

From positioning to professionalizing learning

In search of interventions that support organizations in their change from an individual towards a collective learning culture



FROM POSITIONING TO PROFESSIONALIZING LEARNING

IN SEARCH OF INTERVENTIONS THAT SUPPORT ORGANIZATIONS IN THEIR CHANGE FROM AN INDIVIDUAL TOWARDS A COLLECTIVE LEARNING CULTURE

by

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Hereby, I proudly present my final thesis in fulfilment of the Master of Science Human Resource Development. The past year has been one of ups and downs, yet I never stopped working hard to achieve my goal. Although it is not simple to characterize this year of conducting research and writing my thesis, I would like to make a first attempt. What comes to my mind is the well-known citation by René Descartes; cogito ergo sum, 'I think, therefore I am'. However, within my field of research, I cannot but disagree with the philosopher. Surely, thinking is essential to existence, but it is not its sole prerequisite. Not only did my 'thinking' do the work to complete this research: 'thinking' needs to be put into practice. Without actions to support the 'thinking', it seems nearly futile. How often have the interviewees pointed out that something simply 'has to be done' to have an effect on an organization. And how many times have I been told to start by writing my ideas down. These actions caused the breakthroughs that were necessary to successfully complete this thesis. The efforts I put in writing letters to organizations, paid off: Triamfloat Consultants responded positively to my request for a cooperation. I would like to thank Sabine van Dijken-Stapel, my external supervisor from Triamfloat, for the warm and in-depth conversations. Furthermore, my gratitude goes out to all colleagues at Triamfloat for the genuine interest in my research. I was happy to be able to conduct interviews for my data collection at VolkerWessels. Therefore, I would like to thank Monica de Graaf, employees of the Academy and everyone who participated in my research for your integrity and openness.

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During this research, it became clear that experience is the best teacher and learning is a continuing process of action and reflection. Likewise, organizations change. I have found that changing an organization does not consist only of implementing interventions, but also of innovating, reflecting and improving. So, it is not merely a thinking process, but a combination of thinking and doing. I hope you enjoy reading my master thesis: the product of continuous change, of thoughts and actions, of reflection and improvement.

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Abstract

In the current knowledge economy it is important for organizations to change quickly and continuously to keep up with their opponents and the external environment. Working and learning becomes more intertwined, wherefore it has become important to achieve a culture that supports learning: the collective learning culture. This research aims to contribute to the understanding of continuous organizational change and to the integration of working and learning. We have conducted this research for Triamfloat, a consultancy company in The Netherlands. The goal of this research was to gain insight in important aspects of the change from an individual towards a collective learning culture and interventions that can support this change.

A literature study provided data for important aspects that change during the transition from an individual towards a collective learning culture. It showed that culture consists of assumptions, values and norms that are shared through experiences, knowledge exchange and the interaction between organizational members. An organization should have the ability to bind members together. Culture is therefore not something holistic, but dynamic. The results show three important aspects for knowledge productivity that change during the transition from an individual towards a collective learning culture: leadership, collaboration and communication. 'Leadership' changes from a directive towards a participative style and more responsibility for learning and working is given to the individual. The degree of 'collaboration' changes from little collaboration and knowledge transmitting through formal education in an individual learning culture towards more collaboration and knowledge sharing in a collective learning culture. 'Communication' changes from one-sided and closed communication towards dialogue, openness and transparency. As a result, knowledge becomes explicit and can be spread throughout the organization.

Semi-structured interviews with organizational members of VolkerWessels, a construction concern and an expert meeting with consultants provided data for the question: what interventions could be supportive for the change in leadership, collaboration and communication. The results of this research showed planned change interventions that were mainly focused on the change in leadership, on the individual level and changing systems and procedures. Continuous change interventions supported the change in all three aspects of change. These interventions are aimed at the team level of an organization, reflection, envisioning a future, work-related moments, a positive approach and on team functioning. This research have shown that for organizations it is important to change towards a collective learning culture in order to be knowledge productive and keep up with environmental changes.

In conclusion, cultural change derives from the social interaction and sense-making of organizational members. Interventions to support this change process therefore should fit the development of an organization and its members. This can be found in the continuous approach to change. These interventions change hidden assumptions, improves the social interaction and learning. Planned change interventions are still significant but in a parallel process. Executives and HRD practitioners have to be aware of their approach and the context of the organization when implementing interventions. It is recommendable to take this into account in further research. Moreover, other researchers can study the aspects of a learning culture further, because the possible intertwinement between the different aspects. In addition, the effect of the interventions that derived from this research can be studied.

1. Introduction

In this first chapter we give an introduction to the topic of research. This chapter consists of a short explanation of the chosen concepts and it provides the main research question. Furthermore, we establish the context in which we conducted this research. We conclude with the structure of this thesis.

1.1. Background

The world of organizations changes fast. Due to developments as globalization and technological innovations, organizations have to change continuously (Cummings & Worley, 2009). After the Second World War, knowledge became an important production factor (Drucker, 2001). Economic development was first seen in the enhancement of factors as capital, raw materials and labour, and technological innovations. After the Second World War, knowledge became the distinguishing factor in organizations in providing good products and services. Therefore, there is an increasing demand for knowledge workers (Drucker, 2011). It is necessary to invest in organizational members who are able to collect information, generate new knowledge, disseminate and apply knowledge (Kessels, 2001). This is referred to as knowledge productivity. To become knowledge productive it is important for organizations to invest in their members' development (Van Gent & Van der Zee, 2001) and in an organization's learning capacity (Yolles, 2009).

1.2. Cultural change

For many organizations these developments asks for change from an organization that is characterized by individual learning towards one that is characterized by collective learning (Wierdsma & Swieringa, 2011). As a consequence, the work and learning culture become stronger related (Onstenk, 2004). Hence, the organizational culture has to support learning. Through the development of organizational members and facilitating knowledge sharing, not only the individual learning capacity changes, but also the organizational learning capacity (Senge, 2006). The organization develops and changes because of the development of organizational members. In the desired learning culture individuals seek actively for learning opportunities and continuous improvement (Baars, 2003). In this manner, organizations gain competitive advantage (Nonaka & Takeuchi, 1995; Watkins & Marsick, 1996; Yolles, 2009).

1.3. Interventions

However, research has shown that a lot of attempts of organizational change fail (Boonstra, 2004a; Kotter & Schlesinger, 2008). This may be due to a primary focus on what has to change, i.e. the content, instead of how an organisation should change, i.e. the process (Bennebroek, Gravenhorst, Werkman & Boonstra, 2004). Research has shown that a one-size fits all approach to change decreases motivation to change (Beer, Eisenstat & Spector, 1990). To support organizations in the change of the learning culture, we search for interventions from a continuous change approach. Thus, to be effective, interventions should be custom made (Worren, Ruddle & Moore, 1999). Hence, interventions should fit the process the organization is in. Therefore procedural interventions should be used to support cultural change (Block, 2005). Furthermore, these interventions can change the cultural aspects, wherefore the culture changes from merely individual learning towards one of collective learning.

This research will provide insight in how the learning culture of an organization changes from an individual learning culture towards one of collective learning and what interventions can support this process. Therefore, the central research question of this study is:

What aspects of a learning culture in an organization change in the transition from an individual towards a collective learning culture and what interventions can support this change process?

With regard to this research question, we formulated the following sub questions:

- 1. What aspects of a learning culture change in the transition from an individual towards a collective learning culture?
- 2. What interventions can support the change process from an individual towards a collective learning culture?

1.4. Context of this research

This research is done by order of TriamFloat. Triamfloat is a consultancy agency in the Netherlands that supports organizations in educational questions (TriamFloat website, 2012). Their main activities are design and development, policy and research, and educational and organizational advice. An increasing amount of questions concern organizational change regarding learning and development (TriamFloat consultants, personal communication, 2012). Often TriamFloat consultants aided organizations in positioning their education and learning (see model Appendix 1). The next step is to surpass the positioning and bring an organization towards their desired state concerning learning and development (i.e. professionalizing learning). The consultants are not always aware of the change process an organization is in. This research provides understanding and awareness about cultural change. Moreover, TriamFloat consultants do many design assignments, here for consultants often approach a consultancy project in a planned and systematic way. This research offers insights from literature on a continuous change approach that consultants can help in supporting organizations in a custom made manner.

1.5. Structure of this thesis

This thesis commences with the scientific and practical relevance of this research. Hereafter, we give a description of the research goals and design. After this, the thesis consists out of two parts. The first part consists of an elaboration of the literature study. This part consists of a chapter about the methodology and a chapter in which we explain the results of the literature study. We elaborate upon (learning) culture, cultural change, aspects of change and interventions that can support change. Hereafter, the explanation of the methodology of the interviews and expert meeting follows. After this chapter, we will provide the results of the interviews and expert meeting. Where after, the conclusion and discussion follows. The conclusion consists of an answer to the two formulated sub questions. The discussion is an explanation of limitations and practical implications of this research.

2. Relevance of this research

This chapter consists of a discussion of the practical as well as the scientific relevance.

2.1. Practical relevance

Research has indicated that organizational change often fails (Boonstra, 2004b; Kotter & Schlesinger, 2008). This research can contribute to more understanding about organizational change. This, in turn, can prevent possible future failures with regard to organizational change. This research will not only provide help for TriamFloat consultants, but also to other consultancy agencies and organizations who are dealing with (cultural) change questions. In a knowledge economy, organizations are more dependent upon their members. In order to survive in a competitive environment it is necessary to have a knowledge intensive organization; an organization in which collective learning is standard or strived for. The outcomes of this research can help with choosing a direction and creating a vision regarding professionalization of learning. This is not only beneficial for the development of the members of an organization, but serves the organization in its entirety. In addition, this research contributes to the practical knowledge of HRD practitioners. It not only gives information about which interventions are successful in cultural change, it also gives HRD practitioners more insight in what organizational members value in their daily work and how factors or interventions concerning cultural change can have a positive effect on the professionalization of learning. It gives more understanding about the cultural context in which learning takes place.

2.2. Scientific relevance

Multiple researchers use a model to define culture in a planned way (e.g. Cameron & Ouinn, 2011). This only provides an objective view towards cultural change. The last decade, however, more research is done towards sense making and organizational change (e.g. Weick, 1995; Hatch, 1993), in which there is more attention for change that derives from social interaction. This fits a more continuous approach to change. More additional research is needed to support this continuous approach (Smircich, 1983). This research combines an objective view on cultural change with its characteristics. However, the subjective perspective is also taken into account. By involving multiple perceptions on cultural change, practical examples can be generated. These support quantitative research and vice versa. Moreover, this research contributes to a greater comprehension of the dynamics of organizational change. Where other research focuses on a step-by-step approach (e.g. Kotter & Schlesinger, 2008), in this research there is more attention to the human contribution to the organization's success. This is important because this topic is under exposed. Additionally, much research on cultural change is conducted in the area of organizational science and therefore focuses on management of culture (e.g. Cameron & Quinn, 2011). Other research focuses on learning in the organization. In the latest decade there has been more attention to the congruence of learning and organizational change (Wierdsma & Swieringa, 2011). This research can contribute to the understanding about learning in organizations and how this can be supported through change interventions.

3. Methodology: research goals and design

This chapter contains an explanation of the research methodology. It consists of a description of the research design and research questions.

3.1. Research goals

In this research, we study the change from an individual learning culture towards a collective learning culture. This research provides insight in the approaches of changing a learning culture and the aspects of this change process. Furthermore, we study what interventions are supportive for this change process. Therefore, we have formulated the following main research question:

What aspects of a learning culture in an organization change in the transition from an individual towards a collective learning culture and what interventions can support this change process?

To answer this research question, we have split the main question into two sub questions:

- 1. What aspects of a learning culture change in the transition from an individual towards a collective learning culture?
- 2. What interventions can support the change process from an individual towards a collective learning culture?

The research questions are aimed at the perceptions of organizational members about the supportiveness of interventions and we conduct this research in a changeable context. Therefore, to answer these questions, qualitative research methods are most appropriate. Characteristics of qualitative research are a variable context and research through the perceptions of individuals (Boeije, 2008). In this research we study culture, which is a changeable context that derives from organizational members. Furthermore, the questions describe the change process an organization has been in. Therefore, the research questions are descriptive. For these reasons, this research has a qualitative research design.

3.2. Research design

This research provides insight in organizational change towards a collective learning culture and interventions that support this process from a continuous approach. It has a qualitative design. Qualitative research is useful if the concept is complex (Boeije, 2008). For this research, we examined the change process from an individual to a collective learning culture in an organizational context. Culture depends heavily on the context, wherefore quantitative research would not be sufficient (Silverman, 2006). Besides this, a qualitative research design enables the researcher to investigate cultural change from a continuous approach. In qualitative research, information derives from the perceptions of organizational members (Silverman, 2006; Boeije, 2008). In this research we conducted interviews. In this way, the research took the sense making and underlying processes of organizational members into account. This research is furthermore descriptive (Leary, 2008), in terms of describing the behaviour and perceptions of organizational members regarding cultural change. Moreover, this research is exploratory (Schwab, 2005). It can be a preliminary inquiry to experiment with interventions that are suitable in cultural change processes. This research strives for giving new insights in organizational practice regarding learning and means for developing interventions that support this process.

The goal of this research is achieved through a literature study, in-depth interviews and an expert meeting. The use of methodological triangulation (using multiple methods for obtaining data), supports internal validity. As can be seen in Figure 4, the literature study is conducted throughout the whole research process. It provided a theoretical framework for the other research methods. For example, it provided information for establishing a topic list for the interviews. The interviews served as an addition to the literature study in a way that it provided context driven data. After the interviews, we conducted an expert meeting. The goal of this meeting was to validate the interview results by experts. Through describing the context of research and by using the same codes for analysing the interviews as well as the outcomes of the expert meeting, both similarities and differences in the data were exposed (Van Burg, 2011). In this way, this research provided for convergent as well as

divergent validity. Furthermore the expert meeting served a practical goal, in the sense that it was a learning experience for the participants. Part 1 of this research consists of the literature study and part 2 consists of the interviews and expert meeting. Figure 1 illustrates the three research methods in time order.

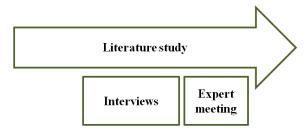


Figure 1. Research methods.

The reliability of this research is ensured by accurately explaining the research procedure in a report (Boeije, 2008), by carefully describing the analysis process of the research and by being as transparent as possible (Riessman, 1993). This gives the opportunity for other researchers to replicate this research.

4. Literature study

This chapter consists of an explanation of part 1 of this research. It provides an explanation of the methodology and the outcomes of the literature study.

4.1. Methodology

The literature study is conducted to answer the first sub question: 'What aspects of a learning culture change in the transition from an individual towards a collective learning culture?'. It also gave a theoretical base to answer the second sub question: 'What interventions can support the change process from an individual towards a collective learning culture?'. The literature study ensures how the data is going to be interpreted (Silverman, 2006). Furthermore, the framework has served as a base for the topic list of the interviews. Literature is found in multiple databases, for example Web of Science, Scopus and PsycInfo. The literature search was done with the so-called snowball method (Baarda, De Goede & Teunissen, 2005). With this inductive method, we attained focus on the research topic. Possible search topics are listed in Table 1. These hits were used separately as well as combined. For example the topic 'collaboration' was combined with the topic 'collective learning'.

Table 1

Overview of search topics

Main topics	Sub topics				
Culture	Organizational culture				
	Learning culture				
	Learning climate				
	Leadership	Participative leadership			
	_	Steering/ directive leadership			
		Management			
	Collaboration	and learning			
		Knowledge sharing			
	Communication	Dialogue			
		Open and transparent			
Change	Organizational change	•			
•	Change and learning				
	Planned change				
	Continuous change				
Learning	Professionalizing learning				
•	Individual learning				
	Organizational learning				
	Collective learning				
	Formal learning				
	Workplace related learning				
Interventions	Change interventions				
	Learning interventions				
	Interactive interventions				
	Human process interventions				
	Interventions per culture aspect				

4.2. Results

In this section, we elaborate upon the outcomes of the literature study, which have provided results to answer the first sub question: 'What aspects of a learning culture change in the transition from an individual towards a collective learning culture?'. This section provides an elaboration of change in a learning culture.

4.2.1. Definition of culture

Different definitions exist about organizational culture (Schein, 1985; Alvesson & Sveningsson, 2008; Martin, 2004; Cummings & Worley, 2009). In literature two approaches towards culture can be distinguished. The first approach views culture as an entity and the second approach views culture as a

fragmentised collection of norms, values and hidden assumptions. This paragraph contains an elaboration of these two approaches.

In the first approach, culture can be seen as uniform and holistic and as a representation of an organization (Martin, 2004; Martin, Frost & O'Neill, 2004), which can be constructed (Cummings & Worley, 2009; Schein, 1985). Schein (1985) for example defines culture as "the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to these problems" (p. 9). Cummings and Worley (2009) describe this type of culture as a pattern of values, norms and expectations. Moreover, they describe that a holistic culture is shaped by "...the taken-for-granted and shared assumptions that people make about how work has to be done and evaluated and how employees relate to one another and to significant others, such as suppliers, customers, and government agencies" (p. 747). Both definitions share the meaning that culture is an exact representation of the organization. Organizations with a holistic culture are less able to meet development and innovation (Cummings & Worley, 2009). These organizations are less equipped to adapt to changes and new structures.

The second approach to culture is less holistic. Culture can be seen as a fragmentised collection of attitudes, values and mental models, which influence and lead the behaviour of organizational members (Martin, 2004; Martin et al., 2004, Alvesson & Sveningsson, 2008). As opposed to an exact visible representation of an organization, culture is about the underlying attitudes and assumptions of organizational members that arise, which are called the 'mental models': "mental phenomena such as how individuals within a particular group think about and value the reality in similar ways and how this thinking and valuing is different from that of people in different groups" (Alvesson & Sveningsson, 2008, p. 36). Groups can be determined as teams, departments or even whole organizations. Mental models are the deeper underlying thoughts of organizational members about a certain situation (Schein, 1990). Organizational members are often not aware of them. Norms and values are adopted unwritten rules and shared thoughts about what organizational members find important. These values and mental models are expressed in a culture's artefacts. These can be defined as physical characteristics of culture, for example the building and clothing (Schein, 1990). Artefacts lay on the most concrete level of culture. Edgar Schein (1990) developed a model in which he distinguishes these three levels of culture. With each higher level, the concept of culture becomes more concrete. The three levels are illustrated in Figure 2.

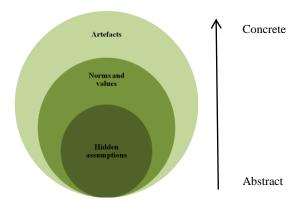


Figure 2. Levels of culture.

Although values and mental models of organizational members can differ, it is important to discover a pattern in all the values of organizational members to create an image of the organization to which organizational members feel committed (Martin, 2004). In this manner, organizational members together make sense of the organization's reality (Weick, 1995). Harris (1994) concurs with this and adds: "...it requires that the content and relative salience of these schemas be similar across organizational members" (p. 313). Organizational members shape organizational culture. Culture is formed through social interaction and the processes that derive from these interactions (Martin, 2004; Van Nistelrooij, 1999).

Taking the above into consideration, we have constructed the following definition of culture that suits the purpose of this research: culture is the pattern of values, norms and assumptions (mental models) that are shaped by shared experiences and meaning that organizational members give to reality (e.g. organization, work) and which are expressed in artefacts.

In the next section we will further elaborate upon the learning culture, where after we will explain aspects that are important to change a learning culture.

4.2.2. Learning culture

In this research we look at the change of the learning culture of an organization. For organizations it becomes more essential to establish a culture in which individuals learn actively and in this way improve the organization (Baars, 2003). Working and learning become more integrated, where for the culture of an organization changes. To establish an organization that is innovative and adapts quickly, it is important to establish a culture that supports collective learning (Watkins & Marsick, 1996). From literature, two states of a learning culture can be distinguished. Table 2 shows the differences between these two states. In the first state, culture is characterized by individual learning. In the desired state culture is characterized by collective learning. In this paragraph we will further describe these two types of learning culture

Table 2 *Overview of differences between an individual and a collective learning culture.*

	Type of culture	Individual learning culture	Collective learning culture		
Values					
General		Formal education	Formal and informal learning		
Leadership		Directive style	Participative style		
		Organizational responsibility	Individual responsibility		
Collaboration		Knowledge transmitting	Knowledge sharing		
		Little collaboration	Much collaboration		
		Job-specific skills	Flexible job skills		
Communication		One-sided communication	Dialogue		
		Closed communication	Open and transparent		

In the first state, learning in the organization consists of merely formal education and is jobspecific (Verdonschot & Van Bommel, 2004). The culture of an organization in this state is characterized by individual learning. Values such as job-specific skills, the transmission of knowledge and an organization's responsibility for learning can be applied to an individual learning culture (Baars, 2003). In this type of culture, individual organizational members gain knowledge to increase their job performance. Furthermore, individual organizational members learn in a classroom setting, where a teacher transmits knowledge. Learning is not embedded in work, but is seen as something that happens outside work. Consequently, an individual organizational member gains knowledge, but does not share this with other organizational members. Therefore this knowledge stays implicit (Nonaka & Takeuchi, 1995) and the behaviour of other organizational members is not affected (Wierdsma & Swieringa, 2011). Moreover, in this type of culture individual members do not feel responsible for their own learning process (Baars, 2003). The responsibility for learning lies with management or at the organizational level. Consequently, this learning culture does not stimulate (pro-)active learning (Baars, 2003). However, learning and working becomes more integrated, wherefore the organizational culture has to support the development of their organizational members and learning in order to enhance the organization's learning capacity (Senge, 2006).

The desired state of an organization is an organization in which members learn collectively (Wierdsma & Swieringa, 2011). Values that are important in such a learning culture are flexible job skills, knowledge sharing and the individual responsibility for learning (Baars, 2003). These values cause organizational members to actively search for learning opportunities. Moreover, through knowledge sharing and interaction, values of other organizational members can be changed (Wierdsma & Swieringa, 2011). This causes for the whole organization to change and to improve, instead of only an individual member. In a collective learning culture, learning is part of work. Learning happens consciously or unconsciously during work practice (Onstenk, 2004). This does not mean that no courses or training are followed, but they exist in connection to work-related situations

or on the workplace itself (De Grip & Sanders, 2001). In a collective learning culture, individual members feel responsible for their own learning process. Moreover, because organizational members gain knowledge at work, they learn broader than their own job specifications. This causes that individuals are more flexible and employable. Consequently, an organization gains competitive advantage that is needed to survive in a knowledge economy (Yolles, 2009).

4.2.3. Important aspects

This paragraph contains an elaboration upon aspects of culture. It ends with a short summary of this paragraph.

Culture is expressed in different aspects. Authors distinguish several aspects of an organizational culture, i.e. leadership, communication, collaboration, rewards and appreciation, traditions and habits (e.g. Van Nistelrooij, 1999; Onstenk, 2004). Although rewards, appreciation, traditions and habits are important in an organizational culture, literature shows that with regard to learning, the aspects leadership, collaboration and communication, stand out. Leadership is the first significant aspect, for the reason that Onstenk (2004) mentions support for innovation and Baars (2003) the change in the responsibility for learning and leadership style as important values for the change in a learning culture. As a result the aspect 'leadership' is about the support a leader should give to organizational members to learn and share knowledge. The second important aspect is collaboration. This aspect consists of collaboration and participation (Watkins & Marsick, 1996; Onstenk, 2004), and the change from knowledge transmitting to knowledge sharing (Baars, 2003). Wierdsma and Swieringa (2011) add the importance of flexible organizational boundaries for knowledge sharing. Communication is another important aspect in establishing a collective learning culture. This aspect contains the values inquiry, dialogue (Watkins, 1996; Onstenk, 2004) and open and transparent communication (Baars, 2003; De Jong, 2011). In short, change in a learning culture occurs on three aspects: leadership, collaboration and communication.

Leadership

The executive plays a highly significant role with regard to cultural change in an organization. Towards a collective learning culture, leadership changes from a directive to a more participative style. This is much in line with what Kotter (1990) describes as management and leadership. Managers are executives who have a directive style, whereas leaders have a more participative style. The role of an executive changes with the change of a learning culture of an organization.

In an individual learning culture, organizational members put the responsibility for learning at the organization's management (Baars, 2003). The manager takes control over the development of organizational members. Learning is directed top down and therefore a directive leadership style is typical for an individual learning culture. A directive leadership style consists of planning activities, controlling the budget, organizing individuals and pointing out solutions (Kotter, 1990). The directive style is focused on the system, rather than on individual members. As such, it has a command-and-control orientation (Ellinger, Watkins & Bostrom, 1999). However, research has shown that change is sometimes only initiated by line managers and other individual organizational members (Palmer, Dunford & Akin, 2006).

To increase the learning capacity of an organization, a participative leadership style is effective over a directive one (Ellinger et al., 1999). In a collective learning culture, the individual organizational members are responsible for their own learning process (Baars, 2003). Consequently, a leader is there to support the organizational members and commit them to organizational goals (Baars, 2003; Fousert, 2005; Alvesson & Sveningsson, 2008). By giving back the responsibility, organizational members feel committed to their work and actively seek learning opportunities and solutions in their work. A participative leadership style is aimed at developing organizational members and facilitating learning (Ellinger et al., 1999). Additionally, a leader brings organizational members together in order for them to learn from each other. It is therefore significant that one is conscious of the various assumptions and relationships between organizational members (Alvesson & Sveningsson, 2008). If leaders recognize networks, they can stimulate knowledge sharing in those networks. In other

words, when leaders facilitate learning, this can create continuous learning opportunities (Watkins & Marsick, 1996). In this manner, an organization can easily adapt to change.

Collaboration

Collaboration is significant to establish a learning culture in which learning is part of work. It is an important aspect to stimulate knowledge sharing, learning from each other and broader job skills. In an individual learning culture there is little collaboration. In this culture learning only consists of formal education (Wierdsma & Swieringa, 2011). Through formal education, knowledge is transmitted (Baars, 2003). Organizational members gain knowledge, but do not share this knowledge with others, wherefore it stays implicit (Nonaka & Takeuchi, 1995).

However, this changes towards a collective learning culture. In such a learning culture knowledge sharing is an important value (Baars, 2003), just as team learning (Watkins & Marsick, 1996). Collaboration between organizational members causes knowledge sharing. Hereby, knowledge becomes explicit and is spread throughout an organization. In a collective learning culture, an organization has flexible boundaries, resulting in better collaboration (Wierdsma & Swieringa, 2011; Onstenk, 2004). In this way, organizational members can easily share knowledge and learn from each other. Consequently, organizational members are not restricted to their own job specific working environment, but they are able to develop broader, because they work together with other disciplines. Therefore the collective learning capacity of an organization increases. Learning happens throughout the organization, wherefore the whole organization continuously changes.

Communication

Communication consists of the interaction between managers and employees, and organizational members amongst each other. Communication is an important aspect in a learning culture, because change occurs in the communication process (Ford & Ford, 1995).

One-sided communication characterizes an individual learning culture. Knowledge is transmitted; a teacher delegates knowledge (Baars, 2003). As previous noted, knowledge stays implicit (Nonaka & Takeuchi, 1995) and one is not open and transparent.

In a collective learning culture 'open and transparent communication' is an important value. This triggers organizational members to reflect on their actions (Argyris, 2004). In this way, organizational members learn from their actions and improve their skills. Moreover, open and transparent communication helps to make assumptions and knowledge explicit (Nonaka & Takeuchi, 1995). Dialogue can cause for co-creation (Wierdsma & Swieringa, 2011). In this manner, knowledge is collectively created and shared. In a collective learning culture, an organization facilitates and stimulates inquiring and feedback among organizational members (Watkins & Marsick, 1996). In this manner, feedback makes communication about the current situation and the desired state possible. Organizational members can reflect on their work practice and improve it, which is an important aspect for an innovative culture (Onstenk, 2004).

Short summary

This section described the three overarching aspects of establishing a collective learning culture: leadership, collaboration and communication. The aspect leadership changes from directive towards participative. Where an executive first had to command and control, in the desired state an executive motivates and supports organizational members in their work and development. Furthermore, the responsibility for learning lies with the individual organizational members. Additionally, collaboration is important in establishing a collective learning culture. The aspect collaboration is important for knowledge sharing and collective learning. In addition, collaboration supports interaction between organizational members, which is important in continuous change. The last aspect communication is, in the first state, regarded as one-sided communication, where in the desired state inquiry, dialogue, openness and transparency is aspired.

4.2.4. Change approach

Research has shown that two distinct approaches towards change processes can be adopted: a planned change approach and a continuous change approach. In this paragraph we will elaborate upon these two change approaches.

Planned change approach

The history of organizational change can be brought back to the beginning of the 20th century. Due to the emergence of machines, production went faster and more efficiently and less manpower was needed (Swanson & Holton, 2009). This caused a major turnaround in the way of thinking about work and organizations. Kurt Lewin was the first researcher who developed a model for organizational change. In this model, Lewin defines three subsequent phases in organizational change: unfreezing, moving and refreezing (1951). In the first phase, the organization gets out of its equilibrium. This disequilibrium is often caused by changes in the external environment, e.g. competition. In the second phase, moving, the organization shifts to a new state of equilibrium. In the last phase, refreezing, the organization is stabilized and the new way of working is implemented in the new state. The phases are illustrated in Figure 3.



Figure 3. Lewin's model.

Lewinian change can be seen as a staged process in which organizations move from one equilibrium state to another (Weick & Quinn, 1999). Lewin's model of planned change inspired other researchers, in the way that change can be approached as a staged process (e.g. Weick & Quinn, 1999; Kotter, 2007). Weick and Quinn (1999) suggest that a planned change process can be seen as linear and progressive; with each phase or step an organization gets closer to its desired state. The change process is carefully planned; goals are set, the end result is fixed and measurable (Swanson & Holton, 2009; Wierdsma & Swieringa, 2011). In such an approach there is no room for flexibility or adaptation. The steps are already known. The planned change approach is aimed at changing the hard dimensions of organizations, e.g. structure and resources (Weick & Quinn, 1999; Wierdsma & Swieringa, 2011). The goals of this approach are in line with this. The first goal is about enhancing the effectiveness of the whole organization and its economic and competitive advantage (Beer & Nohria, 2000; Wierdsma & Swieringa, 2011). Other researchers indicate the second goal of planned change. This goal is located in enhancing the functioning of the entire organizational system (Cummings & Worley, 2009; Weick & Quinn, 1999).

Continuous change approach

From 1960 onwards more attention was directed to the need of changing the soft dimensions of organizations, e.g. culture and management style (Cummings & Worley, 2009). From this view, change is seen as a continuous process. Other than in a planned change approach, the process itself is the goal of change; an organization is constantly adjusted (Weick & Quinn, 1999; Beer & Nohria, 2000; Cummings & Worley, 2009). An organization can adapt to its environment and is more flexible. In this manner, the process of rebalancing and continuous adjustments creates sustainable change (Weick & Quinn, 1999). The change process is an integrated part of an organization (Boonstra, 2000). It derives from the interaction between an organization and its environment, and the exchange of knowledge between organizational members (Wierdsma & Swieringa, 2011). The continuous change approach is one that sees change as something that is caused by organizational members. Organizational members give different meanings to situations, successes and failures in the organization and its environment (Weick, 1995; Wierdsma & Swieringa, 2011). As Weick (1995) puts it: "Sense making is never solitary because what a person does internally is contingent on others" (p. 40). In this manner, an organization changes through the shared learning experiences of organizational members. To change a culture, it is important to find a pattern in these different meanings that

organizational members give to their work environment and the processes underneath the social interaction between organizational members (Martin, 2004; Van Nistelrooij, 1999; Harris, 1994). Establishing a collective learning culture is one of co-creation and organizational members jointly make sense of the culture (Weick, 1995; Bergenhenegouwen, Mooijman & Tillema, 2010). Changing a learning culture is a dynamic and joint process from organizational members. Therefore, a continuous approach to change can support an organization in changing a learning culture towards a collective learning culture.

Short summary

Earlier, we defined culture as the pattern of values, norms and assumptions (mental models) that are shaped by shared experiences and meaning that organizational members give to reality (e.g. organization, work) and which are expressed in artefacts. This pattern changes due to new insights of others, social contact, and knowledge sharing (Alvesson & Sveningsson, 2008). Organizational members look for others who share their meaning. Culture changes through the jointly sense making of organizational members about their work and the organization. The reality that organizational members create, is constantly moving and not a uniform entity. Because this change is not a linear or static process, a continuous approach fits the organizational change from an individual learning culture towards a collective learning culture. To support an organization in this change, interventions have to be chosen that fit the continuous change approach.

4.2.5. Interventions

A learning culture of an organization changes through the shared sense making of organizational members. The previous paragraph ended with the conclusion, that one should adopt a continuous change approach in order to change a learning culture. Here for, interventions that fit this approach could help in establishing a collective learning culture. This chapter starts with a definition of interventions. Hereafter, we explicate about general interventions that fit the change towards a collective learning culture from a continuous approach. It closes off with examples of specific interventions that support change in leadership, collaboration and communication.

Definition

Implementing interventions suggests planned change. From this perspective, an intervention is defined as an end result (Block, 2005). As a result, interventions and continuous cultural change sound contradictory. In this research however, we look at interventions that can support continuous cultural change. Therefore we take the approach of interventions as an activity to reach a procedural goal (Block, 2005). De Caluwé and Vermaak (2006) define interventions as all activities that prove to increase efficiency of an organization. Although these are planned actions, interventions are not forced. Interventions for cultural change ask for free choice and ownership of an organizational member or group (Cummings & Worley, 2009). For this research we composed the following definition: An intervention is an action or attitude that can be implemented to reach a procedural goal and that shapes cultural change in a way that fits the development of organizational members and the organization.

General interventions from a continuous change approach

Cultural change derives from the interaction and sense making of organizational members (Martin, 2004). Interventions that support cultural change concentrate on the micro level of the organization: it focuses on changing organizational members in order to change a whole organization (Worren, Ruddle & Moore, 1999). These interventions are named human process interventions (Cummings & Worley, 2009), interactive (De Caluwé & Vermaak, 2006) or learning interventions (Boonstra, 2010). This kind of interventions focus on facilitating the interaction between organizational members, departments or other groups to change an organizational culture and to bring organizational members together (Boonstra, 2010; Cummings & Worley, 2009). This encourages the organizational members to exchange ideas and knowledge, creating a shared vision, to commit actions, seek improvement and learn better and new ways of working. In this way a collective learning culture can be established. Examples of interventions that contribute to this change and can make implicit values and knowledge explicit, are action learning, the 4D cycle and search conferences. All three interventions are action-

oriented. The intervention action learning and the 4D cycle are about the cyclical process of action, reflection and the determination of a (collective) vision (Cusins, 1995; Tjepkema & Verheijen, 2009). The cyclical process causes for continuous improvement and innovation. Search conferences focus more on determining the future of the organization (De Caluwé & Vermaak, 2006). This can contribute to shared sense making.

Action learning

Action learning is an intervention that fits the continuous approach. It is focused action and reflection. This causes for an on-going circle of learning experiences. This is expressed in the following definition: "Action learning involves interrelated actions that comprise an iterative learning process in which participants learn to reflect on their values in changing, organizing, and learning" (Boonstra, 2004, p. 461). Action learning is an intervention that is focused on learning-by-doing. It has four components: experiential learning (learning from experiences through reflection), relevant knowledge acquisition, creative problem-solving and support through group learning (Cusins, 1995). Furthermore, it can support establishing a collective learning culture, because it encourages knowledge sharing and active thinking about a work-related topic. It is an intervention that focuses on developing and working with a real-life problem or situation (Cusins, 1995). This can be done in small groups where a case is discussed (Argyris, 2004). Organizational members reflect on the case in order to learn from it. In this manner, organizational members can gain new insights and share these with others. This can cause for change towards a collective learning culture.

4D Cycle

The 4D cycle is an intervention that is based on Appreciative Inquiry. Appreciative Inquiry is a larger framework for organizational change. Appreciative Inquiry focuses on solutions for organizational problems and organizational change from an appreciative and positive approach (Tjepkema & Verheijen, 2009). Hence, an important aspect of the 4D cycle is that it focuses on the values of the organizational members. This fits the continuous approach to change (Weick, 1995; Wierdsma & Swieringa, 2011). Also the intervention is focused on solutions, rather than on problems (Tjepkema & Verheijen, 2009). With this intervention participants learn to improvise and together they look for ways to come closer to the desired situation. This stimulates knowledge sharing and shared learning experiences that are important in establishing a collective learning culture (Wierdsma & Swieringa, 2011) and fit the continuous approach. Furthermore, innovation and creativity are put forward. Appreciative inquiry (Tjepkema & Verheijen, 2009) consists of four steps (4D). In the first step 'Discover', the current situation is researched. The focus is on what is already successful in the organization. In the second step, 'Dream', organizational members draft a vision. On the base of this vision actions are plotted in the third step 'Design'. In the fourth step, 'Destiny', the ideas are put into action and an experiment follows. These different steps are continuously repeated and adjusted. Therefore this intervention is suitable to stimulate continuous change. The four steps are illustrated in Figure 4.

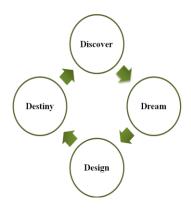


Figure 4. 4D cycle.

Search conferences

Search conferences fit the continuous approach to change in the way that this intervention is based on the experiences and motives of the participants (De Caluwé & Vermaak, 2006). A search conference has its focal point on envisioning the organizational future. A concrete plan is made in which activities are written down that could facilitate change towards the desired situation (Levin, 2004). This is done in multiday meetings with as many organizational members as possible (De Caluwé & Vermaak, 2006). Search conferences are therefore also named 'visioning' or 'futuring' conferences. At the end of a search conference there is space for knowledge exchange to give the conference a follow up. This provides for knowledge sharing and encourages collective learning. In addition, this intervention reaches values and basic assumptions, which helps to change an organizational culture (Boonstra, 2010).

We have now discussed three interventions that can support cultural change in general. The next paragraphs contain interventions that suit the specific aspects that are important to change a learning culture. The first paragraph consists of an elaboration about interventions that support the change of leadership. The second paragraph contains interventions that could support change in the degree of collaboration and the last paragraph contains interventions that could support change in the degree of communication.

Interventions leadership

Leadership is an important aspect of organizational culture. A more participative leadership style contributes to a collective learning culture (Fousert, 2005). For that reason, it can be noticed that interventions should be aimed at reflection on one's leadership style and adjust this towards a more participative style.

Feedback

Feedback and mirroring are important interventions to make knowledge explicit and to adjust behaviour and is therefore a development oriented intervention (De Caluwé & Vermaak, 2006). Through feedback, leadership styles are continuously reconsidered and mirrored. Feedback is therefore a process intervention (Block, 2005). Through this intervention, the functioning of executives, their behaviour or leadership style and the effects of that behaviour become visible. Consequently, feedback and mirroring helps executives to be conscious of the effects of their leadership style and adjust their behaviour towards a more participative leadership style.

Coaching

Interventions such as feedback and coaching, facilitate consciousness. Coaching is an intervention that is aimed at paying attention to individual learning questions of organizational members (De Caluwé & Vermaak, 2006). With regard to leadership, consciousness and insight into one's leadership style and behaviour is increased and adjusted. With this intervention it is important that the coach does not provide complete answers to the coachee's learning questions. The coachee has to be the owner of his learning process. For that reason coaching is a solution based intervention. This is in line with the intervention, 4D cycle (see Figure 3).

Interventions collaboration

The degree of collaboration depends on the extent of which organizational members share knowledge and experiences (Van Nistelrooij, 1999; Alvesson & Sveningsson, 2008). Interventions to enhance collaboration are therefore focused on these aspects. Interventions that stimulates more collaboration are sharing learning experiences, teambuilding, process consultation, communities of practice and workshops.

Sharing learning experiences

An intervention that is focused around a positive approach, such as the 4D cycle, is sharing successful learning experiences (Boonstra, 2010). Individuals share positive learning experiences through success stories. This can support enthusiasm among organizational members to learn and in this manner, knowledge can be spread throughout the organization. Consequently, this can infect other

organizational members. On the long term this can provide for more collaboration among organizational members to work on continuous renewal and improvement. In this manner, new values and work practices can be developed.

Teambuilding

Teambuilding is an intervention that focuses specifically on improving collaboration and team functioning among organizational members (Cummings & Worley, 2009). Its focal point is on interpersonal skills. The function of teambuilding that fits this research are activities to change behaviour of the whole group, but also enhance the relations within the team and with the rest of the organization (De Caluwé & Vermaak, 2006). Through interaction and joint activities, the degree of collaboration is enhanced. Boonstra (2004) concludes that teambuilding is an intervention that can be placed in between a planned and continuous approach to change. However, in this research the focus is on the continuous approach. De Caluwé and Vermaak (2006) and Cummings and Worley (2009) confirm this developmental approach.

Process consultation

Another intervention that is aimed at interpersonal skills is process consultation. This is an intervention that specifically discusses relations and social dynamics in a group (Cummings & Worley, 2009). This intervention diagnoses team functioning. Here after solutions are sought together with organizational members for future problems or similar situations. With a method as dialogue, theories in use can be examined and espoused theories can be triggered (Cummings & Worley, 2009; Argyris, 2004). A diagnosis of the group can help to improve group dynamics, collaboration and communication.

Communities of practice

The intervention 'communities of practice' is based on action learning. Communities of practice are specific learning environments in which technical knowledge is developed and shared (Boonstra, 2010). In this way, participants give meaning to their work practice. Because of the alternation between action and reflection, organizational members learn from their work. The exchange of knowledge is responsible for the increase of the learning capacity of organizations. Communities of practice are often organized around a knowledge domain and are fixed entities (Boonstra, 2010). Organizational members actively work on the same subject, this enhances collaboration between members of the community.

Workshops

In workshops, organizational members learn in cooperation with individuals on the workplace (Boonstra, 2010). This provides for knowledge sharing in a learning environment that does not compete with the workplace. However, it is also important to reflect on your work and the solutions that have resulted from your work, in order to make theories in use explicit (Argyris, 2004). Therefore this intervention should be combined with action based intervention, such as action learning.

Interventions communication

Interventions that support communication are closely related with collaboration. These two aspects distinct from each other in the way that interventions that enhances the degree of communication, have their focal point on interaction, dialogue and jointly sense making (Wierdsma & Swieringa, 2011). The interventions mentioned for increasing the degree of collaboration can also be suitable for enhancing dialogue and interaction, but it depends on the focal point of the intervention.

Peer review groups

In the case of changing leadership, coaching was an intervention on the individual level of an organization. On team or organizational level coaching takes more the shape of peer review groups (De Caluwé & Vermaak, 2006). In these groups, participants look at each others' behaviour in order to enhance their professional acting. The goal of this peer review is to look at behaviour from different angles and to search for underlying patterns in behaviour. In this way, a solution for a problem or situation can be found. It is about enhancing the interaction between organizational members and the

organization itself. Previously in this chapter, it is stated that change derives from the interaction between organizational members (Weick, 1995). For that reason, a peer review group is an appropriate intervention for changing communication.

Dialogue

Another intervention that facilitates change in communication is dialogue. This intervention helps in constituting new interactions and the discovery of new ideas (Boonstra, 2004). It is about sharing experiences, doing new experiments and searching for the desired situation. In this way, interaction and dialogue can cause for new realities and notions. Hence, new values and assumptions can be tapped.

Short summary

In this section we have discussed various interventions. These are examples of interventions that can support cultural change from a continuous change approach. Features that these interventions have in common are togetherness, consciousness, reflection, enhancing work practice, knowledge exchange and learning from and with others. Some interventions are more focused on positive experiences, where others have their focal point on sense making and interpersonal skills. From our view, cultural change can be facilitated with different human process interventions and from micro to macro level. The interventions, mentioned in this section, are often closely related. As a result, these interventions will not always be used separately (Boonstra, 2010). Part of this research is to find out what interventions are suitable for letting an organizational culture grow from an individual towards a collective learning culture in a continuous manner.

5. Interviews and expert meeting

This chapter commences with an explanation of the methodology of the interviews and expert meeting. Furthermore, we will give the results of the interviews and expert meeting.

5.1. Methodology

This section consists of an elaboration on the research methods. We give an explanation of the interviews that we conducted for this research and an explanation of the set-up of the expert meeting.

5.1.1. Interviews

The second research method we have used, are interviews. The main goal of the interviews was to find an answer on the second sub question: 'What interventions can support the change process from an individual towards a collective learning culture?'. The interviews provided insight in cultural change through the perceptions of organizational members. In addition, it provided examples of supportive interventions for changing an organization from an individual learning culture towards a collective learning culture. In this paragraph, we will elaborate more on the context in which the interviews took place. Furthermore, it offers information about the participants and the interview instrument.

Selection of an organization

To select an organization, we have chosen an organization purposively (Leary, 2008). Preconceived criteria ensured that the respondents were from the right population and provided the information that was needed (Silverman, 2008):

- O The selected organization has grown from an individual towards a more collective learning culture, in order for the interviews to provide information about the context of the change and to study interventions that have proven to be supportive.
- o Learning and education is integrated in the organization's strategy. This implies the importance that an organization gives to learning and development.
- o In the organization there is a distinct department for learning and development or there is an educational consultant/manager. This criterion is significant in the way that interventions should be distinguished, which (line) managers have implemented or educational advisors/department.
- There is a sufficient amount of individuals who want to cooperate (n>15). In this manner, interviews can be replicated and a pattern can be discovered in the data. This enhances the reliability of this research (Van Burg, 2011).

Based on these criteria, we have approached multiple organizations. We did this on the base of an interview with the educational manager of the concerning organizations, the book 'Corporate Universities' (Rademakers, 2012) and the criteria. Eventually, we have selected the organization VolkerWessels. In the next section, we will further elaborate upon this organization.

Organizational context

VolkerWessels is an organization that is specialized in construction. It is a concern that consists of 120 independently operating companies with a total of 16.600 employees. VolkerWessels is situated in The Netherlands, Belgium and the United Kingdom. This research has been focusing on the companies of VolkerWessels in the Netherlands. The different companies operate in different disciplines: from housing to utility and from road construction to engineering. All different disciplines are clustered into three different areas, namely Housing and Real estate, Infrastructure, and Energy & Telecom. Table 3 provides an overview of the number of companies we have visited, divided into area and discipline. Because of the different disciplines, employees often have to work on large scale projects. VolkerWessels's mission is to further strengthen the organization's strategy in a safe, integer and durable manner. This is what they call 'operational excellence'.

Table 3
Number of companies per area

Area	Number of companies	Discipline
Housing & Real Estate	5	Housing & Real Estate
		Construction Supply
		Advice & Services
Infrastructure	6	Road Construction
		Rail Construction
		Road and Rail Technology
Energy & Telecom	1	Networking (Telecom)

The economic crisis and its implications

As a result of the economic crises that started in September of 2008 (CBS, 2012), the construction sector is under pressure. Construction work is building for the long term. Because there is almost no trust in the return on investment, the growth in the construction sector has stagnated. This asks for different ways of working. At VolkerWessels this is visible in the increase of integrated projects. At first, projects consisted of only construction work, but since the economic crises, more attention goes to all aspects of a project (e.g. project management, design, finance). This asks different skills attitudes from organizational members. Therefore, education and learning become of more significance. Executives have an important role in this development. Therefore, the VolkerWessels Academy has its focus on the managerial level of the organization.

Selection of participants

The participants for the interviews were selected with the help of the VolkerWessels Academy. An email was sent to organizational members who followed a course at the academy. This e-mail consisted of an invitation, which explained the goal of the research and guaranteed the anonymity of the respondents. The organizational members replied if they wanted to participate. The participants were selected through convenience sampling (Leary, 2008), the first fifteen organizational members who responded, were selected for the interviews.

Before the interview started, the interviewer gave a short explanation about the goal of research and asked the interviewees to fill in a form with background information, such as age, function, and years of employment in the organization. This gave the interviewer time to install the voice recorder. The interviews were only recorded, when there was permission from the interviewee (Bloor, Thomas, Robson & Frankland, 2001). Recording the interview gave the researcher the opportunity to interpret the obtained data within the context (Silverman, 2006). This enhances the reliability of the research. In total, fifteen interviews have been held with sixteen respondents. One interview was combined. As can be seen in the table below (Table 4), the main part of the respondents are male (n=13) and only a small number are female (n=3). This may be due to the sector in which the interviews are held, namely construction. Because the sample is drawn from a group of persons who followed the management course, the level of education is high, namely higher vocational education (HBO) or university level (WO). Four respondents did not fill in this question, wherefore this data is unknown. Moreover, it is notable that the participants work at VolkerWessels for a long period of time (an average of 8.8 years), but the number of years in the current function is relatively low (an average of 3.7 years). A possible reason for this is that new functions have emerged in the recent years, for example the function of Chief Operation Office. The majority of respondents exerts this function (n=5).

Table 4

Background variables of participants

Background variable	_	Number	Percentage (%)	
Sex	Male	13	83,7	
	Female	3	16,3	
Educational Level	HBO	9	56,3	
	WO	3	18,8	
	Unknown	4	25,0	
Managerial position	Yes	13	81,3	
	No	3	18,8	
		Min.	Max.	Average
Age (years)		31	49	38,3
Years of employment		2	17	8,8
Years in current function		2 months	12	3,7

Instrument

The interviews are held according to narrative (episodic) interviewing (Bates, 2004). Narrative interviewing gives the participant the opportunity to both look at the chronological order of events and situations (process) as well as the experiences and attitudes of the participant regarding the cultural change process, situations and interventions (Jovchelovitch & Bauer, 2000). It therefore fits the thought of this research that culture is shaped through sense making of organizational members. An important advantage of this kind of research is that the context in which the event has taken place is put forward (Bates, 2004). With narrative interviewing it is important for the interviewer to understand the language of the respondent. In this research, the interviewer has done this by repeating words of the respondent or ask a question with words that the respondent used. In addition, the interviews took place in the work context of the participant, such as the office of the company or the head office of VolkerWessels.

The interviews were semi-structured. The interviewer asked the interviewee to tell the story based on a topic list. A topic list gave structure to the interview (Bates, 2004). The topic list was theory-driven; it was derived from literature. It provided for the degree of control and structure during the interview, so the interview could be adapted to the individual. In addition, this topic list ensured that the interviews were done likewise. The topic list can be found in the appendix (See Appendix 2). The interview questions were open-ended. The interviewer used both general questions as well as more specific questions on the three aspects of interest in this research, namely leadership, collaboration and communication. In this manner, the participant was able to give interpretations of the situation freely (Bates, 2004). The final part of the interview consisted of an evaluation of the interview. Accordingly, the participants confirmed or corrected the interpretations as they have been given in the interview (Bates, 2004). The interview ended with an informal discussion.

Analysis of interviews

The interviews are fully transcribed. By transcribing the interviews the context and interpretations of the interviewees can be taken in to account (Bates, 2004). The transcribed interviews are fed back through an interview report, so the interviewees could shed light on the results and correct interpretations where needed. This is called informed consent (Leary, 2008). In this way, the interviewee can give permission for further use of the data and the rights and privacy of the participants are ensured. Additionally, this member check increases the reliability (Swanborn, 1996; Boeije, 2008). It ensures that statements made in the interviews are interpreted correctly.

The analysis of the interview consisted of axial coding. Axial coding is a method in which both theory-driven as well as data-driven coding is used (Boeije, 2008). Figure 5 illustrates the process of axial coding. First, a code system was taken from the literature study (Theory-driven; Ruona, 2005). For example a code of the aspect 'Leadership' is 'participative leadership'. The theory-driving codes provided for sensitizing concepts in analyzing the interviews (Boeije, 2008). Next, codes were added from the data (data-driven; Ruona, 2005). This caused for enrichment of literature. Examples are the codes for new interventions. The code system is admitted in the appendix (see Appendix 4). Per interview, fragments were coded and put in a table in the word processor. After that, the fragments were restructured per code. The fragments were clustered through cutting and pasting the fragments

per code. This gave a good overview of all coded fragments per code. Because of this, patterns, similarities and differences could be discovered. Furthermore, the number of fragments per code was visible. This systematic procedure of transcribing and coding ensures construct validity (Silverman, 2006).

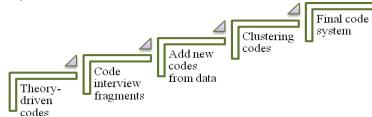


Figure 5. Coding Process. Adapted from Analyseren in Kwalitatief Onderzoek. Denken en Doen. (p. 98), by Boeije, 2008, NL: Boom Lemma uitgevers.

5.1.2. Expert meeting

The third research method in this research was an expert meeting. This meeting built further on the results of the interviews. The goal of this meeting was to validate the outcomes of the interviews with regard to the second sub question: 'What interventions can support the change process from an individual towards a collective learning culture?'. Moreover, this meeting let the participants learn more about possible interventions and their own role in cultural change.

Respondents

The participants of this expert meeting were external consultants from the network of TriamFloat. Some participants were connected to the theme group 'Positioning and professionalizing learning' and others were not. Three weeks before the meeting an invitation e-mail was sent to fourteen possible participants. By letting the consultant invite an expert of interest, we attempted to make the expert meeting a learning experience for both researcher and participants. In this manner, the group consisted out of multiple expertise (Bloor et al., 2001). Eventually nine consultants accepted the invitation. One week prior, we have sent to these consultants a global programme. In this way, expectations were clear and the consultants could prepare for the meeting. Finally, five out of nine Triamfloat consultants and one external consultant have participated. This is a sufficient amount, because an expert meeting ideally consists of a minimum of five and a maximum of ten participants (Bloor et al., 2001). A first advantage of a small group is that participants can discuss a complex topic. A second advantage is that a small group gives time and opportunity for the experts to participate in the group discussion (Bloor et al., 2001).

Instrument

The programme was structured in a way that the participants were able to offer an increasing amount of input throughout the meeting. In this manner, the meeting became a collective learning process (Garayan & McCarthy, 2008). This was also imbedded in the title of the meeting 'Learning to construct together'. The theme was inspired on the mission of TriamFloat, 'Learning to grow together' and on the construction corporation. It is about a collective learning process (learning together) and designing an intervention (constructing). Moreover, the programme helped the researcher in obtaining the correct data. This guarantees construct validity (Silverman, 2006). The programme consisted of three parts (see Appendix 3). The first part of the meeting was a presentation of the first results of the interviews and a plenary discussion with the experts. The second part of the expert meeting consisted of a discussion of the interventions that resulted out of the interviews. The purpose of this part was to confirm the outcomes of the interviews. The main goal of the third part was to gain knowledge about change interventions. A sub goal was to generate knowledge about needed competences for consultants to implement an intervention successfully. For this part, we used the method 'Design thinking' (Brown, 2008). Design Thinking consists of seven ongoing steps from idea to testing and implementing a design (see Figure 6). Due to time restrictions the focus was on the first four steps of the method. Design thinking facilitates a collective learning process among organizational members, which can lead to a prototype for innovation (Brown, 2008). The group was divided into two design teams (Brown, 2008), which designed a concrete intervention by means of a situation.

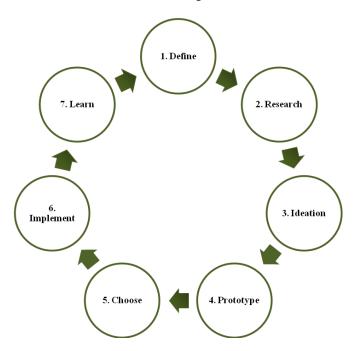


Figure 6. Steps of Design thinking.

Analysis of the expert meeting

During the expert meeting, the researcher was both the researcher as well as the facilitator. The researcher made field notes during the meeting. After the meeting, these notes were worked out in a document for further use. Like the interviews, the elaboration of the expert meeting was fed back to the participants, so they could check the outcomes (informed consent; Silverman, 2006). Furthermore it ensured that statements made in the meeting were interpreted correctly. This increases the reliability of this research (Swanborn, 1996; Boeije, 2008). From the approved document, we distilled interventions and argumentations for interventions. These outcomes were placed in the code document of the interviews. The outcomes are used as an addition on the results of the interviews.

5.2. Results

This section contains an elaboration of the outcomes of the interviews and expert meeting and provides the results to answer the second sub question: 'What interventions can support the change process from an individual towards a collective learning culture?'. The interviews have shown multiple interventions that could be supportive for change in the three aspects of a learning culture. Additionally, the expert meeting provided a validation of the interview results. We have clustered the interventions in multiple categories, as is shown in Table 5. This section ends with a paragraph about overarching characteristics of interventions.

Table 5

Overview of interventions per category

Category	Interventions				
Formal education	Training	Master-classes			
Work-related interventions	Team meeting	Structural meeting	Kai Zen	Lean	
Reflection	Informal moments	Mirroring and feedback	Peer review groups	Coaching	Role-play
Collective goal	Clear goals and expectations	Collective ambition			
Learning from others	Sharing learning experiences	Dialogue	Visiting a project	(Network) meeting	Mix of expertise
Team functioning	Process consultation	Team building			
Other	Change work interior	Facilitation of personal development	Clear document ation	Selection and recruitment	Positive approach

5.2.1. Formal education

Interventions that participants from the interviews have mentioned the most are related to formal education. Participants relate it to change in leadership and to increased reciprocal communication and knowledge sharing. According to ten participants theoretical knowledge contributes to the development of leadership. Topics of training that participants have mentioned are situational leadership, entrepreneurial leadership, personal effectiveness and a team test in which the whole team discovered their leadership style. This knowledge provides for a framework and helps to reflect on one own acts and those of others.

"If you have a theoretical framework, you can understand or deduct from it why someone does something. Why is someone passively waiting, why does someone not do something autonomously? Consequently, what do you have to offer to help him or her with active participation? In these situations, it comes in handy to have the toolbox ready."

Furthermore, theoretical knowledge trains ones behavioural skills. In this manner, an executive can change his leadership style:

"It is no longer the case that you suddenly see the light during such a master class; an 'oh yes' and 'today I have learned a lot'. It is more the confusion, you read more about it, certain aspects stand out, and you notice what others do. And this is how the awareness arises."

The interviews showed multiple forms and content of formal moments. From the interviews, we can distinguish training (n=6), and master classes (n=1). Six participants have indicated that training is supportive in changing the aspect communication. The interviews show three kinds of training, namely communication techniques and skills (n=3), communication styles (n=3) and training that supports inquiry and feedback (n=1). Through training, organizational members gain insight in multiple communication styles and become more aware of their own communication style. Training can support more openness, transparency and dialogue in teams. In this manner, one gains more insight in the communication style of others and this enables them to interact in a better way. Additionally, the interaction of organizational members is further enhanced because the training is combined with relaxation and networking (n=1). A master class is supportive in two manners. Firstly, a director or expert from the organization leads the master class. This can cause for recognition and transfer to work. Secondly, it can stimulate enthusiasm for learning. Knowledge is shared around a central theme, after which an interactive session follows. One participant indicates that this stimulates "cross-selling, selling each other's knowledge and skills" among organizational members. Formal

meetings are on the one hand planned, and on the other hand consistent with the needs of organizational members (n=1) and flexible.

"Now, we have taken it broader, because it became a little bit too crazy, because when you take small steps, we find ourselves meeting each other simply too often. Thus, we have decided that we look at it accordingly. So we will see when we shall meet again."

5.2.2. Work-related interventions

These interventions are significant for the change in collaboration and leadership. Work-related topics are appealing to (technical) organizational members (n=3) and in this manner one can transmit the theoretical knowledge to work (n=2). Consequently, the application of knowledge in practice can cause for change. In addition, the participants from the expert meeting concluded that interventions that are directly related to the work of organizational members are most successful. Research has shown that organizational members must feel a sense of urgency and shared passion for the topic of the meeting in order to result in knowledge productivity and innovation (Verdonschot, 2009; De Jong, 2011). In this way they become responsible and engaged to the topic at hand.

"And the best part is then, when it finds support at work, you can also strike in your own work. However, it must run parallel with training. Also in order to anchor it in your daily structure, because otherwise it is solely educating and if you cannot put it into practice, it is quickly forgotten about."

The interviews show different work-related interventions. According to four participants, team meetings can establish more collaboration and knowledge sharing. This intervention is supportive because in daily work there is otherwise no time for it (n=1). Research from Verdonschot (2009) and De Jong (2010) indicate that when the meeting has a work-related topic that organizational members find interesting, the meetings can generate creativity and solutions for existing problems. Furthermore it can activate and commit organizational members. The interviews confirm this as one mentions that because organizational members are asked to think along, organizational members feel engaged and it bonds organizational members and different departments. The meetings can have a set-up as a free discussion or brainstorm meeting where there is no agenda or as a meeting in which time is scheduled for discussion. Moreover, repetition of meetings is important to get more individuals and departments involved. These structural meetings can enhance openness and transparency with regard to organizational goals. In this way, organizational members know what direction an organization is heading. The use of structural meetings is validated in the expert meeting.

"...for example in the case of a technical problem, we bring in a specialist and then it is more like a brainstorm session, where people can openly say what they think and I am responsible for facilitating that... Indeed, those are again different kinds of meetings that create a positive vibe within the team. People actually had the idea that they could share their opinions and were heard."

Collaboration is enhanced, through getting to know each other, wherefore one can find each other more easily during work and becomes aware of collaboration opportunities. De Jong (2010) states that networking with colleagues is an important aspect of one of the dimensions to create social capital. Other interventions that participants have mentioned in the interviews are Kai Zen (n=1) and Lean (n=1). Kai Zen can generate more work-related learning and Lean makes organizational members more responsible for their work.

5.2.3. Reflection

The third category of interventions is 'reflection'. This category consist of interventions in which organizational members examine each other's behaviour. The interviews show both informal reflection moments as well as formal reflection moments, such as feedback conversations, peer review groups, coaching and role-play.

Facilitating informal moments

Five participants have mentioned the intervention 'facilitating informal moments'. The most participants state that informal moments are supportive for the change in communication (n=4). This can be in conversations (n=2) or in informal meetings (n=2). Informal meetings have no agenda and emerge because organizational members feel the urge to gather. Moreover, one participant indicates that a small team contributes to more frequent conversations. In addition one participant indicates that informal conversations with a colleague executive can help to change leadership. One reflects on each other's work. In short, informal meetings help to reflect on work practice and support reciprocal communication.

"The goal was to focus on the planning. Saying: 'Hey, someone is almost overloaded with work and someone else is doing nothing, so we have to discuss with each other as to how we can divide the workload well.'. That was the goal of the exercise. At a certain moment, that was done and then we were still thinking about 'how to deal with this topic', and consequently a major discussion started. And, indeed, that can happen to four people, but it can also happen spontaneously."

Mirroring and feedback

Mirroring is both supportive for change in leadership as well as for change in collaboration. Participants from the expert meeting have stated that mirroring acts and behaviour is an important intervention for the aspect 'collaboration'. However, it is notable that six participants have mentioned this intervention as supportive for change in leadership. The participants find this intervention important to discover and be critical at one's own leadership style and to mirror acts of others. Moreover, reflection provides for avoiding pitfalls (n=1).

"Yes, you do see examples of how someone else does things and you also see examples of how someone else does not do it... You do remark it. And perhaps that is then the major profit you gain, I think."

Because the acts of an executive are continuously reconsidered, feedback can be supportive to change the aspect leadership. Literature shows that feedback is an important intervention to make knowledge explicit and to adjust behaviour (De Caluwé & Vermaak, 2006). Furthermore, feedback between an executive and an organizational member can support the change towards more individual responsibility for the organizational member. This is confirmed in the interviews (n=2). Through reflection on the personal development of the organizational member and guidance from the executive, organizational members notice their responsibility. Feedback is also supportive on the managerial level (n=1):

"But especially to bring it up in a conversation. And what I see now, is that it actually already begins with how the statutory management engages with the business unit management. Because that leadership was very strict and now they receive more freedom and responsibility. And they will be approached for that. Then you notice that they manage it that way down the hierarchy."

The interviews also show that feedback is a supportive intervention to increase dialogue between organizational members. It helps to enhance dialogue through inquiry in a group (see citation) or in a one-to-one conversation (n=3) and feedback helps to imagine oneself in somebody else's situation (n=2).

"I brought that into a group discussion, asking: 'Is this going well?'. Well, it was extremely convenient. That was the conclusion, really. I said: 'That person committed 40 hours to the project. Is that still making adequate use of one's time? 40 hours? That is a lot, and so forth.' Then suddenly, many matters were addressed, of which people questioned the efficiency. It is convenient, but not efficient. This stimulates a discussion, in order to structurally improve things."

Peer review groups

Three interview participants and experts have marked 'peer review groups' as supportive for changing leadership towards a participative leadership style. It provides insight in strengths and weaknesses (n=2). This makes an executive more conscious of one's leadership style, which causes that one can recognize situations and pitfalls. Additionally, interviewing colleagues is an added value of the peer review group, because normally you do not talk with colleagues about your way of leading (n=1). The literature study shows that this is supportive for changing communication. De Caluwé and Vermaak (2006) state that in a peer review group organizational members can look at their own and other ones behaviour from different angles and in this way, enhance their understanding of each other's sense making. Besides, one interview participant also indicates this as supportive for the communication between an executive and an individual (n=1).

Coaching

The expert meeting and literature show that coaching is an intervention that enables organizational members to reflect on their actions and in this way change their behaviour. Coaching could be effective to change leadership on an individual level (De Caluwé & Vermaak, 2006). It helps an executive to pay attention to individual learning questions. Participants from the expert meeting remark that it is useful to know if there are already executives in the organization with a participative leadership style, so coaching is possible. Besides that coaching could be supportive for the change in leadership, the participants in the expert meeting have indicated that a coaching could also be supportive with regard to the aspect 'communication'. They state that the feedback component and 'giving the right example' could be successful factors in sustainable change.

Role-play

The interviews show that role-play could be both supportive for change in leadership as well as in communication. Two interview participants indicate that in this intervention executives are confronted with their own behaviour. In this manner, executives learn how to give back the responsibility to the individual and to develop a coaching role. The participants from the expert meeting coincide and add that one can also be confronted with the type of leadership that is envisioned by the organization.

"Well, just role-play. That you sit across from an expert and you have to tell him how he is supposed to do his job. Yes... with an actor and you receive immediate feedback on how someone wants to be treated. More in a coaching role, than a directive role. Facilitate more, making sure that they can optimally do their thing."

Moreover, two participants mention this intervention with regard to the aspect of communication It can make organizational members aware of their communication style, which enhances dialogue between colleagues.

5.2.4. A collective goal

Another category of interventions that we distinguished out of the interviews is 'A collective goal'. This category is closely linked to one of the dimensions in the model of Derksen, De Caluwé and Simons (2011) that are important to generate innovation. In their study they point out that creating a future is one of the aspects that provides for the developmental space in a team and contributes to innovation. It creates value for organizational members to their work and enhance the interaction between these organizational members.

Goals and expectations

Firstly, two participants indicate that setting clear goals and expectations makes organizational members more conscious about the responsibility they have regarding work and learning. In this manner, it can change the aspect 'leadership'. Because the goal is clear, organizational members know what to expect. Furthermore, the mission and vision becomes clear through strategic sessions. Participants from the expert meeting coincide and mention that it is significant for an organization to have an image of 'participative leadership'. Secondly, a collective ambition can provide for more open and transparent communication. According to three participants an unambiguous policy makes that

everyone in the organization knows what is expected. An overarching policy can cause for more unity and commitment to the organization. Identifying organizational goals also help to make organizational members aware of the desired situation of the organization and that organizational members have a significant role in this. Participants from the expert meeting confirmed this. Lastly, a collective goal can also have the form of a deadline, which can support more collaboration (n=2):

"At 16.00 that mailman stood in front of the door, so to speak, and he came to pick up the bag where the letters were supposed to be in. And it just had to be done, so yes, that encouraged the team to work harder."

Collective ambition

Multiple participants of the interviews have stated that formulating a collective ambition is a supportive intervention to enhance collaboration within a team as well as between departments. Organizational members collectively work towards this goal, wherefore it can provide for teamwork. In time of economic uncertainty it is important to have a long-term vision (n=1). Eventually, a collective vision can provide for better results and appreciation (n=1). Furthermore, this intervention can provide for collaboration in larger multidisciplinary projects, because it helps to create unity. In this way, one will earlier ask advice from other companies. However it is important that organizational members can put their own idea in this work process (n=1).

"So our share might not be as significant... but if the other messed up, it affects everyone negatively. Hence, if we do not try our best, even though we are the 'little brother', it will affect everyone negatively."

One participant specifies a collective ambition to core values. Core values help to establish attitudes and behaviour that support collaboration and team work. Because it is established in the organization's policy, managers are also more directed towards collaboration.

5.2.5. Learning from others

This category entails interventions about 'learning from others'. The interviews have shown different interventions, namely 'sharing learning experiences', dialogue, digital media, and 'visiting a project'.

With the intervention 'sharing learning experiences', individuals share successes with others (Boonstra, 2010). This can create enthusiasm to learn and share knowledge. In this manner, other organizational members can be infected. This can provide for more collaboration on the long term. The interviews confirm this and add that through this intervention the organization gives appreciation to its members. In addition, the interviews show that this intervention can also be supportive for change in communication. However, one participant indicates that successes should be shared more often and that there is too much attention for discussing failures.

Seven participants indicate that sharing successes can enhance the communication through digital media (i.e. Intranet, website and social media), newsletters and through a presentation. Through these media, organizational members can identify successful cases and learn from it. Furthermore, through newsletters, digital media or a presentation, new developments can be spread. One participant adds that an executive can give an example of how work can be done successfully and so others can learn from it.

The intervention 'dialogue' is not mentioned in the interviews, but only in literature. This intervention has its focal point in creating new interactions and discovering new ideas (Boonstra, 2004). Dialogue consists of sharing experiences and doing experiments in order to find new realities and notions. In this manner, the aspect 'communication' changes.

Lastly, two participants have stated 'visiting a project' as supportive to enhance collaboration between organizational members. By visiting a project, organizational members learn from each other's work. Furthermore, this is a team activity, wherefore it enhances collaboration.

Mix of expertise

We have explained multiple interventions in which organizational members learn from each other. However, multiple participants (n=6) have stated that it is important to think about what the right form

and mix is of a group. Research of Verdonschot (2009) indicates eleven design principles for innovation, which of one says that "unusual combinations of subject matter expertise" are supportive for creativity and innovation. A mix of different areas of expertise and topics can cause for the development of new expertise and new insights through looking at a topic from multiple angles. The interviews of this research confirm this principle and add the following unusual combinations: different departments, different generations and different personal types.

Different disciplines

A mix of different disciplines and expertise can be supportive for collaboration between departments and communication. A mix of disciplines can take the shape of a meeting with different disciplines (n=3) or a network meeting (n=8). The interviews show that the character of multiple disciplines (n=2) causes that organizational members share knowledge and learn from each other in a meeting. The study of De Jong (2010) mentions the importance of networking with external parties, such as with other departments or even other organizations, to stimulate knowledge exchange. In this manner, it contributes to social capital. The participants of the expert meeting have stated that interdisciplinary team meetings can support more collaboration and that "Bringing people together" can be supportive to generate more reciprocal communication. Eight participants have mentioned network meetings as supportive interventions to enhance collaboration between departments. It helps to get to know the different disciplines in the organization (n=2). Additionally, because one meets each other in a neutral environment, this intervention can provide for new insights and it helps to grow towards each other. It is both supportive for knowledge sharing (n=5), as well as for teamwork in general (n=3). A great advantage is that this mix of individuals from different companies helps to establish a base for a network (n=2). A meeting as such helps for an easier accessibility of other companies to work with.

"Yes, that definitely has an influence. However, it is the people that take the upper hand, they can easily find each other. A great example is that a vast group of people at concept development is concept designer/developer and they are approachable for everyone."

Mix of generations/ experience level

Besides a mix of different disciplines, it is also notable from the interviews that a different age and experience level characterizes interventions. Three participants have indicated that an one-to-one conversation could be supportive to enhance the collaboration between two individual organizational members. Conversations with a more experienced individual is very valuable. Additionally, in these intervention one can give feedback to each other. Lastly, by having these conversations frequently, the collaboration is further enhanced. One participant have stated that a mix of generations is important to support change towards a more participative leadership style. Furthermore, four interview participants have mentioned the intervention coaching (n=4). An experienced organizational member coaches a novice and they exchange knowledge. Consequently, this stimulates reciprocal communication and learning from each other. An advantage of coaching is that it is not function-specific:

"It was consciously done throughout the organization. So not an executive with an executive, but for example a head of the organization's bureau with a designer of the engineer department. Or an external executive with someone of the calculation department. You are not all in the same area of work, where you would easily talk about the project. Instead, learn everywhere from an experienced person."

Mix of types of persons and colleagues

The interviews have further shown that a mix of type of persons is of importance. Literature shows that this is important in enhancing collaboration. The expert meeting and interview participants confirm this as they state that a mix of different persons is supportive for collaboration in teams (n=1) and between departments (n=2). The mix in a meeting causes that organizational members share knowledge. Furthermore, it helps to know what other organizational members at other companies are working on. Lastly, one participant indicates that more women in the organization can be valuable with regard to the communication aspect, because then "it takes of the sharp edges of men".

5.2.6. Team functioning

Another important category of interventions is team functioning. Literature shows that this is important to enhance collaboration. With process consultation, team functioning (relations and social dynamics) is diagnosed (Cummings & Worley, 2009). Together with organizational members a consultant can search for future problems or similar situations in team functioning. Four interview participants have mentioned that this intervention enhances the collaboration between organizational members. It gives more insight in what works and what does not work. In addition to the paragraph 'mix of types of persons' it helps to indicate which individuals are needed in work. Because "...you need – both the creative person and the process manager, as well as someone who can work it out until the very last detail. All this you need.".

An intervention that can be supportive of team functioning is team building. Cummings and Worley (2009) state that team building is aimed at improving team functioning and consists of joint activities. Through teambuilding behaviour of a team or group can be changed, because it enhances the relations and interpersonal skills within the team (De Caluwé & Vermaak, 2006). The interviews have also indicated this intervention as supportive (n=2). The participants state that it is important to know each other personally in order to work with each other. The participants from the expert meeting add up the aspect leadership, because a leader does not stand apart from the team. In order to change the type of leadership, the team has to cooperate in this change.

5.2.7. Other interventions

The interviews also show interventions and characteristics of interventions that do not fit one of the categories. We will discuss these interventions and characteristics of interventions in this paragraph.

Firstly, five participants have stated that changing the work interior is a supportive intervention for enhancing collaboration. Research from Fruchter and Bosch (2011) has shown that artefacts such as an open work space can enhance knowledge exchange and reflection on action. The interviews concurs and show that an open office stimulates knowledge sharing and collaboration (n=4), because one can see each other. Moreover, through this intervention the group dynamic can be changed (n=1). The following citation illustrates the change in collaboration:

"Yes, there were two departments with employees preparing the work, one drew roofs and the other the façades. The walls in between have been demolished, they are all united in one office now. Also to stimulate that collaboration. That was their wish."

Secondly, multiple participants mention in the interviews is the 'facilitation of personal development' (n=3). For an executive it can contribute to the development from a traditional towards a more participative leadership style (see citation). The participants of the expert meeting add that this intervention enables leaders to talk about their own career prospects and leadership style. In addition, the facilitation of an organizational member can support the change towards individual responsibility.

"That is the archetypical image of the contractor that one has: the senior man who decides on the direction from his reasonably dominant position. Nowadays there is more room for modern management, where they genuinely try to elicit the best in people. In my opinion that relates to the philosophy of VolkerWessels, the beautiful pyramid that reads; 'the best people'."

Thirdly, it is notable that for the change in the aspect of communication interventions regarding information storage are supportive. Three participants have stated that it is important to have a clear documentation of work documents and earlier projects. This can help to share implicit knowledge with others. Furthermore, it is important to communicate at distance and work in an uniform way in projects. To keep the documentation up-to-date it is important to continuously renew the information in the system (n=1). Furthermore, participants in the interviews have mentioned platforms for information, such as LCD screens (n=2) and Face Book on intranet as interventions that could enhance the openness in communication. Additionally, three participants prefer direct communication over other communication media (e.g. e-mail) to change the communication towards more dialogue.

Fourthly, five participants have indicated selection and recruitment as a supportive intervention to change the type of leadership in the organization. Participants have mentioned three ways to do so. The first way is to recruit individuals who are already familiar with a participative leadership style (n=2). Consequently, the leadership style in the organization changes. The second way is to recruit younger individuals for executive functions. One participant states that older executives hold back the change towards a more participative leadership style. Through the second way of recruiting, leadership changes naturally. The last way, is organizing organizational members that can cope with freedom and responsibility (n=2) around an executive. One participant calls this last way "a luxury", because it is not common that you can collect individuals around you that fit one's leadership style.

Fifthly, the interviews have shown that a positive approach in interventions is important. Four participants have indicated that it is significant when failures and best practices are discussed. The main advantage that participants have mentioned is that a positive approach is beneficial to learning and is supportive for knowledge sharing. This result can be underlined with the research of Verdonschot (2009), in which she states that building on strengths is a prerequisite for innovation. Similarly, De Jong (2010), in which an appreciative approach gets an important role in learning in relation to social capital. An example from the interviews is the recognition of the management team when one shares its experiences with others.

"You should choose the approach that you have to learn something out of what you tell. Otherwise there evolves a culture in which people do not dare to talk about their mistakes/faults and was has gone wrong. One needs to choose a positive approach for that."

Moreover, the role of the executive is of great importance in interventions for all three aspects (i.e. leadership, communication and collaboration). In the first place, participants have stated that through involving the management knowledge and examples can be shared throughout the organization more easily. This contributes to collaboration and communication. However, one participants mentions that it is important to feed back and give recognition to the organizational members for the example. Literature shows that not only the role of an executive is important, but also other disciplines can help organizational members in their learning process, for example HRD practitioners and trainers (Wierdsma & Swieringa, 2011). In the second place the role of an executive is important, because the management is often empowered to make important decisions (n=3) and establish contracts between different companies (n=1). In this way it can enhance team work. In the third place, the role of an executive is important in giving back the responsibility to the organizational members. An executive should give trust, space and freedom to the organizational members to take their responsibility (n=4) and to involve them in decision making processes (n=2), otherwise it is not credible. An example of involving organizational members is making no distinction between juniors and senior functions. In this manner, individual responsibility becomes self-evident.

"Yes, you do see a greater shift in the responsibility employees have for their own development. That really originates from the tradition of the reliance on the executive or manager. It does not work like that anymore. Employees are or become increasingly opinioned. They want different things and you have to offer that possibility, and it is being offered indeed."

In the last place, the participants of the interviews have declared that an executive can serve as an example in being transparent regarding successes and failures (n=1) and it is important that one is physical present (n=2). "Showing your face..." can provide for more openness. An example is illustrated in the following citation:

"For example, the manager calls on all colleagues twice a year, also those that are outside digging holes with a shovel or those that are applying asphalt. You name it; every single person. And simply telling the story. It seems similar to politics, like a campaign. What do we stand for? What can we improve? What are we doing well and should continue in the same way?"

Short summary

This research has provided multiple interventions that can support the change towards a collective learning culture. We have summarized the interventions out of the results in Table 6.

Table 6

Overview of interventions per category and aspect of a learning culture

	Aspect	General	Leadership	Communication	Collaboration
		interventions			
D1 1	Category		m · ·	m · ·	
Planned	Formal education		Training	Training	Master classes
	Reflection		Formal feedback Role play	Role Play	
	Learning from others			Sharing successes through (digital) media	
	Other		Facilitation of personal development Selection and recruitment	Clear documentation Unambiguous policy	Change in work interior
Continuous	Collective goal	Search Conferences (De Caluwé & Vermaak, 2006)	Having clear goals and expectations	Having clear goals and expectations Collective ambition	Collective ambition
	Reflection		Mirroring Feedback (De Caluwé & Vermaak, 2006) Coaching	Informal reflection moments Coaching	Concerve amoriton
			(De Caluwé & Vermaak) Peer review groups	Peer review groups (De Caluwé & Vermaak, 2006)	
	Learning from others			Dialogue (Boonstra, 2004) Sharing learning experiences	Sharing learning experiences (Boonstra, 2010; interviews) Visiting a project
				Right mix of expertise	Right mix of expertise
	Team functioning			Process consultation	Process consultation (Cummings & Worley, 2009)
			Team building (expert meeting)	Team building	Teambuilding (Cummings & Worley, 2009; interviews)
	Work related interventions		Work-related interventions	Structural work meetings	Work-related interventions Team meetings
					Communities of practice (Boonstra, 2010) Workshops (Boonstra, 2010)
		Action learning (Boonstra, 2004; Cusins, 1995) Kai Zen/Lean			
	Other (positive approach)	Positive approach 4D Cycle (Tjepkema & Verheijen, 2004)			Positive approach

6. Conclusion and discussion

This thesis ends with a conclusion and discussion. In addition, at the end of this chapter we provide implications and recommendations for future research.

6.1. Conclusion

In the introduction, we stated that many attempts of organizational change fail (Boonstra, 2004a; Kotter & Schlesinger, 2008). A possible explanation is that it focuses on 'what' instead of 'how' an organization changes (Bennebroek et al., 2004). Therefore the goal of this research was to provide insight in how a learning culture changes and what interventions can support this change process. To answer the research question we have conducted a literature study, interviews and an expert meeting. In this chapter, we will provide the answer to the main research question:

What aspects of a learning culture in an organization change in the transition from an individual towards a collective learning culture and what interventions can support this change process?

To answer this research question we have composed two sub questions. The next sections contain the conclusion of the two sub questions.

6.1.1. Sub question 1

In this paragraph we give answer to the first sub question: What aspects of a learning culture change in the transition from an individual towards a collective learning culture?

Literature shows that there are two distinct states of an organizational culture; the individual and collective learning culture. In an individual learning culture learning is merely formal education (Baars, 2003). However, this is a rather traditional thought. A collective learning culture is a culture in which organizational members actively seek for learning opportunities themselves (Baars, 2003) and fits the fast changing environment an organization is in (Wierdsma & Swieringa, 2011). A learning culture changes by its social interaction (Weick, 1995; Van Nistelrooij, 1999; Martin, 2004), jointly sense making, and the development of organizational members (Van Gent & Van der Zee, 2001). The change in a learning culture is therefore a process of co-creation. Literature shows different values for an individual and a collective learning culture (Baars, 2003; Watkins & Marsick, 1996; Onstenk, 2004). The change in values touch upon three main aspects, namely leadership, collaboration and communication.

The values of leadership that change are the responsibility for learning and the leadership style. In an individual learning culture the responsibility for learning lies with the management (Baars, 2003). The management makes decisions with regard to learning in an organization. The leadership style that fits this value is directive, which is aimed at the organization's system and directing top-down (Kotter, 1990; Ellinger et al., 1999). This changes towards a collective learning culture. Here, individual responsibility for learning and participative leadership are important values (Baars, 2003). Organizational members are responsible for their own learning process. An executive adopts a different role and should support organizational members (Baars, 2003; Fousert, 2005), empower them (Watkins & Marsick, 1996) and facilitate learning opportunities (Ellinger et al., 1999; Watkins & Marsick, 1996). In this manner, the change in leadership contributes to the knowledge productivity in the organization.

The values that change regarding collaboration are knowledge transmitting (Baars, 2003), cooperation and collaboration (Watkins & Marsick, 1996; Onstenk, 2004). In an individual learning culture there is little collaboration. In an individual learning culture and knowledge is transmitted through formal education. An adventitious disadvantage is that knowledge stays implicit (Nonaka & Takeuchi, 1995). For example, when organizational members leave the organization, so does their knowledge. It is therefore important to share and anchor this knowledge in the organization, so it contributes to the organization's learning capacity. Collaboration is an important aspect to establish knowledge sharing (Baars, 2003; Watkins & Marsick, 1996; Onstenk, 2004). There is more collaboration among organizational members in a collective learning culture. Moreover, learning is not job-specific, as the boundaries of an organization become flexible (Wierdsma & Swieringa, 2011).

This gives organizational members more developmental space and freedom in which direction they want to take. Consequently, organizational members learn a broader range of job skills, which aids their employability. This contributes to the continuous improvement of an organization. With regard to communication, inquiry, feedback, dialogue (Baars, 2003; Watkins & Marsick, 1996) and open and transparent communication are important values (Baars, 2003). De Jong (2010) concurs with this and indicates that communicative skills are significant for creating knowledge. In an individual learning culture communication is one-sided and closed. Therefore knowledge stays implicit (Nonaka & Takeuchi, 1995). Towards a collective learning culture the communication becomes more open (Baars, 2003). Because of this openness, organizational members know their expectations and this enables them to act accordingly. Furthermore there is more room for inquiry and dialogue, which stimulates continuous and active learning (Wierdsma & Swieringa, 2011; Baars, 2003). Knowledge and assumptions become explicit, which moderates the spread and application of knowledge throughout the organization, In this manner, an organization becomes knowledge productive (Kessels, 2001) and is able to react to the fast changing environment it is in.

In short, a learning culture changes on three aspects, namely leadership, communication and collaboration. Culture changes through the social interaction and jointly sense making of organizational members. This implies that change in a learning culture depends on the development of organizational members. An executive has a supportive role in this. A learning culture therefore not only derives from the individual learning capacity, but from the organization's ability to bind organizational members in order to achieve continuous improvement and change. Hence, co-creation and the joint sense making of organizational members provide for durable change (Weick & Quinn, 1999).

Besides gaining insight into the change in a learning culture, another goal of this research was to find interventions that support the transition from an individual towards a collective learning culture. In the following section we provide the answer to the second sub question.

6.1.2. Sub question 2

In this paragraph we give answer to the second sub question: What interventions can support the change process from an individual towards a collective learning culture?

This research shows two approaches towards change, namely a planned and a continuous approach. The results of this research demonstrate interventions that fit both approaches.

Within the planned approach, change is a phased process (e.g. Lewin, 1951; Weick & Quinn, 1999; Kotter, 2007). Therefore, the implementation of an intervention is a step-by-step process, of which the end result is set (Swanson & Holton, 2009; Wierdsma & Swieringa, 2011). This research shows multiple interventions that fit this approach and that support the change from an individual towards a collective learning culture: sharing experiences through digital media, selection and recruitment, feedback, the facilitation of personal development and changing the work interior. What has been noticeable from these interventions is that they are mainly focused on changing the aspect leadership. With regard to communication it is interesting to mention that the intervention 'sharing experiences through digital media', implies a one-sided process. Knowledge is transmitted through media and it is therefore not a reciprocal process. This fits more the individual learning culture (Baars, 2003). Furthermore, the intervention 'changing the work interior' provides for more collaboration. What has also become clear from this particular research is that, except for the interventions 'changing the work interior' and 'sharing experiences through digital media', all interventions take place on the individual level of the organization. However, the results of the literature study have shown that interventions on the individual level were characteristic for a continuous approach (Worren et al, 1999). The interventions that this research shows are focused on the personal development of organizational members. Furthermore, the interventions are all centred on changing systems and procedures, which is a characteristic of the planned approach (Cummings & Worley, 2009). In this research, the intervention 'selection and recruitment' is aimed at changing the procedure considering the recruitment of new executives and the intervention 'feedback' as a planned intervention is about implementing job evaluation conversations, in which individuals discuss work-related issues. In addition, research from Fruchter and Bosch (2011) has shown that artefacts such as an open work

space and digital media devices can enhance knowledge exchange and reflection on action. This is therefore vital for collective learning. However, in this manner culture is defined as something static. The planned interventions from this research, such as formal education, personal development conversations and feedback, emphasize on changing the surface of culture (i.e. behaviour and artefacts), instead of changing the deeper underlying assumptions (see model of Schein, 1990).

Yet, the literature study of this research shows that the mental models and hidden assumptions of organizational members define culture, instead of their behaviour (Martin, 2004; Martin et al., 2004; Alvesson & Sveningsson, 2008). Moreover, culture is not static, but changes through the social interaction between organizational members (Van Nistelrooij, 1999; Martin, 2004). Interventions to change a learning culture should be aimed at changing mental models and interaction. This cannot be achieved through planned interventions, but through interventions that fit a continuous approach to change. The results from this research show the following interventions that fit this approach: workrelated interventions, informal reflection moments, coaching, collective goals and interventions that are aimed at learning from others, mix of expertise, dialogue and team functioning. It is further noticeable that the results show that these interventions support the change in all three aspects of change (i.e. leadership, communication and collaboration). Conversely to the planned approach, in the continuous approach to change the end result of these interventions is not fixed, but reaches a procedural goal (Block, 2005). Procedural interventions fit the learning needs of the organizational members and the change process an organization is in and are therefore custom made (Worren et al., 1999; Bennebroek et al., 2004). Because these interventions fit the development and change process of the learning culture, the organization is able to adapt to the fast changing environment (Cummings & Worley, 2009). This research shows multiple patterns that are vital for the change towards a collective learning culture.

First of all, this research shows that envisioning a future is an important aspect of continuous change interventions. Accordingly, Derksen et al. (2009) state that generating a future is an important aspect of developmental space in teams that leads to innovation. This research shows that a collective goal is important to enhance reciprocal communication and collaboration. Interventions that have this in specific are 'formulating a collective ambition' and 'having clear goals and expectations' and search conferences (Boonstra, 2010). Verdonschot (2009) adds that a collective goal should arise from the organizational members and consist out of the different perspectives that derive from different expertise. Otherwise it can stagnate creativity because of groupthink. This is in accordance with a continuous approach towards culture, in which organizational members shape culture.

Moreover, this particular research demonstrates that continuous change interventions are focused on the team level of an organization, rather than on the micro level as Worren et al. (1999) state. This outcome is not surprising, in the sense that culture changes through the shared sense-making of organizational members and sharing knowledge generates new ideas (Boonstra, 2010). The interventions from the continuous approach are aimed at learning and facilitating interaction. Interventions should therefore not only be focused around individual organizational members, but on the networks of organizational members in order to change the whole organization's learning capacity.

This research further shows that interventions that support the change towards a collective learning culture should take place in informal moments. This means that interventions should be integrated in work practice, such as team meetings, rather than interventions that take place in formal moments, outside work. Boonstra (2010) mentions interventions as communities of practice and workshops, in which organizational members work collectively on a specific knowledge domain. This research adds interventions such as sharing learning experiences, in which one learns from successes in work, general work-related interventions, visiting a project and interdisciplinary meetings. These interventions are significant for an organization to survive in a knowledge economy in the way that learning and working becomes more integrated (Onstenk, 2004). Work-related interventions can follow the developments the organization is in. This research further shows that working collectively on a work-related topic is supportive for more engagement and individual responsibility, wherefore these kinds of interventions are supportive for the change in leadership. Additionally, the work-related character of these interventions provide for an easier application of theoretical knowledge to work. As can be found in the introduction, this is an important characteristic of knowledge workers (Kessels, 2001).

In addition to work-related interventions, an important condition is that organizational members can reflect on their work, so knowledge becomes explicit (Argyris, 2004). Furthermore, in this research it has become prominent that because of the alternation of action and reflection, organizational members learn and change their hidden assumptions (Argyris, 2004; Wierdsma & Swieringa, 2011). This provides not only for change in the behaviour of an executive, but for an actual change in the leadership style as an assumption. In this manner, organizational members become aware of each other's sense-making (Weick & Quinn, 1999). When organizational members know where one works on, this can be supportive for more collaboration and better interaction. With regard to communication and collaboration, these interventions take place on team level, for example peer review groups, but with regard to the change in leadership these are mostly individual reflection interventions, for example coaching. Reflection interventions fit the continuous approach to change, because continuous reflection can provide for continuous improvement and change, which is vital to keep up with environmental changes, such as globalization (Cummings & Worley, 2009).

Reflection is an essential component for learning (Argyris, 2004). For establishing a collective learning culture, learning from others is important to generate knowledge sharing. This research further shows that a positive approach is significant. In line with this finding, Verdonschot (2009 states that 'building on strengths' is a prerequisite for innovation. Similarly, De Jong (2010), states that an appreciative approach is significant for social capital. Although this research has not found the cyclical process of the 4D cycle (Tjepkema & Verheijen, 2011), this research have found that interventions that are centred around a positive approach are important for learning in general, but also for collaboration in the shape of sharing successful experiences (e.g. Boonstra, 2010; team meetings) with others. Learning from others and a positive approach are important to establish a collective learning culture.

Next to generating (new) knowledge and learning from others to stimulate collective learning, it has become clear from this research that the social component of learning is important to establish more collaboration and communication. This research shows this mainly in the interventions regarding 'team functioning', such as process consultation and team building (Cummings and Worley, 2009). Process consultation can show what is effective in a group and teambuilding can develop more teamwork and interpersonal skills to enhance collaboration between organizational members. Through this intervention, organizational members get to know each other better and knowledge can be shared and spread more easily throughout the organization. This is important for an organization to become knowledge productive (Kessels, 2001). Additionally, this social component in change expresses itself in the importance of multidisciplinary teams as intervention and the network function of interventions. Through these multidisciplinary teams, organizational members can collect broader knowledge. This can contribute to the employability of organizational members and develop flexible job skills, which is important in a collective learning culture (Baars, 2003). Research from De Jong (2010) adds that social networks are important for knowledge productivity and innovation.

In conclusion it can be said that planned change interventions are still of importance, but that continuous change interventions support the change towards a collective learning culture. This is due to that continuous change interventions primarily aim at interaction, learning and improvement. It is essential for organizations to focus on changing hidden assumptions of organizational members. Planned interventions, such as improved systems and procedures, can support the change with continuous interventions secondarily or in a parallel process. It has further become clear that it is important to bring organizational members together so they are able to interact and exchange knowledge. Cultural change derives from organizational members and therefore managers and HRD practitioners have a supportive role in this. In conclusion, interventions should fit the continuous development of organizational members as well as that of an organization, in order to change towards a collective learning culture, which is needed in a knowledge economy.

6.2. Discussion

This research was conducted to find multiple supportive interventions for the change in a learning culture with different qualitative research methods. However, there are also some limitations of this research and recommendations for future research.

The first limitation of this research is low transferability. The transferability ensures the external validity of research. However, the results of this research are based on one case. For future research, it is recommendable to study several organizational cases in order to apply outcomes in likewise situations (Boeije, 2008). In this manner, the transferability can be increased and there is an opportunity to do a cross-case study. In addition, the transferability can be enhanced when organizations from different sectors participate.

Furthermore, the majority of participants of this research are male and well-educated individuals. An explanation for this is that this research is done in the construction sector, in which a majority of male employees work. This can give a distorted view on the results. For future research, a mix of male and female participants is recommendable. Moreover, research should be done among lower educated organizational members or lower functions. One could argue that lower educated organizational members have different learning needs and other interventions would apply to this group.

Another recommendation for future research, regarding the methodology, is the use of observations. In this research, we held interviews with a narrative interviewing technique (Bates, 2004). This has provided rich information about the context. However, additional observations would be valuable, because then actual behaviour can be monitored (Leary, 2008) and the results are less socially desirable. Furthermore, a more structural research instrument, in which the interview questions are set, would give more consistent results, because there is less variance in the questions.

This research has used different qualitative measures. The validity can be further enhanced through a triangulation method with both qualitative as well as quantitative measures (Leary, 2008). In this manner, a cross-method research can be done. For example, the interviews showed that personal characteristics are also important for interventions to be supportive. This can be examined through a self-report among organizational members. In this manner, the research topic is examined from different angles.

The participants of this research have mentioned multiple interventions that they indicated as supportive. However, it is not examined to what extent these interventions are actually supportive or effective. For this reason, it would be interesting to do design-oriented research. Through design-oriented research data is collected, implemented and improved (Verdonschot & Kessels, 2011). With this research design interventions and specific characteristics of these interventions can be further examined and tested.

We have examined in this research three important aspects of a learning culture, namely leadership, collaboration and communication. Multiple interventions are supportive for two or more aspects, for example the intervention 'sharing learning experiences' can be both supportive for change in communication as well as in collaboration. It seems that these aspects are interacting. Further research can investigate to what extent these aspects influence each other. In this way, interventions can be put into action on a more precise manner.

Finally, the results of this research show that for implementing interventions, multiple characteristics are important, namely a positive approach, the role of an executive and to what extent an intervention is related to work. These aspects came across during the analysis of the data. It would be significant to examine these characteristics more closely. In addition to the role of the manager, the role of the consultant is an influencing factor in choosing a change strategy (De Caluwé & Vermaak, 2006). An executive or HRD- practitioner is the one who implements the intervention in a certain context. The supportiveness of an intervention therefore depends on the context in which an HRD practitioner implements the intervention and the chosen strategy or approach. For example, an intervention that fits the continuous approach can be implemented planned or vice versa. Factors as the organizational context and the role of an (external) HRD practitioner or L&D department should therefore also be taken into account in future research.

6.3. Practical recommendations

Because we conducted this research by order of TriamFloat, this section provides practical recommendations. This research was aimed at creating insights for HRD practitioners into the change of a learning culture and interventions that are supportive in this process.

The results show that both planned and continuous change interventions are important. Hence, in the introduction we stated that a custom made approach to change is most effective (Beer et al., 1990; Worren et al., 1999). It is therefore recommendable to implement interventions that fit a continuous approach. Hereby, HRD practitioners also can connect to the needs of the client and from this perspective create a product or service.

Secondly, HRD practitioners can establish the change in learning culture when starting from the micro level of the organization. This research has indicated that both interventions on the individual and on team level are supportive for change. Additionally, interventions should be aimed at bringing individuals together and stimulating the interaction between organizational members.

Furthermore, it is important that interventions that are implemented are work-related and of value for the organizational members. This can create more commitment of the organizational members to change and that they feel responsible for their work. Moreover, they can apply the shared knowledge to their work. An example is integrating an intervention such as role play in an existing team meeting.

Lastly it is recommendable for HRD practitioners to map to what extent leadership, collaboration and communication are established in an organization. Hereby, the organization can examine on which aspect the main focus is and which aspects need more attention. In this manner, the three aspects become more balanced and the learning culture can change in its entirety.

7. References

- Alvesson, M., & Sveningsson, S. (2008). *Changing organizational culture. Cultural change work in progress.* London: Routledge.
- Argyris, C. (2004). Double-Loop Learning and Organizational Change: Facilitating Transformational Change. In Boonstra, J.J. (ed.). *Dynamics of Organizational Change and Learning*. UK: John Wiley & Sons Ltd.
- Baarda, D.B., Goede, M.P.M. de, & Teunissen, J. (2005). *Basisboek Kwalitatief Onderzoek*. NL: Stenfert Kroese.
- Baars-Moorsel, M.A.A.H. van (2003). *Leerklimaat: De culturele dimensie van leren in organisatie*. Academic dissertation, Tilburg University. NL: Eburon.
- Bates, J.A. (2004). Use of narrative interviewing in everyday information behavior research. In *Library & Information Science Research*, 26, 15–28.
- Beer, M., & Nohria, N. (2000). *Breaking the code of change*. USA: Harvard Business School Publishing.
- Beer, M., Eisenstat, R. A., & Spector, B. (1990). Why Change Programs Don't Produce Change. *Harvard Business Review*, 68(6), 158-166.
- Bergenhenegouwen, G.J., Mooijman, E.A.M., & Tillema, H.H. (2010). *Strategisch opleiden en leren in organisaties*. NL: Stenfert Kroese.
- Boeije, H. (2008). *Analyseren in Kwalitatief Onderzoek. Denken en Doen.* NL: Boom Lemma uitgevers.
- Boonstra, J.J. (2000). *Lopen over water, Over dynamiek van organiseren, vernieuwen en leren*. Inaugurele rede, February 2000, Vossiuspers AUP. Derived from http://www.jaapboonstra.nl/publicaties/Oratie_Lopen_over_water.pdf.
- Boonstra, J.J. (2004). Conclusion. In Boonstra, J.J. (ed.). *Dynamics of Organizational Change and Learning*. UK: John Wiley & Sons Ltd.
- Boonstra, J.J. (2010). Leiders in Cultuurverandering. Assen, NL: Koninklijk Van Gorcum.
- Block, P. (2005). Feilloos adviseren. Een praktische gids voor adviesvaardigheden. Den Haag, NL: Academic service.
- Bloor, M., Thomas, M., Robson, K., & Frankland, J. (2001). *Focus Groups in Social Research*. UK: Sage.
- Brown, T. (2008). Design Thinking. In Harvard Business Review, June 2008.
- Burg, E. van (2011). Kwaliteitscriteria voor ontwerpgericht wetenschappelijk onderzoek. In J. van Aken & D. Andriessen (Eds.), *Handboek ontwerpgericht wetenschappelijk onderzoek: Wetenschap met effect.* Den Haag, NL: Boom Lemma.
- Caluwé, L. de, & Vermaak, H. (2006). *Leren Veranderen. Een handboek voor de veranderkundige.* Deventer, NL: Kluwer.
- CBS (2012). *Bouwen en wonen*. Derived on 15th of Octobre, 2012 from http://www.cbs.nl/en-GB/menu/themas/bouwen-wonen/publicaties/artikelen/archief/2011/2011-3334-wm.htm.
- Cusins, P. (1995). Action learning revisited. In *Industrial and Commercial Training*, 27(4), 3 10.
- Derksen, K., De Caluwé, L., & Simons, R. (2011). 'Developmental space for groups working on innovation', *Human Resource Development International*, 14(3), 253-271.
- Drucker, P.F. (2001). *The Essential Drucker. Chapter 23: A century of social transformation*. 299-321. NY: Harper Collins Publishers.
- Ellinger, A.D., Watkins, K.E., & Bostrom, R.P. (1999). Managers as facilitators of learning in learning organizations. In *Human Resource Development Quarterly*, 10(2), 105–125.
- Fousert, D. (2005). Dienstbaar Leiderschap: dat werkt!. NL: Kluwer.
- Ford, J.D., & Ford, L.W. (1995). The role of conversations in producing intentional change in organizations. In *The Academy Management Review*, 20(3), 541-570.
- Fruchter, R., & Bosch-Sijtsema, P.M. (2011) "The WALL: participatory design workplace supporting creativity, collaboration and socialization," special issue International Journal of AI & Society. In *Journal of Knowledge, Culture and Communication*, 26(3), 221-232.
- Garavan, T.N., & McCarthy, A. (2008). Collective Learning Processes and Human Resource Development. In *Advances in Developing Human Resource Development*, 10(4), 451-471.
- Gent, B. van, & Zee, H. van der (2001). Human Resource Development: de opkomst van een

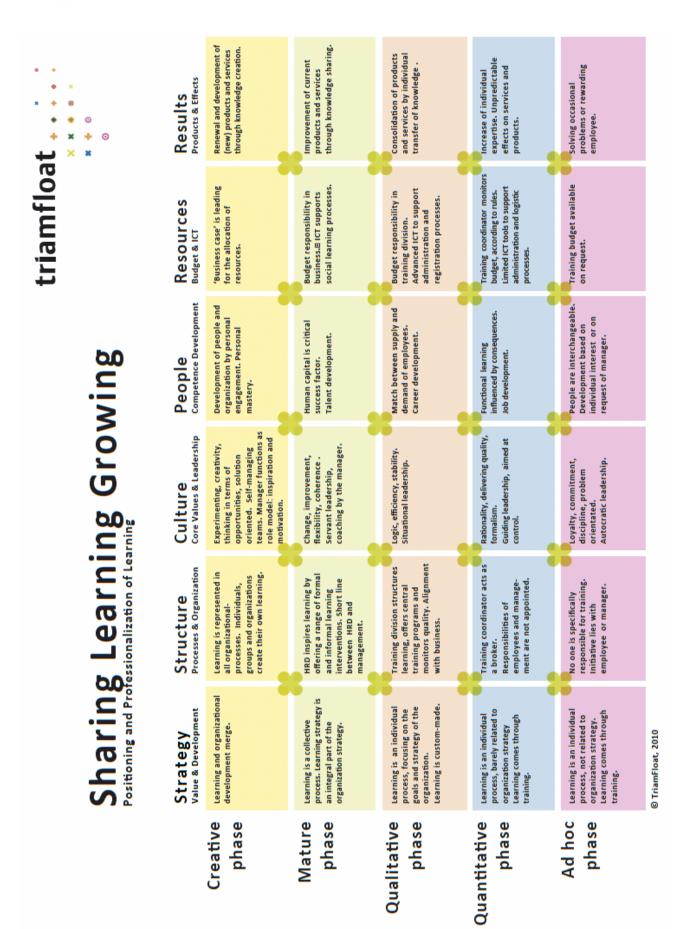
- vakgebied. In B. van Gent & H. van der Zee Eds., *Handboek Human Resource Development*. *Profiel van een Vakgebied*. The Hague, NL: Elsevier Bedrijfsinformatie bv..
- Grip, A. de, & Sanders, J. (2001). Scholing van werkenden in een krappe arbeidsmarkt. *Tijdschrift voor HRM*, 4, 59-84.
- Harris, S.G. (1994). Organizational Culture and Individual Sense making: A Schema-Based Perspective. In *Organization Science*, *5*(3), 309-321.
- Jong, T. de (2010). Linking social capital to knowledge productivity. An explorative study on the relationship between social capital and learning in knowledge-productive networks. Houten, NL: Springer Uitgeverij BV.
- Jovchelovitch, S., & Bauer, M. W. (2000). *Narrative interviewing*. In M.W. Bauer, & G. Gaskell (Eds.), Qualitative researching with text, image and sound (pp. 57–74). UK: Sage.
- Kessels, J.W.M. (2001) Learning in Organizations: A corporate curriculum for the knowledge economy. In: *Futures*, *33*, 479-506.
- Kotter, J.P. (1990). A force for change. How leadership differs from management. NY: Free Press.
- Kotter, J.P. (2007). Leading Change. Why Transformation Efforts Fail. *Harvard Business Review*, 92-107.
- Kotter, J. P., & Schlesinger, L. A. (2008). Choosing strategies for change. *Harvard Business Review*, 86(7-8), 130-+.
- Leary, M.R. (2008). *Introduction to Behavioural Research Methods*. 5th Edition. US: Pearson Education.
- Levin, M. (2004). Organizing Change Processes. Cornerstones, Methods & Strategies. In Boonstra, J.J. (ed.). *Dynamics of Organizational Change and Learning*. UK: John Wiley & Sons Ltd.
- Lewin, K. (1951). Field theory in social science; selected theoretical papers (1st ed.). NY: Harper.
- Martin, J. (2004). Organizational Culture. In N. Nicholson, P. Audia, and M. Pillutla (Eds.), *The Blackwell Encyclopaedic Dictionary of Organizational Behavior* (2nd ed.). Oxford, UK: Basil Blackwell Ltd..
- Martin, J., Frost, P.J., & O'Neill, O.A. (2004). Organizational Culture: Beyond Struggles for Intellectual Dominance. In. S. Clegg, C. Hardy, W. Nord, and T. Lawrence (Eds.). *Handbook of Organization Studies* (2nd ed.). London, UK: Sage Publications.
- Nistelrooij, A.T.M. van (1999). *Collectief Organiseren. Een sociaal-constructionistisch onderzoek naar het werken met grote groepen.* The Hague, NL: Boom Lemma uitgevers.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company: how Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- Onstenk, J. (2004). De culturele dimensie van leren op de werkplek. In HRD Thema, 2(2), 22-31.
- Palmer, I., Dunford, R., & Akin, G. (2006). *Managing Organizational Change. A multiple perspectives approach*. NY: McGraw-Hill Companies Inc.
- Rademakers, M. (2012). Corporate Universities. Aanjagers van de Lerende Organisatie. NL: Kluwer.
- Riessman, C. K. (1993). Narrative analysis. In *Qualitative Research Methods Series*, 30. CA: Sage Publications.
- Ruona, W. E. A. (2005). Analyzing qualitative data. In R. A. Swanson & E. F. Holton III (Eds.). *Research in organizations: foundations and methods of inquiry.* San Fransisco: Berrett-Koehler Publishers.
- Schein, E.H. (1985). Organizational Culture and Leadership. San Francisco, CA: Jossey-Bass.
- Schein, E.H. (1990). Organizational Culture. In American Psychologist, 45(2), pp. 109-119.
- Schwab, D.P. (2005). Research Methods for Organizational Studies (2nd ed.). London, UK: Lawrence Erlbaum Associates.
- Senge, P. M. (2006). *The fifth discipline: the art and practice of the learning organization* (Rev. and updated ed.). New York: Doubleday/Currency.
- Silverman, D. (2006). *Interpreting Qualitative Data* (3rd ed.). London, UK: Sage Publications Ltd.
- Smircich, L. (1983). Concepts of Culture and Organizational Analysis. In *Administrative Science Quarterly*, 28(3), 339-358.
- Swanborn, P.G. (1996). A common base for quality control criteria in quantitative and qualitative reserach. In *Quality and Quantity*, 30(1), 19-35.

- Swanson, R.A., & Holton, E.F. (2009). *Foundations of HRD* (2nd ed.). San Fransisco, CA: Berrett-Koehler Publishers.
- Tjepkema, S. & Verheijen, L. (2009). Van Kiem tot Kracht. Een Waarderend Perspectief voor Persoonlijke Ontwikkeling en Organisatieverandering. NL: Bohn Stafleu van Loghum.
- Verdonschot, S.G.M., & Bommel, P.M.A. van (2004). Van actie naar reflectie bij Philips Semiconductors. Leren stilstaan in een op actie gerichte omgeving. In *HRD Thema*, 2, 33-36.
- Verdonschot, S.G.M. (2009). *Learning to innovate, A series of studies to explore and enable learning in innovation practices*. Dissertation, University of Twente.
- Verdonschot, S.G.M., & Kessels, J.W.M. (2011). Ontwerpgericht onderzoek als innovatiestrategie.. In J. Van Aken & D. Andriessen (Eds.), *Handboek ontwerpgericht wetenschappelijk onderzoek: Wetenschap met effect.* (pp. 377-398). The Hague, NL: Boom Lemma uitgevers.
- Watkins, K. E., & Marsick, V. J. (1996). *In action: Creating the learning organization*. Alexandria, VA: American Society for Training and Development.
- Weick, K. E. (1995). Sense making in organizations. Thousand Oaks: Sage Publications.
- Weick, K.E., & Quinn, R.E. (1999). Organizational change and development. In *Annual Review Psychology*, 50, 361-386.
- Wierdsma, A.F.M. & Swieringa, J. (2011). Lerend organiseren en veranderen. Als meer van hetzelfde niet helpt (3rd ed.). Groningen, NL: Wolters Noordhoff bv..
- Worren, N.A.M., Ruddle, K., & Moore, K. (1999). From Organizational Development to Change Management. The Emergence of a New Profession. In *The Journal of Applied Behavioral Science*, 35 (3), 273-286.
- Yolles, M. (2009). Competitive advantage and its conceptual development. *Business Information Review*, 26(2), 93-111.

8. Appendices

This chapter contains the appendices in which we referred to in this thesis.

8.1. Appendix 1: PPL model



8.2. Appendix 2: Topic list

Deelvragen om beantwoord te zien

- 1. What aspects of a learning culture change in the transition from an individual towards a collective learning culture?
- 2. What interventions can support the change process from an individual towards a collective learning culture?

Voorafgaand aan het interview

- Invullen achtergrondvragen
- Bezwaar opnemen gesprek?

Korte inleiding onderzoek

- o Master HRD
- o TriamFloat
- o Inzicht verkrijgen in hoe organisaties continue veranderen m.b.t. leren en ontwikkelen en wat voor interventies hierbij kunnen worden ingezet.
- o Doel interview: percepties en ervaring cultuur(verandering) m.b.t. professionaliseren van leren

Focussen op succeservaringen!

Aanleiding <organisatie>

- o Boek corporate universities Rademakers
- o Macroontwikkelingen / ontwikkeling academy

Inleiding interview:

- Onderwerp: cultuurverandering m.b.t. leren en ontwikkelen
- o Achtergrondvragen
- o Algemene vragen over cultuur
- o Leiderschap, communicatie, samenwerking
- o Eigen mening/ervaringen
- o Anonimiteit
- Ongeveer 45 minuten 1 uur
- o Terugkoppeling uitgeschreven interview

Algemene vragen

- Hoe kwam leren tot uitdrukking in uw werk/organisatie drie jaar geleden?
- o Hoe werd opleiden en leren ingericht?
- o Hoe is dat nu?
- o Kunt u mij vertellen hoe dit zich in de tussentijd heeft ontwikkeld?
- Welke richting veranderde het leren binnen de organisatie?
- o Wat zorgde er voor dat dit meer/minder gebeurde?
- Wat was de rol van de opleidingsmanager/afdeling/academie hier in? Hoe zou een opleidingsadviseur hier kunnen helpen?
- o Wat waren kritische situaties waardoor dit veranderde?
- o In hoeverre was dit succesvol?

Context: Wat was de context waarop de cultuur veranderde?

Interventions: Welke richting werd er op veranderd en wat werd daar voor gedaan? Mechanics: Welk effect had de gekozen richting en de interventies op de cultuur?

Outcomes: Waar staan jullie nu met betrekking tot het begin?

Verdiepende topics

Cultuur algemeen

Opvatting over wat belangrijk is m.b.t. leren en ontwikkelen veranderd?

- o Waarden: Ik vind het belangrijk dat...
- o Normen: In deze organisatie vind men dat...
- o Wat zorgde er voor dat waarden en normen van u veranderde?
- Welke normen en waarden had de organisatie toen? En hoe is dat nu? In hoeverre heeft uw idee over leren invloed hier op gehad?
- O Wat werd er eerst belangrijk gevonden en hoe is dat nu?

Leiderschap

Het gaat hier om bij wie de verantwoordelijkheid ligt, in welke mate er steun wordt ervaren bij het aandragen van nieuwe ideeën en de persoonlijke ontwikkeling. Er kan onderscheid gemaakt worden tussen direct leidinggevenden en indirecte leidinggevenden. Een participatieve leiderschapsstijl zorgt bijvoorbeeld voor meer betrokkenheid bij de organisatie en bij elkaar.

- Ontwikkeling van stijl van leidinggeven (richting geven/sturend)
- o Verantwoordelijkheid om eigen beslissingen te nemen t.o.v. werk en ontwikkeling
- o Stimulans vanuit leidinggevende om te ontwikkelen

Communicatie

Bij deze vragen gaat het over de communicatie tussen leidinggevende en de geïnterviewde en over de communicatie onderling. Doel van de communicatie om professionaliseren van leren te stimuleren is kennisdeling.

- o Manier van communiceren (taal/afkortingen),
- o Inhoud van communicatie (procedures/zorg/eigen ontwikkeling/ kennis/ ervaring/kletspraatjes)
- o Soort communicatie (ICT middelen/Intranet/nieuwsbrief/LMS).

Samenwerking

Hierbij gaat het om de verandering in de mate van samenwerking en kennisdeling. Tussen...

- o collega's
- o teams
- o leidinggevenden

Toekomst

Hoe ziet u de toekomst van VolkerWessels met betrekking tot leren en ontwikkelen? Wat zou er voor u gedaan moeten worden om het tot een hoger plan te brengen?

Einde interview

- o Heeft u nog onderwerpen waarop u terug wilt komen?
- o Heeft u verder nog toevoegingen?
- Wat vond u van het interview/ heeft u tips voor mij?

8.3. Appendix 3: Invitation expert meeting

Samen leren groeien bouwen

Aan de slag met veranderkundige interventies

Datum: Vrijdag 5 oktober 2012

Tijd: 9.00-12.00 uur

Plaats: TriamFloat

Orteliuslaan 855, Utrecht

Zaal: Volgt nog



Programma

Inleiding

Deel 1

- * Presentatie resultaten interviews
- * Discussie /evaluatie resultaten

Pauze

Deel 2

De top 5 interventies - een nadere analyse Analyse bestaat uit vragen als: Heb ik hier al eens mee gewerkt, wanneer was dat, wat vraagt dat van mij als consultant (competenties)?

Pauze

Deel 3

* Bouwen aan een interventie In groepjes gaan we nog dieper in op een interventie en bereiden we een interventie voor (misschien heb je wel ideeën voor een nieuwe interventie). De kans om het een keer uit te testen!

Afsluiting & reflectie op bijeenkomst



8.4. Appendix 4: Code system

Codes

```
10000 Leadership
11000 Individual responsibility
12000 Organisational responsibility
13000 Directive leadership style
14000 Participative/ coaching leadership style
20000 Communication
       21000 One-sided communication
       22000 Two-sided communication/dialogue
       23000 Open and transparent communication
       23000 Knowledge transmitting
       24000 Knowledge sharing
30000 Collaboration
       31000 Little collaboration
       32000 Much collaboration
       33000 Knowledge sharing
40000 Interventions leadership
       41000 Interventions leadership style
               41100 Feedback and mirroring
               41200 Coaching
               41300 Formal education (theoretical knowledge)
               41400 Selection and recruitment of type of executives
               41500 Peer review groups
               41600 Facilitation of personal development of executive
               41700 Collect type of persons that fit ones leadership style
               41800 Learning by doing
               41900 Facilitate informal moments
               41100 Sharing learning experiences
42000 Interventions responsibility
       42100 Give trust, space and freedom to experiment
       42300 Role play
       42400 Set clear goals and expectations
       42500 Feedback
       42600 Involve organizational members in decision making
       42700 Facilitate personal development
       42800 Kai Zen
       42900 Lean
50000 Interventions communication
       51000 Peer review group
       52000 Dialogue
       53000 Interventions one sided communication and knowledge sharing
               53100 Sharing successes and experiences
                      53110 Through digital media
                      53111 Intranet
                      53112 Website
                      53113 Social Media
               53120 News letters
               53130 In presentation
               53140 Take someone as an example
       53200 Clear documentation of work documents/earlier projects
54000 Interventions two-sided communication and knowledge sharing
       54100 Facilitate formal moments
```

54110 Discuss case

65120 Share successes

54130 Discuss failures

54140 Positive approach

54150 Discuss theme

54200 Facilitate informal moments

54300 Coaching

55000 Interventions open and transparent communication

55100 ...about work

55110 LCD screens

55120 Communication training

55130 Face book

55140 Platform

55200 ...about organizational goals

55210 Encourage collective vision

55220 Campaign with director

55300 ...about failures and successes

55310 Positive approach

55320 Executive is example

56000 Interventions dialogue

56100 Training

56200 Role play

56300 Feedback and mirroring

56400 Direct communication

60000 Interventions collaboration

61000 General interventions for collaboration

60100 Sharing learning experiences

60200 Team building

60300 Process consultation

60400 Communities of Practice

60500 Workshops

62000 Interventions collaboration individual level

62100 One-to-one conversation

63000 Interventions collaboration team level

63100 Knowledge sharing

63110 Work meetings

63120 Changing the work interior

63130 Visiting a project

63200 Team work

63210 Process consultation

63220 Formulate a collective ambition

63230 Working with deadlines

63240 Sharing learning experiences

63300 Team spirit

63310 Team building

63320 Sufficient work conditions

63330 Sharing successes

64000 Interventions collaboration between departments

64100 Knowledge sharing

64110 Meeting with expert

64120 Meeting with different disciplines/type of persons

64130 Involve management

64200 Team work

64210 Top down decision

64220 Formulate core values

64230 Formulate collective ambition

65000 Interventions collaboration between companies

65100 Knowledge sharing

65110 Network meetings

65120 Sharing learning experiences

65130 Change interior

65140 Meeting with colleagues in same function

65150 Accompany colleagues

65200 Team work

65210 Networking

65220 Formulate collective ambition

65230 Establish contracts

65300 Team spirit

65310 Peer review groups/meetings