Example	
Supporting	16	8	8		
1 Facilitating/orchestrating	15	8	7	A manager is much more facilitating when I have a question. Together you will look at where we are, where we want to go and how to accomplish that. But that doesn't involve content.	
2 Developing / coaching	11	6	5	It is helpful when I facilitate in solving the impediment, discuss the issue itself and the process around it, to coach and guide them.	
3 Being helpful	10	4	6	Sometimes you help them by telling them directly how things work or take up impediments and solve them	
4 Visiting teams/visibility	10	4	6	The EL couldn't see that the team wasn't working very well because he doesn't visit our scrum events. That would help I think. Then you can see what is going on instead of relying on what people say to you.	
5 Showing understanding	7	4	3	I would have liked to see more support towards the Agile WoW. It is already quite difficult to get to used to it and it makes it harder when management deviates from it. More understanding would have been better.	
6 Stimulating intellectually/ mirroring	7	2	5	It is helpful that the EL helps me to focus on what adds value and that good is good enough by holding a mirror.	
7 Providing (positive) feedback	5	3	2	I became conscious of the fact that I have difficulties with some aspects of working agile that I need to work on due to the feedback of the EL.	
8 Encouraging	5	1	4	I motivated and encouraged them to just do it, experience it. At a certain moment you need to let go, otherwise they remain dependent on you	
9 Showing interest in others	4	2	2	The EL was interested, but not involved in the content. In bila's he asked how he could help, but he was at distance and did not provide guidance which was fine since our teams are already working in agile for quite a while.	
10 Engaging	0	0	0		

^a f = Absolute frequency, which signifies how many respondents spontaneously mentioned this behavior during the Enhanced Critical Incident Technique part of the 16 interviews.

K. Results on sounding behavior

Enhanced Critical Incident Technique (N=16)				
Behaviors	<i>f^a</i>	DE	EL	Example
Sounding	14	6	8	
1 (Build) trust	10	3	7	To become more agile, I got room for development, trust and responsibility to do as I thought was right. That was very motivating and fun, and that makes you do something in return.
2 Discussing	9	3	6	Starting the conversation helped to deal with the change. Giving trust and encouraging them to have trust. Reply to their concerns.
3 Lead by example / role model	8	3	5	It is really helpful when you have sufficient good examples around you. It is hindering when you think that people can learn it by just going to a training. Not at all. People need to learn together and it helps when there are people around that are role models. That fastens the process.
4 Asking for ideas/views/feedback	8	2	6	Asking, asking, asking and hoping that the team comes up with a solution that is embedded in the team.
5 Relation	7	5	2	It is more convenient to go to my EL instead of my SM since I have a better relation with the EL
6 Listening / sounding	6	3	3	I view my EL as a sounding board. I want to discuss content which I have always done. My EL is very knowledgeable in the field of expertise.
7 Learning culture	3	1	2	As a team you're not being held against by the EL when something is not totally right. We should be able to make mistakes until we make it right in the end.
8 Asking information	1	0	1	When I am in a review, I ask other people besides the local hero questions to give them a platform, not because I want to know the answer really.

L. Results on change-oriented behavior

Enhanced Critical Incident Technique (N=16)				
Behaviors	<i>f^a</i>	DE	EL	Example
Change-oriented behavior	13	6	7	
1 Embrace change	8	2	6	The organization was not yet ready for agile scrum when it was introduced, but that gave freedom to implement it like we wanted to. It was not like with ING top-down, blue implementation. That had as an advantage that we could provide our own direction, and as a disadvantage that we went much quicker than the program and we ran into impediments. That was not perse a bad thing since people had to start thinking themselves and really embraced agile.
2 Inspire exploration	7	2	5	I was asked to perform the role of scrum master when there were no job descriptions and the organisation was not yet transformed. That was really inventing the wheel and a lot of fun to do.
3 Encourage change	2	2	0	I was kind of stimulated to change my role and to be a front runner if I would like that. To start already with the new way of working.
4 Anticipate change	3	2	1	When I applied for a job my manager very clearly stated that it was going to be an exploratory phase with a lot of unclarities and novelty. For me as well as for the team. I thought that was only nice.
5 Initiate action	1	1	0	My manager initiated to work according to agile. We were explained how it worked and then we immediately said, just do it.

M. Results on collaborative behavior

Enhanced Critical Incident Technique (N=16)				
Behaviors	<i>f^a</i>	DE	EL	Example
Collaborative behavior	13	6	7	
1 Expediting collaboration between people and teams	8	3	5	I arranged that the team was sitting together everyday. It is one team, they need each other although they were in separate departments.
2 Make collaboration part of culture	6	3	3	selecting people based on mindset and behavior instead of knowledge to create chemistry between people, because that makes collaboration easier
3 Connecting talent and moving information	5	2	3	the EL is in a good position to keep teams connected and that it is very valuable that information is shared between teams so that you

N. Results on evaluate results

Enhanced Critical Incident Technique (N=16)				
Behaviors	<i>f^a</i>	DE	EL	Example
Evaluate results	11	4	7	
1 Asking and providing (real-time) Feedback	9	2	7	to see if we do the right things, if something is good enough especially now we need to figure it out ourselves. But with more profundity instead of only hearing that we're doing okay
2 learning / improving	8	4	4	When teams think they're ready, that makes me nervous and want to challenge and observe, but when teams are not satisfied I can relax because they will improve themselves
3 Output based	2	1	1	As an EL you need to measure if something did/didn't happen where the team is responsible for

O. Results on liberate thinking

Enhanced Critical Incident Technique (N=16)				
Behaviors	<i>f^a</i>	DE	EL	Example
Liberate thinking	5	2	3	
1 Innovative thinking	4	2	2	paying attention to innovation and ask people to share their ideas so it becomes a habit
2 Customer focused	2	0	2	for servicing the client, I also do things that are not purely IT