

# “Contradicting matters”

The mediating effects of time and place independent work on  
knowledge sharing

Master thesis, MscBA, specialization Change Management  
University of Groningen, Faculty of Management and Organization

May 19, 2011

SUZANNE HEIDSTRA

Studentnumber: 1786679

Davidstraat 30

9725 BT Groningen

tel.: +31 (0)50-7506804

e-mail: [suzanneheidstra@hotmail.com](mailto:suzanneheidstra@hotmail.com)

Supervisor/ university

Dr. M.P. Mobach

Supervisor/ field of study

M. van Ooijen

Pentascopie, Groningen

**Acknowledgements:** I would like to thank my supervisor, Dr. M. Mobach for his guidance. Furthermore, Martijn van Ooijen and other colleagues at Pentascopie, for their moral support and last, but not least, my family and friends for distracting me in time of need.

## **Abstract**

The aim of this study is to discover the New World of Work and related factors that contribute to knowledge sharing. Resulting from the established grounded theory, organizations expect that time and place independent work, comprising of a new office layout and the usage of information and communication technology, optimizes knowledge sharing behavior. These factors are underpinned with empirical evidence and a measurement instrument is developed. As this study is part of a longitudinal comparative case study, it performed a pretest, which revealed how interaction in a public sector organization, is currently affected by time and place independent work. The pretest showed that although one of the primary goals of the New World of Work office layout is to enhance informal interaction, its value is disputable. However, the results indicate that ICT might overcome this barrier. In addition, the study has revealed some interesting contradictions between theory and practice.

**TABLE OF CONTENTS**

- 1. INTRODUCTION..... 4**
  - 1.1 RESEARCH FOCUS..... 6
  - 1.2 RELEVANCE..... 6
  - 1.3 RESEARCH QUESTION..... 7
  
- 2. THEORETICAL FRAMEWORK ..... 9**
  - 2.1 KNOWLEDGE SHARING ..... 9
  - 2.2 THE PUBLIC SECTOR..... 11
  - 2.3 METHODOLOGY..... 13
  - 2.4 DATA COLLECTION - INTERVIEW ..... 14
  - 2.5 DATA ANALYSIS ..... 14
  - 2.6 RESULTS..... 15
  
- 3. THE NEW WORLD OF WORK..... 21**
  - 3.1 INFORMAL AND FORMAL KNOWLEDGE SHARING ..... 21
  - 3.2 TIME AND PLACE INDEPENDENT WORKING..... 22
  
- 4. CONCEPTUAL MODEL..... 27**
  
- 5. METHOD..... 28**
  - 5.1 CASE DESCRIPTION ..... 28
  - 5.2 DATA COLLECTION - LOGBOOK..... 32
  - 5.3 DATA ANALYSIS ..... 32
  
- 6. RESULTS..... 34**
  - 6.1 ANALYSIS ..... 38
  
- 7. CONCLUSION..... 40**
  
- 8. DISCUSSION ..... 41**
  
- 9. LIMITATIONS ..... 43**
  
- 10. REFERENCES ..... 44**
  
  
- APPENDIX ONE - INTERVIEW ANALYSIS ..... 52**
  
- APPENDIX TWO - THE INTERVIEWS..... 66**
  
- APPENDIX THREE - THE LOGBOOK..... 67**

## **1. Introduction**

In 2005, Bill Gates argued that technological innovations are changing the world. By means of information and communication technology (ICT) there is a widespread access to information. In his white paper, he points out the urgency and potential of digital working (Gates, 2006). The advancements in information and communication technology are conceived to be the major enabler of change in the nature of work, as information is becoming available independent of time and place (Bajema, Duits, van Heck, & van Baalen, 2007; Veldhoen, 2005). Additionally, according to Child and McGrath (2001), the transition from an industrial economy to a postindustrial economy based on flows of information, has created challenges for organizational design. Consequently, the shift has led to the emergence and focus on knowledge workers (Scarbrough, 1999). In contrast to industrial workers, knowledge workers perform complex tasks that involve large amounts of knowledge and problem solving skills (Benson & Brown, 2007). As environments change rapidly, organizations have to continuously create new knowledge to maintain their competitive advantage (Kang, Rhee, & Kang, 2010). Moreover, if knowledge creation becomes the key to competitive advantage, one can argue that knowledge workers are becoming an even more important asset, as they share their knowledge, skills, and abilities with the organization for which they work (Thompson, 2009). However, organizations are facing retention problems. The age of the workforce is increasing dramatically. Shortly after 2010, the increasing number of elderly is expected to accelerate. From 2010 on, the first baby boomers reach the age of 65 (CBS, 2010). In addition, the highly competitive labor market (Ramlall, 2004) and the different expectations of work by generation Y (Armour, 2005) make it difficult to hold on to critical employees. Although generation-Y'ers (born 1979 – 1994) do want to be provided with directions and managerial support, they also want autonomy in performing their tasks, love freedom and flexibility (Martin, 2005) and are more interested in the work-life balance (Armour, 2005). In order to retain these individuals successfully, they need to find satisfaction in the workplace (Thompson, 2009).

The New World of Work is claimed to be such a flexible organizational form (Bijl, 2009). The New World of Work is a “collective term for initiatives that innovate the organization of work, aimed at improving the productivity and competitive position of organizations and making

optimal use of talent”. Four core work principles are distinctive for the New World of Work (Baane, Houtkamp, & Knotter, 2010, p. 152):

- being able to work time and place independent,
- free access and ability to use and share knowledge, experiences and ideas,
- managing on results,
- and flexible employment relationships.

Although these principles are not new in itself, facilitated by technology they represent a new form of organizing work. The New World of Work organization places its employees in a central position, and offers its employees the flexibility to determine how they work, when they work, with what they work and with who they work (Bijl, 2009). Therefore, the focus of the New World of Work as organizational form is on knowledge workers. Knowledge workers can act on one’s own discretion and eventually can have an influence on their own output. In contrast to a manufacturer who is bound to a fixed production process (Baane, Houtkamp, & Knotter, 2010, p. 41).

However, if the offered flexibility contributes to the expectations of generation Y is questionable. Deery (2008), for example examined the role of work-life balance and employees intentions to stay. In his review, he found that a conflict between work and life could cause both an intention to leave the organization as well as causing conflict with family members and family activities. Similarly, Pérez and Sánchez (2002), state that employees are becoming more productive and there is less turnover and absenteeism if companies provide programs that are more flexible. In contrast, Duxbury, Higgins & Mills (1992), found that working at home significantly increases work hours per week and a greater number of hours of overtime at home. Other downsides of home working were found to be employees feeling less cohesion with coworkers and a fear that as they are less visible, they will be forgotten for promotions and other rewards (Kurland & Bailey, 1999).

## **1.1 Research focus**

Most organizations have realized to invest in their human assets (Lank, 1997) therefore, the New World of Work organization provides the ability to work independent of time and place, and hence flexibility for its employees. Besides the flexibility, it is expected that the New World of Work optimizes cooperation and knowledge sharing. As knowledge is difficult to imitate, knowledge assets might contribute to organizational effectiveness. Additionally, it is the knowledge sharing part that is the critical factor, as successful knowledge transfer is the raw material from which new knowledge is created (Kang, Rhee, & Kang, 2010). Therefore, the focus of this research is on knowledge sharing and how a defining aspect of the New World of Work, 'time and place independent work', influences this. Moreover, as current literature on the New World of Work lies within the profit sector, this study will focus on the public sector as a specific setting. Knowledge sharing in a New World of Work organization is facilitated by information and communication technology and its specific office design. However, public sector organizations are typically bureaucratic and hierarchical organizations that suffer from compartmentalization which make sharing of knowledge perhaps more difficult (Syed-Ikhsan & Rowland, 2004). Although there is considerable evidence that the work environment has a positive influence on knowledge sharing (Heerwagen, Kampschroer, Powell, & Loftness, 2004), this study investigates the mediating role of working from a remote location, within and outside the physical workplace. As in the end the success of a knowledge-based organization will always depend on the willingness of its people to share their knowledge and expertise (Lank, 1997), consequently the last factor under consideration is the usage of the transferred knowledge by a knowledge recipient.

## **1.2 Relevance**

This study will contribute to the existing literature on knowledge sharing by examining the role of time and place independent working and knowledge sharing effectiveness. Although some researches have studied how flexible workplaces (van Meel & van der Voordt, 2000), open offices (Appel-Meulenbroek, 2010; Rashid, Kampschroer, Wineman, & Zimring, 2006; Rashid, Wineman, & Zimring, 2009) and telework (Lee, Shin, & Higa, 2007; Pérez & Sanchez, 2002) on itself can have an influence on knowledge sharing, this specific study investigates the mediating of those variables. Together with organizational theory, this study will provide a broad view on knowledge sharing, which in addition will be translated in a

measurement instrument. The need for a comprehensive measurement instrument is also recognized by Appel-Meulenbroek (2010). She claims that identifying all relevant knowledge sharing factors would create an even better foundation for an assessment. Additionally, both the New World of Work and knowledge sharing, within the public sector as a specific setting has not received much attention (Willem & Beulens, 2007; Steyn & Kahn, 2008). This research will therefore make a significant contribution for established theories on knowledge sharing and additional empirical evidence for the New World of Work. Second, knowledge sharing effectiveness is not mentioned specifically as the intended goal in most of the studies. Instead, terms like cooperation or interaction are used without taking into account if the interactions are effective (Appel-Meulenbroek, 2010). Therefore, this study will also incorporate the transmission of information to a recipient and absorption and transformation by that person or group order to attempt to prove if interactions will lead to knowledge sharing effectiveness. Lastly, this study will be explorative in nature. Exploratory studies are conducted when there is not much information about a subject under investigation (Collis & Hussey, 2003). The aim of this study is to discover the New World of Work and related factors that contribute to knowledge sharing, which eventually results in suggestions for causal relations. Additionally, this study will perform a pretest on these suggestions. Consequently, the pretest will establish a baseline for a longitudinal comparative case study. The posttest, performed after changes being made will be excluded from this study. A longitudinal case study tracks the same people over time and therefore the differences observed in those people are less likely to be the result of other differences. In contrast to cross sectional studies, that measure a single moment in time, longitudinal studies make observing changes, therefore more accurate (Holland, Thomson, & Henderson, 2006). Taking part in such a research may be of great value, as organizations can learn from it (Mobach, 2009).

### **1.3 Research question**

Derived from the research focus and relevance, time and place independent working is expected to have an influence on knowledge sharing. This study will therefore strive to answer the following research question:

*“How does time and place independent working influence effective knowledge sharing in the public sector?”*

In order to answer this question, several sub questions first need to be answered:

- What is knowledge and, how is it shared?
- Which organizational factors promote and inhibit effective knowledge sharing in the public sector?
- What is the mediating role of time and place independent working in relation to knowledge sharing?
- Which recommendations can be made in order to change the current knowledge sharing behavior?

Mobach (2009) proposes a model in which business administration meets architecture. This model can serve as a blueprint for this study. The model suggests that contingencies are seen as the conditions that influence the effectiveness of an organizational structure or as the structure that is most suitable for a particular condition. The influence of contingencies on performance is mediated by intermediary variables. So eventually, contingencies and intermediaries influence performance. Interventions can be derived from the current performance and used for the organization to learn from. As all variables influence each other, the model can be seen as a dynamic process.



Figure 1 The Organizational-Spatial Constellation (Mobach, 2009)

This research investigates how the contingent variable, time and place independent work, influences effective knowledge sharing (performance). The intermediary factor in this case is interaction. Based on this constellation, recommendations will be made. Figure 2 shows the theoretical framework.

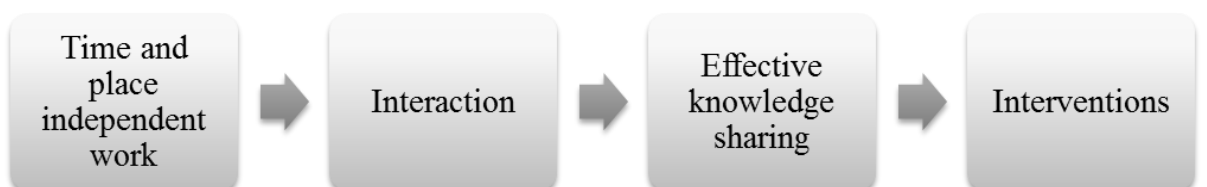


Figure 2 Theoretical Framework



## **2. Theoretical framework**

Knowledge is argued to be one of the most important resources today. However, the knowledge that stems from knowledge resources is the raw material in new knowledge creation, and therefore is an important factor in gaining competitive advantage (Kang, Rhee, & Kang, 2010). As such, it is recognized that it is of significance to identify and develop knowledge, and to find out how it can be managed. The following paragraphs will clarify how knowledge is shared, when it is effective, and additionally, what role it has in the public sector.

### **2.1 Knowledge sharing**

In order to measure the knowledge sharing effectiveness, it needs to be clarified what knowledge is. First, knowledge can be distinguished from information. Several authors argue that knowledge is the information possessed in the mind of individuals. Knowledge is personalized information and by placing meaning and interpreting information, used to make judgments (Alavi & Leidner, 2001). Secondly, the most common distinction in describing knowledge is the distinction made by Polanyi (1966): tacit and explicit knowledge. Explicit knowledge is the tangible knowledge that is formal and systematic (Nonaka, 1991). Explicit knowledge is objective (Anand, Ward, & Tatikonda, 2010) and can be captured and formulated into manuals, procedures, and rules (Stenmark, 2000). Tacit knowledge, on the other hand, is personal. Tacit knowledge is the intangible know-how, mental models and beliefs (Nonaka, 1991). Tacit knowledge exists in people's hands and minds and cannot be easily expressed (Stenmark, 2000). Tacit knowledge is claimed to be intuitive and unarticulated (Lam, 2000). Moreover, tacit and explicit knowledge are argued to interact along a continuum (Nonaka & von Krogh, 2009).

Explicit knowledge has an advantage over tacit knowledge as it is more easily shared (Ipe, 2003). As explicit knowledge is 'formal and systemic', it is argued that it is easily shared through verbal or written interaction (Stenmark, 2000). Explicit knowledge is most typically shared through specifications, standard operating procedures, and data (Anand, Ward, & Tatikonda, 2010). Explicit knowledge can be shared without the 'knower' involved as it can be clearly formulated (Lam, 2000). However, before members of the organization are able to use explicit knowledge, they must convert it into tacit knowledge in order to become familiar with the newly acquired knowledge (Vera-Muñoz, Ho, & Chow, 2006). The sharing of tacit

knowledge is often seen as problematic due to its intangible and individual character. As tacit knowledge resides in people's heads, in order to transfer it, dialogue and interaction between individuals or groups should be encouraged (Gold, Malhotra, & Segars, 2001). Interaction allows the recipient to work alongside the source of the knowledge (Gold, Malhotra, & Segars, 2001; Vera-Muñoz, Ho, & Chow, 2006). Nonaka (1994) also mentions the importance of sharing metaphors and gaining experience during social interaction. According to him social interaction enables to experience a new behavior by interpreting other behavior. Tacit knowledge is typically shared through highly interactive conversations, observation, storytelling, analogies, and shared experiences and activities (Vera-Muñoz, Ho, & Chow, 2006). Interaction also allows for tacit knowledge to be converted into explicit knowledge (Gold, Malhotra, & Segars, 2001). The more explicit knowledge is, the easier it becomes for the organization to share and transfer the knowledge (Kang, Rhee, & Kang, 2010) hence, to transform the knowledge from individual to organizational level (Gold, Malhotra, & Segars, 2001).

Thus, interaction seems to be an important factor that facilitates knowledge sharing and the conversion from tacit to explicit knowledge. As new knowledge is created through interactions, between individuals with different types and contents of knowledge (Nonaka, Toyama, & Byosière, 2003, p. 494/495), both types of knowledge seem to be important in the process of knowledge creation. If the number of interactions is kept to a minimum, most of the knowledge will reside in individuals rather than in the organization (Bhatt, 2002). Chua (2002), confirms this as he found a positive relation between social interaction and the quality of knowledge sharing. Eventually, as the goal of any knowledge sharing activity is to improve the organizational performance, the effectiveness of knowledge sharing is determined by the usage of the transferred knowledge (Davenport & Prusak, 1998, p. 101). Consequently, interaction is expected to result in effective knowledge sharing (Nonaka, Toyama, & Byosière, 2003, p. 492).

For the purpose of this study effective knowledge sharing will be defined as: the ability of the individuals, through interaction, use the transferred knowledge, whereas knowledge can be both tacit and explicit in nature. Interaction is defined as any reciprocal relation between people (Mobach, 2009, p. 216). The following paragraph will elaborate on factors that enhance or inhibit interaction within the public sector.

## **2.2 The public sector**

The environment in which public sector organizations operate can be separated from private sector organizations on various terms. In his study, Boyne (2002), mentions a couple of terms on which a public sector organization can be distinguished from private sector organizations. First of all, he argues that public sector organizations have to deal with a variety of stakeholders each with their own conflicting objectives, unlike private organizations who tend to pursue their own goals. Moreover, the public sector has to deal with political influence who impose frequent changes on organizational policy. Second of all, he claims that transparency is encouraged as the public sector needs to adapt its services to public needs. Lastly, Boyne (2002) argues that there is a somewhat absence of competitive pressures. Although, according to him, public sector organizations remain in a dominant position, they do face competition with private sector organizations in terms of goods (Cong & Pandya, 2003), funding and alternative services (Luen & Al-Hawamdeh, 2001). As a result, the goal of knowledge management in the public sector is likely to differ from the private sector. Relatively few studies focus on knowledge sharing in this specific setting (Steyn & Kahn, 2008; Willem & Beulens, 2007). According to Syed-Ikhsan & Rowland (2004), this is due to the fact that private sector organizations often implement knowledge management for gaining financial revenue, while public sector organizations often implement knowledge management to provide better service to their clients. Developing and providing knowledge in public sector organizations, therefore seems to be a logical consequence (Luen & Al-Hawamdeh, 2001). As a result, the effectiveness of a public sector organization might be determined by the acquisition and dissemination of knowledge (Cong & Pandya, 2003). Moreover, knowledge transfer in the public sector has shown to contribute to organizational performance (Sveiby & Simons, 2002). Accordingly, public sector organizations can be categorized as knowledge intensive firms (Willem & Beulens, 2007).

The necessity for public sector organizations to coordinate and enable knowledge sharing and transfer is emphasized, but it is found that those organizations face some challenges when it comes to knowledge sharing. Public sector organizations are often labeled as being 'bureaucratic' (Boyne, 2002; Olsen, 2006). Bureaucracy on its turn, is characterized as being: "formalized, hierarchical, specialized with a clear functional division of labor and separation of authority, standardized, rule based and impersonal" (Olsen, 2006, p. 2). Within such a hierarchical structure, coordination is achieved through bureaucratic processes that are

executed vertically (Tsai, 2002). As employees move through ranks higher up in the hierarchy, it implies that the more knowledgeable you are, the higher your position is, and hence knowledge becomes a source of power. As a result, employees hoard their knowledge, and logically are not willing to share (Bunderson & Reagans, 2010; Yang J. , 2007). When decision making is held higher in the hierarchy it might also reduce the initiatives for sharing knowledge across functions (Lee & Choi, 2003; Stonehouse & Pemberton, 1999). Compartmentalization, that promotes "silo" behavior, can inhibit effective knowledge management (Gold, Malhotra, & Segars, 2001; Cong & Pandya, 2003). Silo behavior occurs when locations, divisions or functions are so focused on pursuing their own goals that they hoard knowledge (O'Dell & Grayson, 1998). Consequently, the interest in knowledge transfer across units is lost (Tsai, 2002). In addition, the more hierarchical levels within an organization, the more chance there is that knowledge can be distorted (Stonehouse & Pemberton, 1999). Additionally, the level of formalization, that indicates the degree to which decisions and work relationships are shaped by rules, procedures and policies, also appears to have a negative influence on knowledge sharing, as it appears to impede spontaneity and experimentation, and hence prevents the creation of new ideas (Lee & Choi, 2003). As a result, organizational structures that emphasize centralization, regulations, and control may inhibit effective knowledge sharing in organizations (Kim & Lee, 2006). In contrast, evidence about the existence of bureaucracy and formalization in public sector organizations is weak (Willem & Beulens, 2007). Furthermore, Kim and Lee (2006) found that although, employees in public sector organizations felt higher levels of centralization and formalization, the variables did not perceive to influence knowledge sharing behavior negatively.

Even though public sector organizations can be characterized as knowledge intensive, the organizational structure of such organizations might inhibit effective knowledge transfer. Although evidence is weak, compartmentalization, silo behavior, knowledge hoarding and the level of formalization are all argued to influence knowledge sharing across functional boundaries. However, as the New World of Work is presumed to optimize knowledge sharing and interaction, the following methodology and its related result section tries to determine which underlying conditions contribute to that.

## **2.3 Methodology**

Exploratory studies are conducted when there is not much information about the subject under investigation (Collis & Hussey, 2003). As there is relatively little empirical evidence about the New World of Work, this study will be explorative in nature. The primary focus of exploratory research is to explain how a phenomenon works. Most exploratory studies will therefore result in suggestions for causal relations (Collis & Hussey, 2003, p. 10). As mentioned, this study will in addition perform a pretest on these suggestions and hence, establish a baseline for a longitudinal comparative case study. Longitudinal research allows to discover relationships between variables that are not related to various background variables. The posttest performed after changes being made, will be excluded from this study. This longitudinal case study tracks the same people over time and therefore the differences observed in those people are less likely to be the result of other differences (Holland, Thomson, & Henderson, 2006).

Grounded theory seems to be a relevant methodology as it, allows to; ‘develop an inductively derived grounded theory about a phenomenon’ (Collis & Hussey, 2003, p. 73). First, information that is apparent in the data collected, is inductively gained. Second, logical conclusions are deductively being drawn, while thirdly, these patterns and regularities are tested with new data. For this study, interviews are held to detect patterns and regularities, which will be underpinned with an additional literature review. Based on those patterns and regularities, the second part of this study will perform a pretest by means of a measurement instrument.

Additionally, this research strives to combine both qualitative and quantitative methods. The multi-method approach used in this specific study is a sequential mixed method design (Tashakkori & Teddlie, 1998). Within this approach the qualitative and quantitative parts are treated clearly separate and are used in sequence. Part one is qualitative and investigates which variables of time and place independent work are perceived to influence knowledge sharing. These results will be used in order to design a measurement instrument for the quantitative part. The second, quantitative, is a pretest in order to determine how knowledge is currently shared within a public sector organization. A multi-method approach can be used for various reasons. Two of them seem to be applicable for this study: the quantitative and qualitative method complement each other, as the qualitative part elaborates and clarifies on

the research question, and secondly, the qualitative part helps to develop the quantitative method (Molina-Azorin, 2010).

## **2.4 Data collection - Interview**

For the first part of this research, data is gathered by means of semi-structured interviews. Interviews are a method of collecting data in which the participants are asked questions in order to find out what they do, think or feel. As more open ended questions allows the researcher to ask more complex and follow up questions (Collis & Hussey, 2003, pp. 167-168), it seems to be a relevant method in order to explore the New World of Work. As the New World of Work is seen as a collective term for various initiatives, the interviews were set out in order to determine if some generalizations can be made. All interviews were conducted via telephone, due to geographic dispersion of each organization. The duration of each interview revolved around one hour. The participants for the interviews were selected upon their role with the New World of Work. The only precondition was that the organization for which they worked, already had implemented the New World of Work. Seven interviewees were selected, from which five were eventually used in this research. Due to a recording error, one interview could no longer be used. Another interviewee did not meet the precondition, as he was a consultant in the New World of Work area and was excluded from analysis. As currently the focus of the New World of Work lies within the profit sector, the five organizations for which the interviewees work were all leading New World of Work organizations within this specific sector. The participants and organizations partaking in this study are; a manager transformation from the Rabobank, a project manager 'New World of Work' of health insurance company UVIT, a marketing manager from Microsoft, a business alliance manager and a corporate PR manager from HP and a vice president human relations of Ahold. The interview was divided into four basic questions, with several related sub questions. The questions revolved around why, how and what in order to explore the New World of Work. The questions asked served as a guideline, but the interviewees were allowed to deviate, in order to go more in depth about certain issues. The complete interview format can be found in appendix two.

## **2.5 Data analysis**

Grounded theory requires the discovery and creation of codes from interpretation of the data. The codes are labels that allow the qualitative data to be 'separated, compiled and organized'.

More specifically; “axial coding is the restructuring and rebuilding of data into various patterns with the intention of revealing links and relationships” (Collis & Hussey, 2003, p. 273). During analysis the following codes, which reveal various patterns and relationships, were discovered and used:

- Time and place independent work, as the *motive* to start with the New World of Work.
- The *design* of the phenomenon, divided into the office lay-out and ICT
- The *expected results* and its *measures*
- *Expected consequences* of the New World of Work, divided into:
  - *Knowledge sharing*
  - And other *behavioral changes*

The codes eventually resulted in the established patterns and regularities related to the New World of Work. The complete analysis can be found in appendix one.

## **2.6 Results**

### **2.6.1 Motive**

All interviewees characterize the New World of Work, by its office layout and use of technology. They all identify the new office layout as the main motive to start with the New World of Work. Additionally, whether or not as a predetermined objective, all but one expects to directly reduce the facility costs. The new office design creates a situation whereby there are less workplaces than employees. With a lower workplace/employee ratio, less square meters are needed to house all employees, and hence facility costs are reduced. Nevertheless, one interviewee claims that this might not be the case, as he claims; ‘*it is cheaper not to move*’. Additionally, that same interviewee argues that on more longer term, he does expect that facility costs do not increase further; ‘*we built this office to replace the old office, so it does become a cheaper office than the traditional one, but a new office always costs money*’.

### **2.6.2 Design**

The New World of Work office lay-out is stated to be open, transparent or inspiring with flexible or shared desks and activity related workplaces, such as concentration rooms, collaboration rooms and lounges. In addition, two interviewees state that the cafeteria can also be used as workspace. All interviewees state that the new design creates a situation whereby there are less workplaces than employees. Consequently, employees no longer have their own

desk, and hence the employees are forced to work from other locations within or outside the office. Second, technology becomes a necessary facilitator, to access ‘work’ from other locations. Tools mentioned within this digital environment are e.g.; ‘laptops’, ‘mobile phones’, ‘communication servers’, ‘round table facilities’, and ‘wireless networks’.

### **2.6.3 Expected results and measures**

Other outcomes of the World of Work can also be indirectly assigned to the architectural design. As all organizations also allow their employees to work independent of time the interviewees expect an increase in job satisfaction and/or to become a more modern or attractive employer. Working independent of time and place, is presumed to positively influence the work-life balance of the employees, as they become more flexible in organizing their work around their social life. Additionally, as time and place independent work is seen as a flexible term of employment, it is expected to attract new talent. Corporate social responsibility is also often mentioned as an important reason to facilitate time and place independent work. It is expected that the carbon footprint will decrease, as this is partly caused by commuting to the office. In addition, one organization claims that one-third of their employees time is spent on commuting. By allowing time and place independent work, this time can be invested in the organization. Other expected outcomes of the New World of Work are; a better service to clients, less absenteeism, faster decision making, becoming more innovative and increased productivity. When asked about measurements of the expected outcomes, almost all interviewees claim that it is difficult to establish causality between the expected outcomes and the New World of Work. Although, according to one interviewee, the study by Bajema, Duits, van Heck, & van Baalen (2007), performed at their organization did show an increase in productivity<sup>1</sup>. However, the perception about the New World of Work is measured in all organizations. The outcomes of the subjective measurements about work-life balance and/or job satisfaction are positive. *‘Over 40% found the current situation an improvement’*. *‘An increase in job satisfaction ... although we cannot tell if it is because of this’*. *‘90% of the employees finds the New World of Work an important term of employment’* and lastly, *‘employees feel that the engagement (to the company) has increased or I have a better work-life balance’*. For which employees the work-life balance appears to improve, seems to be indefinite. One interviewee claims that younger employees prefer working at the

---

<sup>1</sup> The measurements in this study are based on an online survey (Bajema, Duits, van Heck, & van Baalen, 2007, p. 36)



office. *'We thought young employees would love this new concept, they do, but they love it more to be with each other the whole day'*. While another says; *'we have no indication that generation y is more positive than other generations'*. Another interviewee mentions that also for new employees, working at the office is probably more suitable: *'a starter needs to sit across someone from who he or she can learn'*.

#### **2.6.4 Knowledge sharing**

Three out of five interviewees mention terms like increased knowledge sharing, interaction and cooperation, as a particular goal of the New World of Work. One interviewee claimed; *'the building is designed for connection and cooperation. By means of this concept we wanted to provide employees the ability to meet each other and share their knowledge. We created a lot of spaces meant for encounters. An inspiring environment. A flexible environment and time and place independent work all contribute to that aspect. Before, teams were spread out over different locations and had never met each other. Now we have a building designed for connection and encounters'*. Activity related workplaces are also mentioned as a measure to facilitate sharing and encounters, as it is expected that employees use a variety of workplaces during the day. The interviewee argued; *'look for the best place suitable for your activity at that time ... do not stay the whole day with the same group of colleagues'*. However, the interviewee also mentioned that the employees tend to not use the various workspaces. Besides the activity related workplaces, such as lounges, concentration spaces and team workplaces, the office lay-out for this specific organization is characterized by an open and inspiring office landscape, with flexible workplaces. Additionally, the cafeteria is spread out over three different floors. Finally, ICT is pointed out as simplifier for knowledge sharing; *'it becomes easier to participate in a meeting, to see each other and to share knowledge, from remote locations'*.

Another interviewee developed six principles that are argued to be congruent with the New World of Work, one of which is cooperation or knowledge sharing: *'through this new office environment employees might find each other more easily, because they no longer work within compartments and by means of spontaneous encounters might think of something they would not have thought of otherwise'*. *'Everyone can work anywhere in the building. But you notice that on collaboration floors, the employees mix up, while on individual floors, the employees stay within their department'*. By means of share-point technology, the interviewee expects that it becomes easier to share documents and to find each other. The new office lay

out in this particular organization is characterized by activity related workplaces, collaboration floors, individual floors (or base camps for each department), flexible workplaces and openness. Additionally, this organization is the only organization that measured the perception of its employees in relation to an improvement in cooperation and knowledge sharing; *'People indicate that knowledge flows more easily, are more easily accessible and know from one another what they are doing'*. Besides this subjective measurement, no interviewee could provide results.

Lastly, like the first interviewee, the third argued that one of their motives to redesign was to *'create an environment to meet and cooperate'*. When asked about how the organization reached the goal of increased meetings and cooperation, the interviewee argued; *'by a building designed for encounters and flexible work'*. *'Nobody has an own office, the staff do not have their own office and there are no departments. Although you do see that employees with certain tasks concentrate to a certain part of the building, it is possible that the next day, they are sitting somewhere else'*. This organization also involved the cafeteria as working and meeting space. Besides the ability to meet at the physical location, the interviewee claimed the employees meet each other *'virtually'*. This particular organization also mentions a cultural aspect when it comes to knowledge sharing. Besides openness and transparency in the physical workspace, the interviewee states: *'We share the principle, we share everything, unless. While in contrast many other companies say, we do not share unless. In addition, we try to be open and transparent when it comes to that principle'*.

On the contrary, another interviewee felt that knowledge sharing rather became a challenge, as he argued that knowledge sharing is more than an informative matter; *'Knowledge that you consume digital is with a different intensity than face to face ... make sure the "emotional" element of knowledge is maintained'*. *'It is important to determine when you have face-to-face meetings and for which activities you have virtual meetings'*. The fifth interviewee emphasized that by means of ICT it becomes easier and that there are more possibilities to reach each other. Although, he also mentioned the need to bring knowledge together, by aggregating certain departments; *'as there were giant walls between the departments, there was no cooperation'*, he did not feel an improvement in knowledge sharing: *'it is more that you become used to the fact that you can be reached in various ways, rather than through a face-to-face meeting'*.

### ***2.6.5 Behavioral changes***

Some behavioral changes can also be assigned to time and place independent work, and consequently indirectly to the new office design. For example, all interviewees mention the necessity to manage on output. As employees are no longer visible, they can no longer be managed on how they perform their work, but need to be trusted on the output they deliver. Additionally, two interviewees mention the importance of making agreements with the employees. When employees are no longer ‘visible’, agreements need to be made about the ‘reachability’ (e.g. answering phone calls, returning emails) or about a ‘physical minimum’ of being at the office. Another particularity is the social factor of work in relation to time and place independent work. As possible bottleneck mentioned by four out of five interviewees, is as teams or departments are no longer necessarily near each other, they might lack a feeling of cohesion with the organization.

### ***2.6.6 Patterns and regularities***

Whether directly or indirectly, the new office lay-out seems to be responsible for a large part of the New World of Work outcomes. Directly, as it might reduce the facility costs or prevents an increase. Indirectly, as it facilitates time and place independent work and consequently a perceived improvement in life balance and job satisfaction (although indefinite for whom). Additionally, it appears to influence behavior. Three out of five interviewees expect an increase in cooperation by means of the new office lay out and ICT. Spaces intended for interaction, activity related workplaces and open floors all are argued to have a positive influence on ‘spontaneous’ interactions with indirect coworkers. ICT is often pointed out as facilitator to access coworkers more easily and share knowledge when they work independent of time and place. Furthermore, it is claimed that employees need to be managed on output, as they are no longer visible to their manager. Moreover, the decreased visibility also indicates a possible bottleneck of time and place independent work: as teams or departments are no longer necessarily near each other, the interviewees fear that employees might feel less cohesion with the organization. In order to cope with this issue two organizations address the need to make agreements about the reachability and physical minimum. Furthermore, two interviewees mention that the new office layout is not used as it should be. One interviewee mentions that activity related workplaces or not being used, while another claims that ‘basecamps’ (floors for a particular department) tend to be used by that specific department, rather than by employees of other departments. Another particularity

mentioned by one of the interviewees is that encounters via ICT allow for another type of knowledge sharing than face-to-face meetings. The latter is argued to contain a more emotional element of knowledge sharing, while the first does not.

Consequently, it seems that the ability to interact is enabled by the access of another coworker. The New World of Work office layout, characterized by its collaborative spaces, flexible workspaces and openness, when used correctly, is expected to allow for more knowledge sharing, with a focus on informal encounters outside your department. With less 'physical' barriers and using a variety of workspaces throughout the day, organizations hope that employees mix up, access each other spontaneously, and hence, share their knowledge. ICT provides the necessary tools to access coworkers more easily when they work independent of time and place, but a marginal comment that has to be made is that it might allow for a different type of knowledge to be shared.

### **3. The New World of Work**

One of the defining aspects of the New World of Work is; the ability to work independent of time and place. As shown in the previous section, time and place independent work is facilitated by ICT and a new office layout. Organizations use space more efficiently and consequently hope to lower their housing costs. The main reason for organizations to change their office layout may thus be reducing facility costs (Appel-Meulenbroek, 2010). In addition, time and place independent work allows the office to no longer be the only physical work environment. With the transformed office layout and the usage of ICT organization hope to optimize the knowledge sharing abilities of their employees. With the new office layout, it is expected that employees mix up and hence, spontaneously share their knowledge, while ICT makes it easier to access coworkers. The following paragraphs underpin the issues mentioned in the grounded theory.

#### **3.1 Informal and formal knowledge sharing**

Several authors stress the need for informal networks within organizations (Bate & Robert, 2002; Tsai, 2002). Informal networks often develop naturally (Tsai, 2002) and have the potential to generate new ideas. Spontaneous and unstructured knowledge transfer is “the way employees discover what they know, share it with their colleagues and in the process, create new knowledge for the organization” (Davenport & Prusak, 1998, p. 90/91). Moreover, Tsai (2002) found that interaction on a more informal basis allows units to access new knowledge or new information. However, informal networks can cause inflexibility if there are strong ties between networks. Instead of accomplishing your own tasks, strong relations can cause a commitment to help others considerably (Hansen, 1999). In addition, strong ties within a network can cause familiarity with the existing relations, inhibiting to look outside the network for new knowledge (Gargiulo & Benassi, 2000). Hence, weak ties, allows networks to use their connections to search new knowledge, but they do not have to provide that much help to others in return (Hansen, 1999). Moreover, informal networks contribute to a climate of trust of trust, as strong relationships foster the creation of trust (Reagans & McEvily, 2003). As people depend on their relationships to find information or solve problems (Cross, Borgatti, & Parker, 2002), one of the critical success factors for effective knowledge sharing is that employees must be willing to share and use the knowledge available within an organization (Goh, 2002). Trust and openness are commonly cited as two values that promote

knowledge management behaviors (Gold, Malhotra, & Segars, 2001) and are consequently a fundamental variable in cooperative behavior and willingness to share (Goh, 2002). Moreover, as informal networks are voluntary in nature, it is argued that knowledge sharing behavior cannot be affected by rewards (Jarvenpaa & Staples, 2001). Formal mechanisms, such as training programs, structured work teams and information technology systems, mainly allow explicit knowledge sharing to occur. Formal interventions create a context in which to share knowledge and provide individuals the tools required to do so. Advantages of formal interaction are that it allows to connect a large number of employees and the speed of which the knowledge can be transferred (Ipe, 2003). However, knowledge sharing through formal coordination might limit the improvement of knowledge, as the knowledge that is going to be shared is determined prior (Grant, 1996).

Formal and informal interactions both seem appropriate methods for knowledge sharing. Formal interaction, allows explicit knowledge, hence knowledge on organizational level, to be shared among a larger amount of people and creates a context in which to share that knowledge. Informal interaction on the other hand develops naturally and, allows employees to look for new knowledge outside the formal established links. In addition, informal networks create a climate of trust, which has a positive influence on the willingness to share knowledge. Although formal coordination plays an important role in facilitating knowledge sharing, in line with New World of Work expectations, research indicates that most often knowledge is shared in informal settings (Ipe, 2003).

### **3.2 Time and place independent working**

Working independent of place is often defined as telework. Although there is no agreement in the literature about a definition of telework, Pérez and Sanchez (2002), suggest that there are some common features. They therefore define it as “the complete or partial use of information and communication technology to enable workers to get access to their labor activities from different and remote locations”. Technology allows to access information and knowledge anywhere and hence, to work from remote locations. As the office is no longer the only physical location to work from, the ‘office’ transforms into a transparent place without physical ‘borders’ where, spontaneous encounters will happen more frequently (Baane, Houtkamp, & Knotter, 2010). Instead of fixed and closed workplaces, the New World of Work office is built around flexible workplaces, which enhances time and place independent

working and as claimed, thinking out of the box (Bijl, 2009, p. 50). Activity related workplaces will make it possible for employees to look for the best place suitable for their activity at that time. Activity related workplaces are for example, separate communication, concentration or collaboration rooms (Baane, Houtkamp, & Knotter, 2010). Looking from the New World of Work perspective, time and place independent work comprises of an open office design, flexible and activity related workplaces and telework.

### *3.2.1.1 Open office design*

A research by Rashid, Wineman and Zimring (2009), compared an open office with a more enclosed workspace in terms of visibility. They found that the number of face-to-face interactions per workspace increased significantly in the open office, which has led to believe that an open-plan office with better visibility would help to increase face-to-face interaction. Additionally, several authors refer to the study by Allen and Gerstberger (1973), who found that distance and physical barriers inhibit communication. They suggest that an open office permits employees to control distance, allowing them to determine observe signals that indicated if employees want to work alone or interact. Informal interactions among colleagues typically occur when one person recognizes that the other person is available (Serrato, 2002). However, Becker and Sims (2001) discovered that although employees in open offices interacted more, the duration of those interactions is shorter, while in more enclosed offices interactions were less frequent, but lasted longer. In addition, they found that in enclosed workspaces the topics of interactions were more work-related than in open spaces. Besides visibility, movement is also argued to influence interaction. Backhouse and Drew (1992), revealed that 80% of interactions occur during movement and are unplanned. Moving is perceived as the employee being available and accessible to interact with. A study by Rashid, Wineman and Zimring (2009) revealed that as the visibility of a space increased, so did the number of people moving in the space. Lastly, there is little evidence that natural meeting areas (such as the canteen, the coffee machine or near the copier) enhance interaction (Heerwagen, Kampschroer, Powell, & Loftness, 2004). Nevertheless, the corridor might. Serrato (2002) for example, found that the most common place to interact were offices located on highly used corridors. He further found that corridors with high visibility are more conducive to informal interaction, than corridors with no clear line of sight. However, an open office might impede interaction at corridors, as workstations are also becoming more visible.

Employees might feel uncomfortable talking to others standing next to an open workplace (Rashid, Wineman, & Zimring, 2009).

### *3.2.1.2 Flexible and activity-related workspaces*

Shared desks also perceive to influence interactions. A workspace that is non-territorial, increases movement among employees. Consequently, according to Becker (2007), it increases the likelihood of spontaneous encounters among a wider range of co-workers. Flexible workplaces permit employees to meet different colleagues at different workplaces, instead of always being with the same colleagues in the same room (van Meel & van der Voordt, 2000). In addition, the route between, for example, one's office and the cafeteria might become extended and hence, create more opportunities for spontaneous encounters (Becker, 2007; Mobach, 2009). Logically, flexible workspaces only allow for interaction when employees actually move and use other workspaces (van Meel & van der Voordt, 2000). However, research indicates that informal interactions most often occur when workplaces are near each other. Serrato (2002) for example, found that there is a relation between visibility and clustered workstations; workplaces with high visibility showed more spontaneous encounters. Similar findings are observed by Kraut, Fish, Root and Chalfonte (1993), who discovered that if offices are located close to each other, interactions became more spontaneous. In contrast, as visibility decreases the flexible workspace might make it challenging to interact, as it is more difficult to find the right individual (Brown & Duguid, 2000). Moreover, a particular finding in the study by Rashid, Kampschroer, Wineman and Zimring (2006) is that spontaneous interactions mostly occur at individual workspaces. They revealed that even though three out of the four offices in their research were designed specifically for collaboration, to stimulate interactions outside individual workspaces, only a small percentage of those interactions took place in those environments. However, scheduled meetings often take place in collaborative workrooms (Appel-Meulenbroek, 2010). Logically, rooms designed for collaboration are likely to be better suited for planned interaction.

### *3.2.1.3 Telework*

Telework involves the use of information and communication technology (ICT) in order to work from remote locations (Lee, Shin, & Higa, 2007; Pérez & Sanchez, 2002). One of the main reasons for implementing ICT is that it is claimed that it is supportive to the process of knowledge sharing (Nelissen, Wenneker, & van Selm, 2008). ICT can be characterized by its



richness. The more rich the medium, the more real-time feedback and visual and audio effects it has to offer (Lee, Shin, & Higa, 2007). Depending on the complexity of knowledge, knowledge transfer may need rich ICT (Lee, Shin, & Higa, 2007). However, several authors claim that ICT is unsuitable for tacit knowledge sharing. A survey by McAdam and Reid (2000), showed that only one third of the respondents found technology facilitation suitable for interaction. Tacit knowledge sharing requires proximity between the knowledge sharer and knowledge receiver (Roberts, 2000; Pérez & Sanchez, 2002), as “tacit learning depends on being able to see, hear and observe how others handle different situations” (Becker & Sims, 2001, p. 22). In contrast, Lee, Shin, and Higa (2007), found no difference in the suitability of face-to-face contact and telephone in handling complex knowledge. They claim that tacit knowledge in itself is difficult to share whether face-to-face or via ICT. Explicit knowledge on the other hand can, as it is ‘formal and systemic’, with the use of ICT, be shared worldwide (Roberts, 2000; Yang & Farn, 2009). Moreover, it is argued that telework is less conducive to informal interaction. Apostolou and Mentzas (1999) claim, “tools lack the idea generation capability and serendipity of personal, face-to-face conversations” and hence, would therefore be unsuitable to facilitate informal knowledge sharing. It is even argued that telework leads to less face-to-face interaction, resulting in feelings of isolation (van Meel & van der Voordt, 2000). Nevertheless, as ICT is becoming more rich, such as videoconferencing and virtual project rooms, it may be able to effectively overcome the distance barrier (Lee, Shin, & Higa, 2007)

In conclusion, New World of Work organizations hope via a new open office layout with flexible and activity related workplaces, to increase informal knowledge sharing. Informal knowledge sharing allows to look for new knowledge outside the formal established links and hence helps to develop the knowledge within the organization. Resulting from the literature it seems that spontaneous interactions happen most often when individuals are near each other and at individual workspaces. An open office with high levels of visibility, therefore, stimulates informal interaction. Consequently, natural meeting areas that are visible may also be a suitable location for unplanned encounters. However, although an open office increases the amount of unplanned interactions, those interactions do not necessarily lead to effective knowledge sharing behavior. Within enclosed workspaces, interactions appear to be more work related. Flexible workplaces allow employees to meet different colleagues throughout

the day, however, they also might make it more challenging to find the right individual. Nevertheless, New World of Work organizations expect that it becomes easier to find the right individual by means of ICT. Although, ICT seems to be unsuitable to establish spontaneous encounters, as ICT is becoming richer it might overcome this barrier.

To sum up, it seems that visibility is a moderating factor. Therefore, to answer the research question *'how does time and place independent work influence effective knowledge sharing in the public sector'*, it needs to be determined, to which degree the various locations within and outside the open office, result in interaction via ICT or informal face-to-face interaction. Moreover, as new World of Work organizations expect to enhance knowledge sharing outside the formally established links, it needs to be determined if those interactions are with direct or indirect coworkers and lastly, if those interactions lead to effective knowledge sharing behavior.

#### 4. Conceptual model

Derived from the aforementioned theory, the conceptual model indicates what the moderating effect of visibility on the various locations, ICT usage, and informal knowledge sharing outside the formally established links might be. The open office enables employees to be near each other and consequently, increases the chance for informal encounters. The flexible workplace makes employees more visible for a larger amount of coworkers and, hence increases the chance for informal interaction outside the formally established links. In contrast, decreased visibility might make interaction more challenging as it becomes more difficult to find the right individual. However as ICT might overcome this barrier it is argued that less visibility stimulates ICT usage. In addition, informal interactions do not necessarily lead to effective knowledge sharing behavior. Consequently, it needs to be determined if informal interaction results in knowledge sharing effectiveness (figure 3).

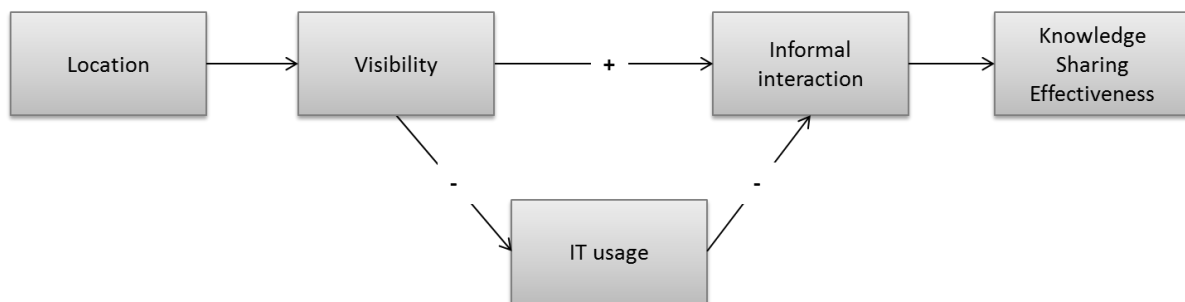


Figure 3 Conceptual model

## **5. Method**

To determine how knowledge sharing is affected by time and place independent work in a public sector organization, the following section will elaborate on the specific organization under investigation, the development of the measurement instrument and the related questions that are formulated and need to be answered, in order to provide an answer to the research question. As this study performs a pretest, the criterion for the organization under investigation was that it had to be a public sector organization, with ambitions to become a New World of Work organization. The police force in this research is on the verge of redesigning according to the New World of Work principles and consequently seems to be a suitable organization to research. The community force in the research is planning to redesign this year.

### **5.1 Case description**

Between 1990 and 1994 the Dutch police reorganized into 25 separate regional police forces and the 'Korps Landelijke Politie Diensten' (KLPD) ([www.politie.nl](http://www.politie.nl), 2008). This police force includes the municipalities of 6 cities. This area covers 357 km<sup>2</sup>, with over 900,000 inhabitants and consists of 6,000 police officers. This force divided itself into 5 districts and 32 community teams. The scope of a district consists of several community forces, whereas each community force is in their territory responsible for public order and safety (Bureau communicatie, 2011). Community policing (in Dutch 'Gebieds Gebonden Politie'), is based on preventive and proactive policing, with wide-ranging police duties, focusing on problem solving. The police needs to be easy accessible to civilians for problems in the area of security and inconveniences. Through integration within the neighborhood, the police officer gains knowledge about the problems in that area and deals with it before it escalates (Straver & Ulrich, 2008).

#### *Positions and roles*

Each community is managed by a community chef who has the formal responsibility for the team and who decides on the priorities. Every community team is obligated to work on the corps priorities by means of targets. These priorities come top down and are divided among each community force. Examples of these priorities are; robbery, pickpocketing and troubled youth. The capacity manager makes sure that there is a detailed insight in workload (amount

of incidents, reports and events) and that there is a fit between the workload and amount of employees.

Within each community force, three executive functions can be distinguished. First, there is a basic team. Each basic team takes care of monitoring, prevention, traffic problems, simple detective work, providing help and making sure laws and rules are obeyed. The basic team also provides daily police surveillance as it is very important to prevent violation and crimes and to increase the chance of a criminals being caught. The basic team consists of officers, generalists, professionals and project leaders. Generalists do much the same work as an officer, but are more experienced and are therefore more widely employable. Professionals are the sergeants, who besides taking part in the basics team duties, also work on priorities. Project leaders are managing the team. A project leader is an inspector or sergeant who also works on the priorities, but on a more short term project basis. Such projects eventually lead to tasks, which are executed by the team members. In addition, the project leader is an assistant public prosecutor (Bureau communicatie, 2011). The difference between a project leader scale eight and nine lies within the ability to manage. Scale 9 is qualified to manage or lead a team, while scale eight is not. The basic team can appeal to the criminal investigation department if cases are too complicated, too time consuming, extend the boundaries of the community or if expert knowledge is needed. The second function of the executive force is 'emergency assistance'. This duty is also performed by the basic team, but rotates among the different community forces in each district. Emergency assistance is the assistance provided if there are life-threatening situations, dependence, helplessness and the threat of escalating situations. The service patrols 24hours a day in between cases of emergency ([www.politie.nl](http://www.politie.nl), 2008). Third, is the function of community officer; this function lies under the direct supervision of the community chef. The main role of the community officer is to know and to be known. Therefore, this officer participates in networks of civilians, entrepreneurs and professionals, such as schools and government agencies. By means of these networks, a community officer gains insight in what is happening in the community, and becomes known as a trustworthy representative of the police force. The community officer brings in proposals for activities in their neighborhood to the unit chief, who prioritizes these assignments. Established priorities should be included in the work preparation of the basic team and executed by that team (Kop & Klerks, 2009). Figure 4 shows the organogram.

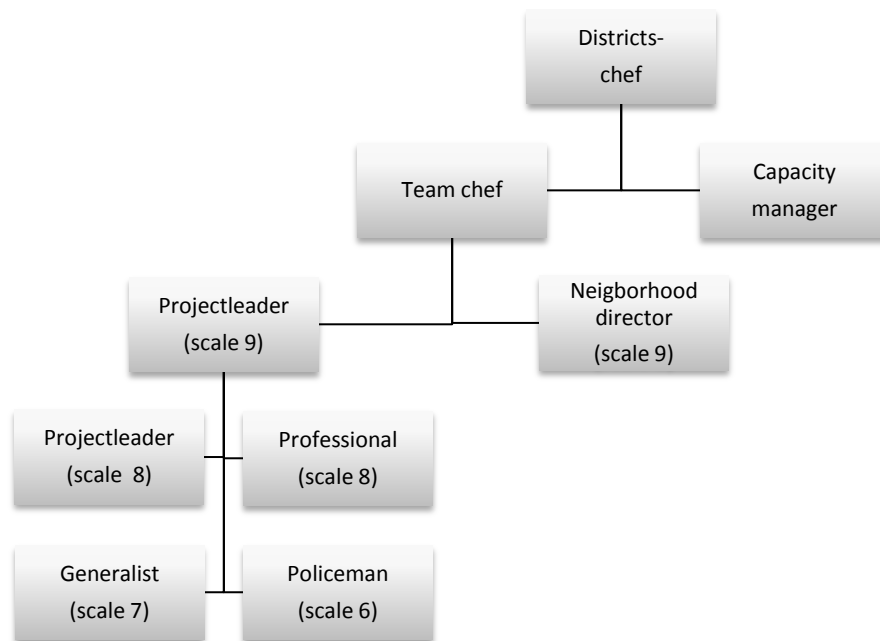


Figure 4 Organogram

### *Importance of knowledge*

In order for a police officer to perform his or her duty, the officer needs a considerable amount of knowledge. Police officers are therefore argued to be knowledge workers as they need to access, integrate and use knowledge in order to execute their duties (Luen & Al-Hawamdeh, 2001). According to van Laere (2005) this knowledge revolves around; juridical knowledge (laws, local regulations), internal procedures (how to register a crime), operating knowledge (handling a gun, questioning) its power (when am I allowed to take someone into custody), corps priorities (which crimes deserve more attention) and executive knowledge (what are the hotspots in my area). In addition, a distinction can be made between explicit and tacit knowledge. Explicit knowledge is used as a guideline for police actions and decision making and is captured in the form of documents (e.g. doctrines, police general orders, standard operating procedures). Tacit knowledge includes the competences, experience and skills of police officers (Luen & Al-Hawamdeh, 2001). Knowledge of persons, situations, norms and processes determine what happens, it is the foundation of being able to execute the daily duties (Welten, Bik, & Gunther-Moor, 2005). During a regular day in police practice, officers continuously deliberate, whether via briefings or spontaneously; when officers gather new information about something or someone, they attach it to their already existing knowledge, which together forms a new whole. Based on the newly acquired knowledge they execute their tasks (van der Torre & van Harmelen, 2007, p. 382). ‘Intelligence led policing’

(ILP) is closely related to this principle. The idea behind ILP is to continuously, and systematically use information in order to reach better results. Based on the gathered information all primary processes are organized. Although this process seems logical for a police force, in practice, ad-hoc reacting to incidents seems to dominate. Better insight in underlying problems enables the police to intervene early, therefore less ad-hoc responding to incidents, but proactive and result oriented (Kop & Klerks, 2009).

#### *Police and the old office lay-out*

Currently, the office lay out of the community force is typical cellular. At the entrance of the building is the front desk. The front desk serves primarily for the public as it is used to take declarations. Secondly, at the entrance there is a small control room. This station needs to be occupied by at least two persons. Additionally, on the ground floor several small cellular offices are found. Most of these offices are used shortly if the emergency assistance team needs computers. On the first floor, neighborhood directors most often occupy the two cellular offices. Each cell houses approximately 8-10 desks. Within each cell, walls are being placed that act as borders. On the second floor, a briefing room is situated. Besides briefings, this room is used for meetings.

#### *Police and the new world of work office lay-out*

Every year the force invests millions to keep their offices in optimal condition as the offices are used 24hours a day, very intensively. The police force is considering implementing a New World of Work office layout, as the building from the community force needs to be renovated. The housing department found that currently 50% of the desks are not in use. Using the office space more efficiently allows the force to economize on these costs. Besides flexible workplaces, the new office layout is characterized by a 'bright and spatial environment'. Types of activity related workplaces are; communication rooms, writing rooms, concentration rooms and a briefing/meeting room. Further, it is indicated that staff and supportive functions get their own offices. As the police is working more proactive and result oriented, they feel there is a need for more cooperation between the several types of functions and their different competencies. The new office lay out is argued to contribute to achieve more cooperation, due to its open and flexible structure. Tools that are considered at this point are SharePoint and optimizing current ICT, such extending the usage of PDA's.

## **5.2 Data collection - Logbook**

The data was collected during a week, by means of a logbook. During this week (five shifts), 25 employees were asked to fill in a logbook about interaction. In the end, eight employees handed useable logbooks. Although asked to fill in the logbook for five shifts, one participant handed in 11, while another turned in 3 logbooks. Due to the limited amount of data gathered, all of the interactions (also those that were incomplete) are included in this research.

In line with the theoretical framework, the participants could indicate how the interaction took place (face-to-face or via ICT), if the interactions were planned or spontaneous (formal or informal interaction), where the interaction took place (at locations within the building or outside the building) and with whom those interactions took place (inside or outside own team). Through observation, work locations were identified. As with every office, there are locations such as desks, the cafeteria, the copier, hallways and so on. Specific for this community force, other locations that are identified are the front desk, the control room, and the briefing/meeting room. In addition, work is performed on the streets.

As the effectiveness of knowledge sharing is determined by the usage of knowledge, one process was indicated. When the employees had interactions about 'nuisance', it should have been a cue to fill in the logbook. This process was chosen after careful consideration and in agreement with the organization. One of the main priorities for this police force is to "increase the objective and subjective feeling of safety by decreasing nuisance and crime". Selecting a process, allows to distinguish between work related and social interaction. Eventually eight categories related to nuisance and interaction were inductively determined. The logbook can be found in appendix three.

## **5.3 Data analysis**

The data gathered will be analyzed with descriptive statistics. As the organization under investigation, it is not a New World of work organization yet, the analysis will focus on current knowledge sharing behavior and to what degree this is affected by New World of Work principles. Derived from the conceptual framework the following questions will provide an answer to how informal knowledge sharing is currently affected by various (remote) locations and the usage of ICT.



Whether the interactions are planned or informal, if the number of interactions is kept to minimum, knowledge will reside in the individual rather than in the organization (Bhatt, 2002). Consequently, the first question that needs to be answered is; ‘what is the total amount of interactions?’. Moreover, New World of Work organizations hope for an increase in informal interaction, as it allows to create new knowledge for the organization. By means of the new office layout, which is characterized by its openness and flexible and activity related workplaces, they hope to increase the chance for spontaneous encounters. The research by Rashid, Wineman and Zimring (2009), indicated that an open office increased the number of face-to-face interactions per workspace. Additionally, Serrato (2002), found that corridors with high visibility are more conducive to informal interaction. Flexible workplaces permit employees to meet different colleagues at different workplaces, instead of always being with the same colleagues in the same room (van Meel & van der Voordt, 2000). However, flexible workspaces only allow for interaction when employees actually move and use other workspaces (van Meel & van der Voordt, 2000). Consequently, it needs to be determined which types of workplaces are currently used and accordingly if it permits planned or informal interaction. Additionally, as informal methods allows to access new knowledge (Tsai, 2002), the third question under consideration is ‘with who the interactions are’ and consequently if these interactions are indeed more formal or informal. Besides the new office layout, time and place independent work is characterized by its ICT usage. ICT may become a necessary means to share knowledge from the remote locations within and outside the organization. As ICT is becoming more rich, it may be able to effectively overcome the distance barrier (Lee, Shin, & Higa, 2007). Consequently, it is of importance to find out if employees currently work from remote locations and to determine if ICT is a more formal method for knowledge sharing. Hence, it needs to be established if ICT is currently used and if those interactions are indeed more planned in nature. To prove if ICT usage can facilitate knowledge sharing outside established links, it needs to be determined if the interactions via ICT more often occur within a team or also facilitates interaction outside the team.

In conclusion, to answer “*How time and place independent working influences effective knowledge sharing in the public sector?*” it needs to be determined how informal knowledge sharing is currently influenced by visibility as the employees work from remote locations within as well as outside the office. By means of the questions formulated in this section, the following paragraph explores the current situation of knowledge sharing within this community force.

## 6. Results

The measurement accounted for 111 interactions among eight employees. On average this accounts for approximately 14 interactions per person and which is almost three interactions per shift. Of these 111 interactions, 90 are useable as for the other 21 interactions one or more variables are missing. 73% of the participants are male and more than half of the participants is aged over 50. As shown in table 1, differences can be identified amongst the eight participants. While one participant interacted with a frequency of 30, the lowest amount of interaction indicated is 5. The interactions occurred during 26 day shifts, 5 evening shifts and 3 night shifts.

Table 1 Amount of interactions per participant

Logbook												
Day	1	2	3	4	5	6	7	8	9	10	11	Total
Participant 1	1	1	1	3	1	-	-	-	-	-	-	7
Participant 2	1	1	1	1	1	-	-	-	-	-	-	5
Participant 3	4	3	1	3	2	2	3	2	2	2	2	26
Participant 4	1	1	1	2	-	-	-	-	-	-	-	5
Participant 5	5	5	4	4	5	4	3	-	-	-	-	30
Participant 6	1	2	3	-	-	-	-	-	-	-	-	6
Participant 7	4	3	3	1	6	4	1	3	-	-	-	25
Participant 8	3	1	1	1	1	-	-	-	-	-	-	7
<b>Total</b>												111

The participants could indicate about which category with regard to nuisance they interacted. Almost 43% of the interactions are about involving civilians in fighting nuisance, 16.2% revolves around making a notification of nuisance and 12.6% about involving a care institution. A couple of interactions mentioned with regard to nuisance were about surveillance, repressive action and correcting behavior (table 2).

Table 2 Categories

Category	Frequency	Percent
Involving civilians	47	42,3
Involving care institution	14	12,6
Writing interventions or criteria	3	2,7
Making a notification of nuisance	18	16,2
Surveillance	4	3,6
Repressive action	6	5,4
Correcting nuisance	8	7,2
New cooperation	11	9,9
Total	111	100,0

Both the office and on the streets seem to be the most occurring place for interaction. At the office, natural meeting places, such as the cafeteria or the coffee machine did not account for any interaction. Moreover, the meeting room accounted for one interaction. Consequently, the most occurring place for interaction at the office is at one's own or else's work desk. In general, the interactions at the office and on the streets are predominantly informal in nature. Additionally, two-third of the total amount of interactions is with individuals outside the organization, while one-third of the interactions is with direct or indirect coworkers (table 3). The method of interaction (via ICT or face-to-face) does not seem to account for huge differences, whether the interactions were formal or informal (figure 5).

For informal interactions outside formally established links, a distinction needs to be made between individuals not employed at the organization and individuals within the organization but from another team. The results show that encounters on the streets with civilians, care institutions and others are only informal in nature. Seventeen of these encounters relate to the category 'involving civilians to decrease nuisance'. Another five of these informal encounters relate to correcting misbehavior. Also at the office, most informal interactions are with civilians and other individuals outside the organization. Again, the majority of these interactions relate to the category 'involving civilians to decrease nuisance'. On the streets these informal interactions mostly occur face-to-face, while at the office mostly via ICT.

Table 3 With who and how versus location and method

With who	How	At the office		On the streets		Total
		Face-to-face	ICT	Face-to-face	ICT	
Other team	Planned	-	1	-	-	1
	Spontaneous	-	3	-	2	5
	Total	-	4	-	2	6
Own team/ Community officer	Planned	1	2	1	-	4
	Spontaneous	1	6	5	-	12
	Total	2	8	6	-	18
<b>Total</b>		<b>2</b>	<b>12</b>	<b>6</b>	<b>2</b>	<b>22</b>
Civilian and others	Planned	3	5	-	-	8
	Spontaneous	8	17	28	7	60
<b>Total</b>		<b>11</b>	<b>22</b>	<b>28</b>	<b>7</b>	<b>68</b>
		<b>13</b>	<b>34</b>	<b>34</b>	<b>9</b>	<b>90</b>

Informal interaction with individuals from within the organization accounts for a small portion. A distinction can be made between direct and indirect coworkers. As shown in table 3 whether or not informal, there is a total of 18 interactions with direct coworkers and 6 with indirect coworkers. Independent of the location, the informal encounters with indirect coworkers only occurred via ICT. Informal interaction with direct coworkers is also most often established by ICT, hence one informal encounter was face-to-face and at the office. In addition, the other face-to-face interaction at the office was planned, and took place at the meeting room.

There is weak evidence that spontaneous interactions are more often face-to-face than via ICT. As figure 5 shows, only a small difference can be detected between spontaneous interactions that are face-to-face or via ICT. For planned interactions the opposite seems to be applicable, although the planned interactions are more often via ICT, there is only a small variance shown between face-to-face interactions and via ICT. Additionally, almost two-third of the interactions that occurred via ICT was with individuals outside the organization.

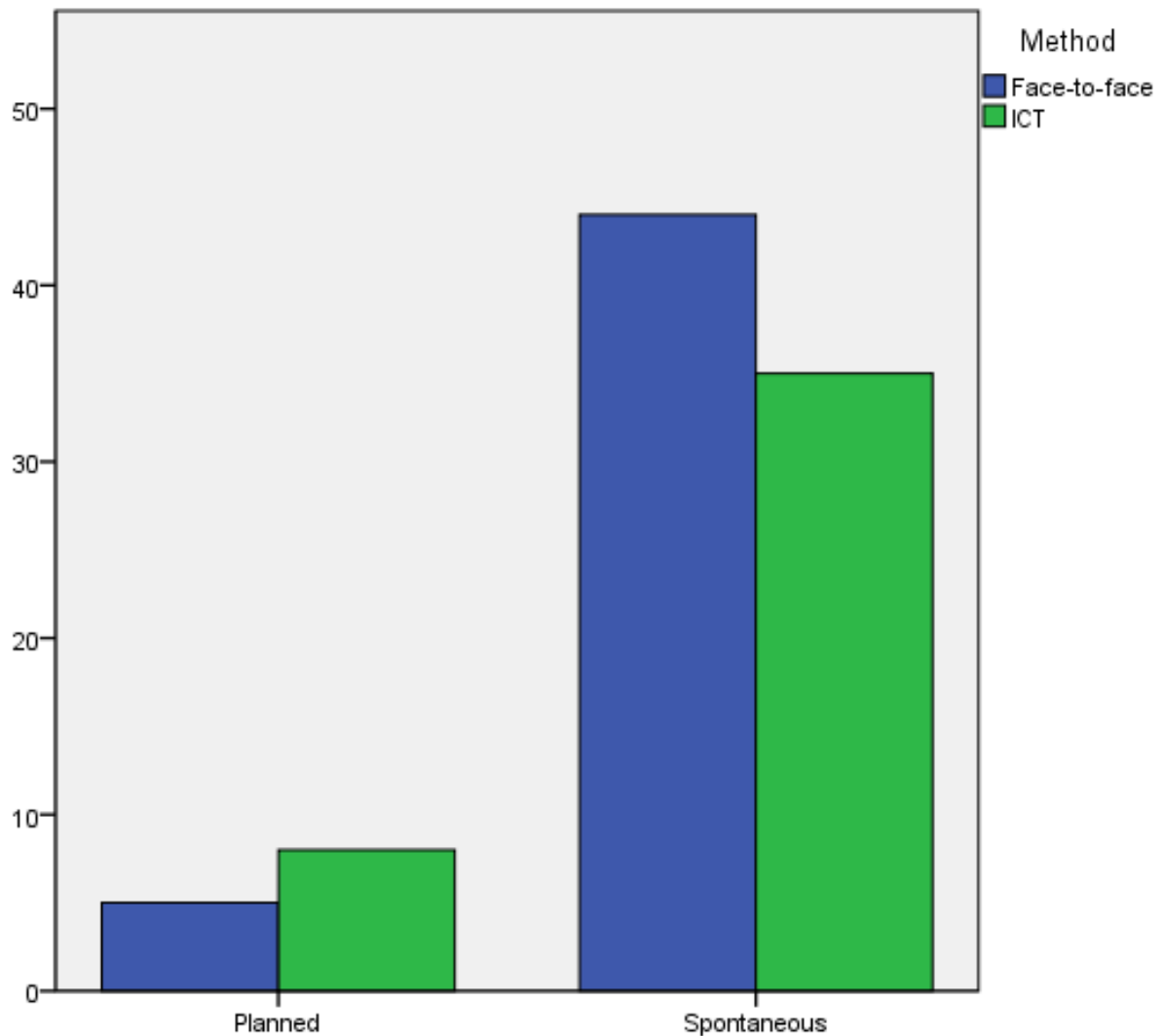


Figure 5 Spontaneous/planned interactions versus face-to-face/ICT

## 6.1 Analysis

Surveillance can be argued to be the core business of the police force as it makes the police visible for civilians (Berg, Fekkes, Geveke, Pijnappels, & Ven, 1995). Additionally, the main role of the community officer is to know and to be known in the community (Bureau communicatie, 2011). Logically, the most occurring place for police officers to interact is on the streets. Additionally, a substantial amount of the knowledge is gathered in an informal setting and from outside the organization. Two-third of all interactions was with civilians, predominantly spontaneous in nature and ensued most often face-to-face, which suggests that police officers immediately tend to respond to incidents. This outcome is very much in line with the study by Kop and Klerks (2009), who argue that ad hoc responding to incidents seems to dominate the work of a police officer. However, the results indicate that the knowledge gathered, is hardly shared among coworkers. The necessity to share knowledge among the police officers is advocated by Kop and Klerks (2009). Sharing knowledge allows gaining insight in underlying problems, enabling the police to proactively intervene. One-third of the total amount of interactions is among the police officers themselves, whereof, only 18 measurements accounted for interaction among direct coworkers and 6 with indirect coworkers. Moreover, most of these interactions are established via ICT, only two interactions occurred face-to-face at the office. Natural meeting places, such as the cafeteria or the coffee machine also did not account for any interaction. Apparently, during breaks no work related interactions happen. Additionally, the results show that there was only one planned interaction, which suggests that little explicit knowledge was shared. Explicit knowledge in a police organization is used as guideline for police actions and for decision-making, and therefore is considered of great importance (Luen & Al-Hawamdeh, 2001). As officers most often perform their work on the streets, it seems logical that there are relatively few encounters at the office. Moreover, a substantial amount of the spontaneous encounters appeared to happen via ICT. In contrast to what Apostolou and Mentzas (1999) claim, that ICT lacks the serendipity of personal, face-to-face conversations, this result suggests that ICT does allow for informal knowledge sharing. Although these interactions often occur with civilians, a small amount can also be dedicated to interaction with coworkers. However, looking at the related category it becomes clear, that these interactions revolve around making notifications of nuisance in a database. One would expect that this type of explicit knowledge sharing would occur more often, as knowledge of persons and situations are the foundation to execute daily duties (Welten, Bik, & Gunther-Moor, 2005).

The police force can be characterized as a knowledge intensive firm, as knowledge is the core of being able to effectively execute police tasks (Welten, Bik, & Gunther-Moor, 2005). However, the results have shown that the police officers hardly share their knowledge. Although a substantial amount of knowledge is gathered outside the organization, formal and informal interaction between officers is lacking. As officers perform a substantial amount of their duties on the streets, it seems logical that the office is not their primary location for interaction. Moreover, it explains that most interactions between the officers had to be via ICT. Therefore, to encourage knowledge sharing behavior; the police organization might have to consider investing in advanced information and communication technology. Moreover, as the results indicate that only one planned interaction took place, these more formal types of knowledge sharing must also be stimulated. Lastly, as criminals extend the boundaries of a community it is recommended to stimulate knowledge sharing with police officers outside the community force. In conclusion, it seems that the New World of Work office layout would not make a significant contribution to knowledge sharing activities for this specific organization.

## **7. Conclusion**

This study has provided insight in the New World of Work and discovered which factors related to time and place independent work influence informal knowledge sharing behavior. Although one of the main reasons for New World of Work organization is to optimize informal knowledge sharing behavior, it seems that another main motive, facilitating time and place independent work, causes this effect to be mediated. As individuals are allowed to work from remote locations, it is logical that the office is no longer their primary work location and hence, ICT becomes a necessary means to establish interaction. Moreover, in contrast to literature, this research has found that ICT is able to facilitate informal interaction. However, as this study is a pretest, further research should provide answers that are more conclusive.



## 8. Discussion

This research has found some surprising contradictions between theory and practice, which will be further elaborated upon. First, besides the expected savings on facility costs, one of the main motives for organizations to start with the New World of Work is to offer its employees a better work-life balance. In theory, it is indicated that new talent, demands freedom and flexibility. As time and place independent work is seen as a flexible term of employment, organizations hope to become an attractive employer and hence, attract new talent. In practice however, as indicated by several interviewees, measurements revealed that starters and young employees prefer working at the office. Moreover, four out of five interviewees mention as possible bottleneck, that employees might even feel less commitment to their organization, as teams or departments are no longer necessarily near each other. This suggests that one of the main motives for organizations to start with the New World of Work is contradicting itself. Second, New World of Work organizations expect that via their new office layout, characterized by its transparency and various types of workplaces, interactions outside the formally established networks are stimulated. With less physical barriers and using a variety of workspaces throughout the day, it is expected that employees mix up, access each other spontaneously, and hence, share their knowledge. Derived from the analysis however, it seems that the value of the office to enhance informal interaction becomes disputable. As individuals work from remote locations, it is arguable that the office is no longer the primary location for interaction. Moreover, as claimed in aforementioned theory ICT is unable to establish spontaneous encounters. Conversely, the findings suggest that ICT does allow for informal interaction. Consequently, although the value of the office to enhance informal interaction is questionable, future research is warranted to further investigate if ICT can overcome this barrier and how informal interaction can be fostered and stimulated by social arrangements. Additionally, it seems that New World of Work organization expect, that a change in context hence the office layout and ICT usage, results in effective knowledge sharing behavior. However, they therefore may neglect some other important variables mentioned in theory that have an influence on knowledge sharing behavior which may even impede interaction. The specific organization under investigation, for example, seems to be a typical bureaucratic organization, where employees move up the hierarchy by ranks. Consequently, power is an extant variable, resulting in possible silo behavior and knowledge hoarding. Silo behavior occurs when locations, divisions or functions are so focused on

pursuing their own goals that they hoard knowledge (O'Dell & Grayson, 1998). Accordingly, as formulated by Brown and Duguid (1991) “though the door is open, it is wiser not to cross the threshold”. Hence, although the office layout may have a positive influence on interaction, it is recommended to explore how other variables can influence knowledge sharing behavior.

## **9. Limitations**

As with any research, some limitations can be identified. It needs to be acknowledged that only a limited amount of employees took part in the measurement. Moreover, several positions higher up in the hierarchy (and hence that might be more knowledgeable) did not participate in this study. At the start of measurement 25 employees were asked, during a period of two weeks, to participate and were provided with logbook. After two weeks, only 2 participants had turned in their logbooks. Therefore, several measures were undertaken to increase the response rate. Consequently, the participants received another 3 weeks to turn in their logbooks, moreover, the participants received emails, notes were posted on the coffee machine, and the participants were asked in person to provide the logbooks. The measures eventually resulted in an additional 6 participants. At time of measurement, another large-scale employee satisfaction measurement was undertaken, which might explain the low response rate. Furthermore, during observations at briefings and lunches it appeared that there were more interactions about nuisance than shown during measurement. The limitations indicate that the logbook was not filled in correctly. Nevertheless, as this study tracks the same people over time, the differences observed are not likely to be the result of those limitations. However, for future research it is recommended to perhaps study the participant by observations rather than via a logbook.

## 10. References

- Alavi, M., & Leidner, D. (2001). Knowledge management and knowledge management systems: conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
- Allen, T., & Gerstberger, P. (1973). A field experiment to improve communications in a product engineering department: the non-territorial office. *Human factors: the journal of the human factors and ergonomics society*, 15(5), 487-498.
- Anand, G., Ward, P., & Tatikonda, M. (2010). Role of explicit and tacit knowledge in Six Sigma projects: An empirical examination of differential project success. *Journal of operations management*, 28(4), 303-315.
- Apostolou, D., & Mentzas, G. (1999). Managing corporate knowledge: a comparative analysis of experiences in consulting firms (part 1). *Knowledge and process management*, 6(3), 129-138.
- Appel-Meulenbroek, A. (2010). Knowledge sharing through co-presence: added value of facilities. *Facilities*, 28(3/4), 189-205.
- Armour, S. (2005). Retrieved on November 23, 2010, from USA Today: <http://www.usatoday.com/>
- Baane, R., Houtkamp, P., & Knotter, M. (2010). *Het nieuwe werken ontrafeld: over bricks, bytes and behavior* (1e ed.). Assen: Koninklijke van Gorcum.
- Backhouse, A., & Drew, P. (1992). The design implications of social interaction in a workplace setting. *Environment and planning B: planning and design*, 19(5), 573-584.
- Bajema, R., Duits, F., van Heck, E., & van Baalen, P. (2007). Developing and exploring dimensions for studying information work a case study. *Rotterdam school of management*, 1-21.
- Bate, S., & Robert, G. (2002). Knowledge management and communities of practice in the private sector: lessons for modernizing the national health service in England and Wales. *Public administration*, 80(4), 643-663.
- Becker, F. (2007). Organizational ecology and knowledge networks. *California management review*, 49(2), 42-61.

- Becker, F., & Sims, W. (2001). *Offices that work: balancing communication, flexibility and cost*. New York: Cornell University International workplace studies program.
- Benson, J., & Brown, M. (2007). Knowledge workers: what keeps them committed; what turns them away. *Work employment society*, 21(1), 121-141.
- Berg, A. v., Fekkes, M., Geveke, H., Pijnappels, N., & Ven, G. v. (1995). *Politia nova: surveillance op maat*. Den Haag: B&A Groep Beleidsonderzoek & - Advies BV.
- Bhatt, G. (2002). Management strategies for individual knowledge and organizational knowledge. *Journal of knowledge management*, 6(1), 31-39.
- Bijl, D. (2009). *Aan de slag met Het Nieuwe Werken*. Zeewolde: Par CC.
- Boyne, G. (2002). Public and private management: what's the difference? *Journal of management studies*, 39(1), 97-122.
- Brown, J., & Duguid, P. (1991). Organizational learning and communities-of-practice: toward a unified view of working, learning and innovation. *Organization science*, 2(1), 40-57.
- Brown, J., & Duguid, P. (2000). *The social life of information*. Boston: Harvard business school press.
- Bunderson, J., & Reagans, R. (2010). Power, status and learning in organizations. *Organization science*, 1-13.
- CBS. (2010, December 17). *Tempo vergrijzing loopt op*. Retrieved on May 11, 2011, from <http://www.CBS.nl>
- Child, J., & McGrath, R. (2001). Organizations Unfettered: Organizational Form in an Information-Intensive Economy. *The Academy of Management Journal*, 44(6), 1135-1148.
- Chua, A. (2002). The influence of social interaction on knowledge creation. *Journal of intellectual capital*, 3(4), 375-392.
- Collis, J., & Hussey, R. (2003). *Business research, a practical guide for undergraduate and postgraduate students* (2 ed.). New York: Palgrave macmillan.
- Cong, X., & Pandya, K. (2003). Issues of knowledge management in the public sector. *Electronic journal of knowledge management*, 1(2), 25-32.

- Cross, R., Borgatti, S., & Parker, A. (2002). Making invisible work visible: using social network analysis to support strategic collaboration. *California management review*, 44(2), 25-46.
- Davenport, T., & Prusak, L. (1998). *Working knowledge: how organizations manage what they know*. Boston: Harvard business school press.
- Deery, M. (2008). Talent management, work-life balance and retention strategies. *International journal of contemporary hospitality management*, 20(7), 792-806.
- Duxbury, L., Higgins, C., & Mills, S. (1992). After-Hours Telecommuting and Work-Family Conflict: A Comparative Analysis. *Information systems research*, 3(2), 173-190.
- Gargiulo, M., & Benassi, M. (2000). Trapped in your own net? Network cohesion, structural holes and the adaption of social capital. *Organization science*, 11(2), 183-196.
- Gates, B. (2006). The new world of work: always on, always connected. *Microsoft white paper*, 1-12.
- Goh, S. (2002). Managing effective knowledge transfer: an integrative framework and some practical implications. *Journal of knowledge management*, 6(1), 23-30.
- Gold, A., Malhotra, A., & Segars, A. (2001). Knowledge management: an organizational capabilities perspective. *Journal of management information systems*, 18(1), 185-214.
- Grant, R. (1996). Toward a knowledge-based theory of the firm. *Strategic management journal*, 17(10), 109-122.
- Hansen, M. (1999). The search-transfer problem: the role of weak ties in sharing knowledge across organization subunits. *Administrative science quarterly*, 44(1), 82-111.
- Heerwagen, J., Kampschroer, K., Powell, K., & Loftness, V. (2004). Collaborative knowledge work environments. *Building research & information*, 32(6510-528).
- Holland, J., Thomson, R., & Henderson, S. (2006). *Qualitative Longitudinal Research: A Discussion Paper*. London: Families & Social Capital ESRC Research Group.
- Ipe, M. (2003). Knowledge sharing in organizations: a conceptual framework. *Human resource development review*, 2(4), 337-359.

- Jarvenpaa, S., & Staples, D. (2001). Exploring perceptions of organizational ownership of information and expertise. *Journal of management information systems*, 18(1), 151-183.
- Kang, J., Rhee, M., & Kang, K. H. (2010). Revisiting knowledge transfer: Effects of knowledge characteristics on organizational effort for knowledge transfer. *Expert Systems with Applications*(37), 8155–8160.
- Kim, S., & Lee, H. (2006). The impact of organizational context and information technology on employee knowledge-sharing capabilities. *Public administration review*, 66(3), 370-385.
- Kop, N., & Klerks, P. (2009). *Doctrine intelligencegestuurd politiewerk*. Apeldoorn: Politieacademie.
- Kraut, R., Fish, R., Root, R., & Chalfonte, B. (1993). Informal communication in organizations: form, function, and technology. *Human reactions to technology: the Claremont symposium on applied social psychology*. (pp. 287-314). Sage publications.
- Kurland, N., & Bailey, D. (1999). The advantages and challenges of working here, there, anywhere, and anytime. *Organizational dynamics*, 28(2), 53-68.
- Lam, A. (2000). Tacit knowledge, organizational learning and societal institutions: an integrated framework. *Organization studies*, 21(3), 487-513.
- Lank, E. (1997). Leveraging invisible assets: the human factor. *Long range planning*, 30(3), 406-412.
- Lee, H., & Choi, B. (2003). Knowledge management enablers, processes and organizational performance: an integrative view and empirical examination. *Journal of management information systems*, 20(1), 179-228.
- Lee, H., Shin, B., & Higa, K. (2007). Telework vs. central work: A comparative view of knowledge accessibility. *Decision support systems*, 43(3), 687–700.
- Lin, C. (2007). To share or not to share: modeling tacit knowledge sharing, its mediators and antecedents. *Journal of business ethics*, 70(4), 411-428.
- Luen, T., & Al-Hawamdeh, S. (2001). Knowledge management in the public sector: principles and practices in police work. *Journal of information science*, 27(5), 311-318.

- Martin, C. (2005). From high maintenance to high productivity: What managers need to know about Generation Y. *Industrial and commercial training*, 37(1), 39-44.
- McAdam, R., & Reid, R. (2000). A comparison of public and private sector perceptions and use of knowledge management. *Journal of European industrial training*, 24(6), 317-329.
- Mobach, M. (2009). *Een organisatie van vlees en steen*. Assen: Koninklijke Van Gorcum.
- Molina-Azorin, J. (2010). The use and added value of mixed methods in management research. *Journal of mixed methods research*, 5(1), 7-24.
- Nelissen, P., Wenneker, M., & van Selm, M. (2008). ICT performance in processes of knowledge sharing in organizations: a review of literature. *Communications*, 33(1), 91-108.
- Nonaka, I. (1991). The knowledge-creating company. *Harvard business review*, 6, 162-171.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization science*, 5(1), 14-37.
- Nonaka, I., & von Krogh, G. (2009). Tacit knowledge and knowledge conversion: controversy and advancement in organizational knowledge creation theory. *Organization science*, 20(3), 635-652.
- Nonaka, I., Toyama, R., & Byosière, P. (2003). *Handbook of organizational learning & knowledge*. (M. Dierkes, A. Berthoin Antal, J. Child, & I. Nonaka, Red.) New York: Oxford university press.
- O'Dell, C., & Grayson, C. (1998). If only we knew what we know: identification and transfer of internal best practices. *California management review*, 40(3), 154-174.
- Olsen, J. (2006). Maybe it is time to rediscover bureaucracy. *Journal of public administration research and theory*, 16(1), 1-24.
- Peréz, M., & Sanchez, A. (2002). Knowledge tasks and teleworking: a taxonomy model of feasibility adoption. *Journal of knowledge management*, 6(3), 272-284.
- Polanyi, M. (1966). The logic of tacit inference. *Philosophy*, 41(155), 1-18.
- Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *The journal of American academy of business*, 5(1/2), 52-63.



- Rashid, M., Kampschroer, K., Wineman, J., & Zimring, C. (2006). Spatial layout and face-to-face interaction in offices study of the mechanisms of spatial effects on face-to-face interaction. *Environment and Planning B: Planning and Design*, 33(6), 825-844.
- Rashid, M., Wineman, J., & Zimring, C. (2009). Space, behavior, and environmental perception in open-plan offices: a prospective study. *Environment and Planning B: Planning and Design*, 36(3), 432-449.
- Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer, the effects of cohesion and range. *Administrative science quarterly*, 48(2), 240-267.
- Roberts, J. (2000). From know-how to show-how? Questioning the role of information and communication technologies in knowledge transfer. *Technology analysis & strategic management*, 12(4), 429-443.
- Scarborough, H. (1999). Knowledge as work: conflicts in the management of knowledge workers. *Technology analysis & strategic management*, 11(1), 5-16.
- Serrato, M. (2002). *Building-based communication research*. Retrieved from Tradeline: <http://www.tradelineinc.com/reports/343773FE-17B5-4AAF-BD67D3BEBEC058860>
- Sims, W., & Becker, F. (2001). Retrieved from Cornell University: [http://iwsp.human.cornell.edu/file\\_uploads/offices1\\_1238256905.pdf](http://iwsp.human.cornell.edu/file_uploads/offices1_1238256905.pdf)
- Stenmark, D. (2000). Leveraging tacit organizational knowledge. *Journal of management information systems*, 17(3), 9-24.
- Steyn, M., & Kahn, M. (2008). Towards the development of a knowledge management practices survey for application in knowledge intensive organisations. *South African journal of business management*, 39(1), 45-53.
- Stonehouse, G., & Pemberton, J. (1999). Learning and knowledge management in the intelligent organisation. *Participation & empowerment: an international journal*, 7(5), 131-144.
- Straver, R., & Ulrich, R. (2008). *Gebiedsgebonden politie organiseren*. Apeldoorn: Politieacademie.
- Sveiby, K., & Simons, R. (2002). Collaborative climate and effectiveness of knowledge work, an empirical study. *Journal of knowledge management*, 6(5), 420-433.

- Syed-Ikhsan, S., & Rowland, F. (2004). Benchmarking knowledge management in a public organization in Malaysia. *Benchmarking: an international journal*, 11(3), 238-266.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology, combining qualitative and quantitative approaches*. Thousand Oaks: Sage publications, Inc.
- Thompson, S. (2009). The Organization-Worker Relationship. *Research Starters*.
- Tsai, W. (2002). Social structure of “coopetition” within a multiunit organization: coordination, competition, and intraorganizational Knowledge sharing. *Organization science*, 13(2), 179-190.
- van der Torre, E., & van Harmelen, E. (2007). *Politie: studies over haar werking en organisatie* (2 ed.). (C. Fijnaut, E. Muller, U. Rosenthal, & E. van der Torre, Red.) Deventer: Kluwer.
- van der Voordt, D. (2004). Costs and benefits of flexible workspaces: work in progress in the Netherlands. *Facilities*, 22(9/10), 240-246.
- van Laere, J. (2005). ICT inbedden in de politieorganisatie: spelsimulatie als ontwikkelomgeving voor nieuwe kennisdelingsprocessen. *Journal of social intervention: theory and practice*, 14(1), 31-42.
- van Meel, J., & van der Voordt, D. (2000). *Successful corporate real estate strategies*. (G. Dewulf, P. Krumm, & H. de Jonge, Red.) Nieuwegein: Arko Publishers.
- Veldhoen, E. (2005). *The art of working*. Den Haag: Academic Service.
- Vera-Muñoz, S., Ho, J., & Chow, C. (2006). Enhancing knowledge sharing in public accounting firms. *Accounting horizons*, 20(2), 133-155.
- vts Politie Nederland. (2008, June 20). Retrieved on March 17, 2011, from [www.politie.nl: http://www.politie.nl/Overdepolitie/organisatie/](http://www.politie.nl/Overdepolitie/organisatie/)
- Welten, B., Bik, R., & Gunther-Moor, L. (2005). *Politie in ontwikkeling*. 's-Hertogenbosch: Drukkerij van Gerwen.
- Willem, A., & Beulens, M. (2007). Knowledge sharing in public sector organizations: the effect of organizational characteristics on interdepartmental knowledge sharing. *Journal of public administration research and theory*, 17(4), 581-606.

- Yang, J. (2007). Knowledge sharing: investigating appropriate leadership roles and collaborative culture. *Tourism management*, 28(2), 530-543.
- Yang, S., & Farn, C. (2009). Social capital, behavioural control, and tacit knowledge sharing: a multi-informant design. *International journal of information management*, 29(3), 210-218.

## **Appendix one - interview analysis**

### 10.1.1 Microsoft

#### Motive:

Eén reden was vanuit de medewerkers dat er onvrede was over het op pijn kunnen houden van de balans tussen werk en privé. Dan ga je dus discussie krijgen over “het tijd en plaats onafhankelijk werken”.

Om vanuit huisvesting, om een omgeving te creëren die is ingericht is voor ontmoeten en samenwerken.

Het inzetten van HNW als marketing instrument

#### Design:

##### *Office layout*

Niemand een eigen kantoor.

Geen afdelingen.

Bepaalde werkzaamheden concentreren naar een bepaald gedeelte van het pand

Hele pand is flex.

Een inspiratieve omgeving.

Niet een keurige arbo-ingerichte werkplek is. We betrekken onze hele kantine bij de werkruimte.

##### *ICT*

Een ICT omgeving.

Laptop.

Sociale media.

Voornamelijk Microsoft technologie

#### Results:

Mensen aan ons willen binden, boeien, vasthouden, talent aantrekken.

Hoe onze werknemers naar ons als werkgever kijken.

Klanttevredenheid.

Het altijd en overal kunnen werken en daar uiteindelijk een goed balans in kunnen vinden hoe je je werk en privé combineert.

#### Measurements:

Door 2x per jaar de klant tevredenheid te meten en daar hebben wij allerlei parameters op, waar die klanttevredenheid dan uit bestaat.

Ja, wij doen jaarlijks een medewerker tevredenheidonderzoek op het gebied van werk-privé, onszelf een 5 gaven. We zijn van een 5 naar een 8,5 gegaan

We hebben nog niet alle doelstellingen behaald (over kennisdelen)

Vragen met de medewerker tevredenheidonderzoeken is of ze het gevoel hebben dat ze effectief samenwerken of dat ze het gevoel hebben dat hun team voldoende of onvoldoende verbonden is met andere teams.

Vorig jaar hadden we bijna 56.000 bezoekers in ons pand, wat ongeveer neerkomt op 800 bezoekers per week, om te kijken hoe wij invulling hebben gegeven aan HNW.

Dat zien we ook in een ziekteverzuimcijfer van onder de 1,5%, het medewerker tevredenheidgehalte, laag verloop, mensen ervaren werk veel minder als stress.

Normaal gesproken zijn kantines hele dure ruimtes omdat die anderhalf uur per dag gebruikt worden en verder leeg staan. Dus daarom hebben wij gezegd, de kantine is ook werkruimte en ontmoetingsruimte. Op die manier heb je al een flinke hap te pakken van je kosten.

#### Consequences:

##### *Knowledge sharing*

Het kan maar net zo zijn dat ze de volgende dag compleet ergens anders zitten.

pand ingericht op ontmoeten en flexwerken

En binnen het kader van ga daar (sociale media) verantwoord mee om, maar we kennen geen grenzen of beperkingen van wat mensen wel of niet kunnen.

Verder komen we elkaar tegen, al dan niet virtueel.

Dat geven ze zelf wel aan, ja. Dat ze meer ideeën hebben opgedaan, dat ze beter informatie met elkaar zijn gaan uitwisselen, dat ze

niet op voorhand denken; deze informatie deel ik niet, Want wat heeft een ander daar aan. Wij delen hier voornamelijk het principe, we delen alles met elkaar tenzij. Terwijl heel veel bedrijven zeggen; dat deel ik niet, tenzij. Dat is een andere insteek.

Daar proberen we open en transparant in te zijn. Dat delen gaat niet alleen over informatie maar ook over de activiteiten die je doet.

*Other behavioral changes*

Niet meer worden gemeten en beoordeeld worden op de aanwezigheid, maar meer op de productiviteit en de in en output die je levert. En dat je verder gestuurd wordt op vertrouwen in plaats van controle, dus dat je niet meer aan je manager hoeft te laten weten waar je uithangt, maar je wordt afgerekend op wat je met elkaar afspreekt.

Een gevoel en cultuur van, kunnen we er op vertrouwen dat de vrijheid die je verkrijgt niet wordt misbruikt.,

Hoe ga jij mensen aansturen, meten, begeleiden, beoordelen, coachen, op het moment dat je ze bij wijze van spreke nooit meer ziet?

Wij hebben met elkaar afgesproken dat elke manager bepaald samen met zijn team wat het fysieke minimum is van de groep.

Dat zetten we op papier en daar wordt je een het eind van de rit op beoordeeld of afgerekend. Dat doet we wel binnen kaders.

We dachten dat dit concept vooral onder jongeren echt fantastisch zou zijn, dat vinden ze ook wel, maar ze vinden het nog leuker om de hele dag bij elkaar te zitten op één plek.

Je kunt mensen wel een hoop vrijheid geven en dingen wegnemen, maar aan de andere kant moet je wel voor sociale vangnetten zorgen. Want hoe zorg je ervoor dat je nog binding hebt met je organisatie?

### 10.1.2 Ahold

#### Motive:

Eén daarvan is wat wij nu noemen de nieuwe office lay-out, de belangrijkste redenen was dat voor ons de kosten. Veel werkplekken die maar voor een beperkte mate gevuld werden, zelfs op de piekmomenten.  
Meer moesten gaan flexwerken omdat we een bereikbaarheidsprobleem begonnen te krijgen.

#### Design:

##### *Office layout*

Werken met flexplekken  
Je raakt je eigen kamer kwijt  
Open ruimte  
In het oog springend

##### *ICT*

Conference calls  
Video conferencing.  
laptops die ook thuis goed werken  
Handhelds  
Social media

#### Results:

Veel sneller acteren, je besluitvorming gaat ook sneller.  
Veel sneller door kunt met allerlei zaken ook als mensen niet op kantoor zijn  
Past bij het zijn van een moderne werkgever. In een volledig achterhaalde kantooromgeving ... dan zou je dat moeten merken in problemen bij de werving en problemen met retentie.  
Gelijke tred te houden met de ontwikkelingen. Goed aansluit bij de ontwikkelingen in de maatschappij. Benutten van de technologische mogelijkheden  
Rekening houdt met wat medewerkers belangrijk vinden  
Onze arbeid zo kosteneffectief mogelijk kunnen organiseren.  
Files op te lossen  
Te weinig parkeer gelegenheid.  
Mensen meer flexibiliteit hebben in waar en wanneer ze werken, dus veel dingen makkelijker met elkaar kunnen combineren.

#### Measurements:

Aantoonbaar dat we minder plek nodig hebben.  
Zodat we per saldo minder plekken en minder ruimte nodig hebben.  
Ten aanzien van het reisgedrag minder problemen hebben dan we anders gehad zouden hebben.  
Natuurlijk niet gemeten, hoeveel beter mensen bereikbaar zijn  
Verzuim is terug gelopen, maar we hebben geen onderzoek gedaan naar het verband hiertussen.  
Niet meetbaar.  
Tevredenheid per saldo toeneemt. Maar of dat hier door komt weten we niet. Dat is heel moeilijk te meten.  
Geen verband leggen. Geen groot retentieprobleem

#### Consequences:

##### *Knowledge sharing*

De moderne middelen om die medewerkers ter beschikking te stellen om hun werk te kunnen doen en om elkaar te kunnen bereiken.  
Op alle plekken en niet alleen op de kantoorplekken kunnen werken en dat ze ook beter met elkaar verbonden zijn. Middelen meekrijgen om vanuit andere plekken te kunnen werken.  
Afdelingen zijn gaan samenvoegen, er is zoveel kennis in de organisatie, breng het maar bij elkaar.  
Daar stonden enorme muren tussen, daar werd niet samengewerkt en sterker nog ze concurreerden elkaar  
Dat (moderne middelen) doen we ook waardoor het veel makkelijker wordt om met elkaar aan het werk te zijn, ook als je niet met

z'n allen op dezelfde tijden op kantoor bent.

Nou nee, dat (over verbeterde kennisdeling) zou ik niet kunnen zeggen. Het is meer dat de organisatie er aan gewend is dat je op meer manieren bereikbaar bent, dan als je in een vergadering tegenover elkaar zit.

Je bent bezig om de mensen meer middelen ter beschikking te stellen zodat ze ook elders kunnen werken.

*Other behavioral changes*

Als je werkt conform het nieuwe werken dan moet je steeds meer op output sturen. Want je hebt niet meer iedereen gelijktijdig beschikbaar en bereikbaar. Je hebt geen visuele controle meer op het werk. Je zult het moeten doen met wat ze uiteindelijk realiseren of opleveren.

Niet meer iedere dag lijfelijk zult zien, zul je moeten werken op basis van loslaten, dus je zult als leider ook veel meer aan het gedrag van medewerkers moeten aanpassen.

meer autonomie krijgt over waar en wanneer je werkt, je krijgt er meer zeggenschap over en dat vinden mensen prettig ze vinden het ook prettig om met goede communicatiemiddelen te werken.

Je krijgt een ander besef of notie van werktijden.



### 10.1.3 HP

#### Motive:

Gebouwen consolidatie ... begonnen met op een andere manier verder invulling geven van de mogelijkheid om mensen in de gelegenheid te stellen plaats- en tijdsafhankelijk te gaan werken. De drijfveer daarachter was destijds voornamelijk kosten.

Een zekere mate van vrijheid in waar en wanneer je werkt omdat te versterken en om eigenlijk iedereen thuiswerker te maken, flexwerker te maken.

Maatschappelijk component

#### Design:

##### Office layout

Clean desk policy.

Mensen zijn echt gewend aan hun eigen plek.

Als je aan het telefoneren bent zoek je de juiste ruimte op in plaats van rond te lopen

##### ICT

Virtuele teams,

Technologie gebaseerd en geijkt is op meer mobiliteit.

Een laptop.

Een telefoon.

Toegang vanuit huis tot de bestanden en de e-mail.

Intranet,

Interne communities,

Kennisessies

Sharepoint

De office communicator van microsoft

#### Results:

Als jij goede mensen wil hebben en houden dan moet je ze een aantal voordelen die je kunt geven, arbeidsvoorwaarden

Dat mensen zelf hun eigen dagelijkse ritme op pijn kunnen houden.

Meer belasting terug brengen, CO2 beperken, de mens de mogelijkheid geven om meer eigen tijd te besteden en invulling geven vanuit welke locatie ze dat doen.

Goede identiteit van HP. Op de arbeidsmarkt bijvoorbeeld enerzijds, en anderzijds door ons grote klanten doel kunnen we laten zien dat we actief bezig zijn geweest met dit traject.

Kosten hebben kunnen besparen

Mensen een betere work-life balance hebben kunnen geven het milieu minder belast hebben.

#### Measurements:

35% minder woon werk verkeer hebben, qua tijd. Dat is dus een derde van de reistijd in totaal die we eigenlijk terug krijgen. Met de mobiliteitsproblematiek in Nederland die we toch hebben, zoals files als belangrijkste, dat legt een zwaar beslag op de energie en tijd van medewerkers

Productiviteitsverbetering ten gevolge van het nieuwe werken is een onwaarschijnlijk moeilijk meetbaar gegeven.

HNW ingevoerd en de productiviteit is in ieder geval niet achteruit gegaan.

De medewerker tevredenheid is bij HP maar ook bij andere bedrijven, de baanzekerheid is iets lager dan normaal, de mogelijkheden binnen een bedrijf, er worden wat meer kosten gesneden daar kun je wel zien dat de medewerker tevredenheid onder druk komt te staan. En wat we zien is dat HNW, dat samen viel met die periode, dat is eigenlijk hetgeen waar de medewerkers nog het meest tevreden over zijn. Dat is ook hetgeen wat de medewerker tevredenheid ook in de lucht heeft gehouden.

Onderzoek hebben gedaan intern onder 2400 medewerkers dat 90% van de medewerkers vindt dus na één jaar HNW toepassen een hele belangrijke arbeidsvoorwaarde.

Op commerciële functies, alles is meetbaar, dus dat maakt het in die zin wel gemakkelijk. Alles wordt vastgelegd in omzet en statistieken en die worden dagelijks bijgehouden.

Niet een officieel verband dat is gelegd met ziekteverzuim en HNW.

In een jaar 29% co2 reductie gerealiseerd.

9 miljoen structureel behaald als kosten besparing vanuit het gebied van facility management, dat waren de huurkosten pak weg.

Je ziet op een gegeven moment een betere work-life balance ...en ook een veel hogere mate van benutting van jouw dag.

Samenwerking, hoe het is verbeterd, dat is in het algemeen dat je merkt, hoewel we daar geen onderzoek naar hebben gedaan, dat je meer kan doen.

### **Consequences:**

#### *Knowledge sharing*

Kennisdelen ansich wordt dat eerder een nieuwe uitdaging dan dat het nieuwe werken de kennisdeling opeens versterkt. Kennisdeling is zelden een louter 'informatieve' aangelegenheid. Kennis die je digitaal krijgt consumeer je met een andere intensiteit dan face to face. Het 'emotionele' element van kennisdeling wordt behouden. Face to face presentaties, roundtables en 1:1 gesprekken. Het is toch anders dat als jij met een team dicht bij elkaar zit, je deelt kennis en je krijgt dingen mee, is toch anders dan wanneer je op afstand werkt.

Maar kennis over de lokale markt, de klanten, de mensen met wie we samenwerken, over de opdrachten en oplossingen bij issues: dan kun je niet alleen bouwen op digitale middelen.

De hoeveelheid informatie is eerder een probleem, dan dat het je helpt. Hoe kun je die informatie nou krijgen en hoe kun je die informatie nou delen. 'best practises' en dergelijke.

Het gebruik en delen van informatie via sharepoint sites.

Goed bepaalt wanneer je face-to-face meetings hebt en voor welke activiteiten jij virtuele meetings hebt.

Het nieuwe werken jou helpt om echt gebruik te maken van digitale middelen, social media, dat is natuurlijk wel iets waardoor je meer feeling krijgt met dergelijke vormen van kennisdelen

Samenwerken is wat dat betreft, ook met de middelen die je hebt, bijvoorbeeld, dat je ziet wanneer iedereen online is, dat leidt tot een flexibeler en soepelere samenwerking.

Op een gegeven moment heel goed moet kijken als je met mensen samen gaat werken, maar dan wel op afstand, dat je op een moment komt waar je moet zeggen dat je afspraken moet maken.

Meestal betekent dat afspraken over de uren die je wel/niet bereikbaar bent. Dat je terugkomt op voicemails ... samen dagen afspreekt waar je samenkomt, duidelijk afspreekt wat de 'grenzen' zijn van het nieuwe werken

#### *Other behavioral changes*

Met die vrijheid geef je ook de verplichting mee geeft om die afspraken ook na te komen.

Als je geen vertrouwen hebt in je medewerkers en je moet ze zien om te denken dat je controle hebt, dat werkt niet zo goed natuurlijk.

Dat is ingeworteld in de uitgangspunten van het bedrijf. Integriteit staat daarbij, maar ook vertrouwen

Dat maakt het ook gemakkelijk, want als het vertrouwen er niet is, dan kun je moeilijk sturen op output.

Het gaat over loslaten in dit geval,

Je hebt kaders die beschrijven meer de verantwoordelijkheden die je hebt en de bereikbaarheid.

Je wilt je personeel veel vrijheid geven, maar een paar dagen per week vast met het team is bijna onontkoombaar voor een heleboel afdelingen.

Als iedereen binnen dat team geen afspraken maakt over wanneer je thuis werkt of wanneer je flexwerkt, dan heb je een probleem

want dan loop je elkaar mis en dat gaat absoluut ten koste van het team gevoel.

Vertrouwen heeft in zijn medewerkers en ze de vrijheid geeft om dingen op te pakken op hun eigen manier binnen een kader. Door allereerst een vrijheid van 'tijd' te bieden en vervolgens vrijheid van 'locatie'.

Als jij starters in dienst neemt, die moeten hun weg vinden bij hp dat dan de integratie binnen het bedrijf, dat je je weg weet te vinden, dat makkelijker is dan wanneer een team eigenlijk continu op weg is en eigenlijk nooit aanwezig is. Behalve dat het goed is voor nieuwe medewerkers om wat vaker op kantoor te zijn. Omdat ze anders te weinig contact hebben

Je moet het wel zo zien dat de jeugd, de jonge werknemer is veel meer gewend om te multi-tasken, die is veel mobieler en die is ook veel meer into digitale en social media. Maar wat wij zien als starters binnen komen, die hebben juist behoefte aan iemand die tegenover ze zit waar ze van kunnen leren en dat werkt anders wanneer jij op afstand bent of wanneer jij op kantoor bent.

Vrijheid en verantwoordelijkheid: maar het is niet vrijblijvend. In praktijk blijken zowel managers als employees een bepaalde mate van houvast te waarderen. Daarbij is het sociale element zeer relevant. Moet je de tijd die je afzonderlijk werkt compenseren met vaker samen dingen doen? Dat zijn de afspraken die je maakt. Denk ook aan maandelijks overleg over HNW: gevoelens van isolement, eenzaamheid.

#### 10.1.4 Rabobank

##### Motive:

Verhuizing is de aanleiding omdat we gewoon meer plek nodig hebben.  
Consumenten kunnen makkelijker vergelijken en niet meer loyaal zijn aan hun bank  
Medewerkers andere dingen vragen  
Competitie en de handelingsnelheid van de financiële wereld gaan omhoog.

##### Design:

###### Office layout

Kies een plek die je past bij wat je doet/activiteit gerelateerd werken.  
Flexibele werkplekken  
Een activiteit gerelateerd kantoor  
Belplekken  
Concentratieplekken  
Vertrek punt, een 'basiskamp', maar iedereen kan daar werken.  
Samenwerking vloeren.  
De individuele vloeren.  
Archief opruimen zodat je geen bureau meer nodig hebt  
Bezettingsgraad van 70%  
Open kantoor  
Voel je je vrij om te bewegen.

###### ICT

Goede mobiele ICT  
Draadloze netwerken,  
Andere software  
Sociale netwerken.  
Yammer  
Linkedin.  
Sharepoint  
Mobiel werken

##### Results:

Aantrekkelijkere werkgever  
Marktleider  
Toegevoegde waarde voor de klant.  
Verbeterde marktpositie,  
Flexibele organisatie.  
Talent aan ons kunnen binden  
Actiever kunnen zijn en sneller kunnen handelen.  
Meer een leef balans  
Mvo georiënteerd.  
Meer keuze hebben in hoe ze reizen en werken, thuis zullen werken en minder in de file zullen staan  
Zoals de kostenefficiëntie, is mvo ook geen doel op zich  
Meer verantwoordelijkheid, meer ondernemerschap, minder regels, meer samenwerken/kennisdelen, tijd/plaats onafhankelijk werken, kies een plek die je past bij wat je doet/activiteit gerelateerd werken.  
Mensen worden er zichtbaar beter van  
Je hebt de faciliterende kant, en dat zit 'm in die drie omgevingsfactoren, andere huisvesting, andere ict en andere arbeidsvoorwaarden, die maken dat je dat andere gedrag mogelijk maakt.  
Het gemakkelijker stroomt, dat medewerkers sneller initiatieven nemen en dat bijvoorbeeld een hypotheek adviseur gemakkelijker besluit 's avonds een klant te bezoeken.

### Measurements:

Wel en niet ... over het aantal papiertjes dat geprint wordt, het printer gebruik, de kosten van applicaties die we uit saneren, de kosten verhuizingen en ziekteverzuim.

Mensen gevraagd wat ze er van vinden ... allemaal positief.

Het ziekteverzuim daalt, mensen geven aan hier graag te werken ... Maar of het nu echt werkt, zijn we ook daadwerkelijk productiever. Oké we zijn een aantrekkelijke werkgever, we zijn een sterk merk, we maken winst, dus eigenlijk staan alle lichtjes wel op groen, maar of het echt werkt weet je niet.

De causaliteit heel lastig hard te maken is.

Dat meten we ook niet, maar de verwachting is dat dit onze co2 footprint kleiner maakt omdat mensen meer keuze hebben in hoe ze reizen en werken, thuis zullen werken en minder in de file zullen staan.

Het meest goedkope is om niet te verhuizen. Dus ik denk dat op de lange termijn dit misschien wel kosten efficiënt is, maar bouwen en verhuizen kost natuurlijk altijd geld, in ieder geval niet op korte termijn.

Ik geloof dat het in andere panden één op één is (over de bezettingsgraad), dus in die zin is dat voordeliger.

Er ligt geen business case onder dit concept.

Medewerkers zeggen de betrokkenheid is groter

Het nieuwe gebouw, had bij ontwerp de hoogste Greencalc score van Europa.

### Consequences:

#### *Knowledge sharing*

De samenwerking rondom je afdeling heen gaat veel makkelijker.

Mensen aangeven dat kennis makkelijker vloeit ... dat ze makkelijker bereikbaar waren en dat ze weten van elkaar waar ze mee bezig waren

En die toevallige ontmoetingen, die misschien niet zo goed hadden gewerkt als ze op de oude manier hadden gewerkt.

Dat mensen elkaar gemakkelijker in zo'n kantoor omgeving treffen omdat ze niet 'verkaderd' werken en door toevallige ontmoetingen slimmere dingen bedenken die ze anders niet bedacht zouden hebben. We verwachten aan alle kanten, dat het sneller is en dat het makkelijker stroomt en dat mensen meer plezier hebben.

In het nieuwe kantoor vinden die elkaar misschien toevallig en misschien bedenken ze iets wat anders nooit gebeurd was.

Iedereen kan overal gaan zitten werken. Maar je ziet wel dat op de samenwerking vloeren dat mensen heel gemakkelijk door elkaar werken en op de individuele vloeren zie je toch meer dat het per afdeling is.

We hebben steeds meer plekken waar 'sharepoint' wordt ingevoerd, waardoor je gemakkelijker documenten deelt. Dus mensen vinden elkaar én kennis makkelijker.

#### *Other behavioral changes*

Als het goed is gaat het erover dat je mensen minder dwingt en controleert en dat je meer vrijheid biedt en resultaat afspraken met ze maakt.

Dat we sturen op resultaat op basis van vertrouwen, waar mensen zichzelf kunnen zijn, hun eigen keuzes kunnen maken en daarmee niet gebonden zijn door onnodige regels.

In een traditionele organisatie gaan we er vanuit dat de baas weet wat goed is en de medewerkers vertelt dat we dat zo en zo doen.

'Command en control'. In het unplugged concept, ga je leidinggeven iets meer betekenis geven en hij faciliteert vooral de medewerkers om zelf de verantwoordelijkheid laat nemen

Vertrouwelijkheid in het open kantoor. Er zijn toch mensen die het lastig vinden om vertrouwen te vinden in het voeren van telefoongesprekken op de open vloer of hun documenten op hun bureau te laten liggen of hun laptop open te laten staan en weg te

gaan, hoewel je niet weet wie van welke afdeling er naast jou zit.

Het werk zelf gaat veel geolieder, maar dat sociale aspect moet je gaan organiseren.

Eentje is sociale cohesie, mensen schrikken daar een beetje van, als ze erachter komen dat ze hun collega's niet meer zien of dat blijkt dat iemand op vakantie is, zonder dat ze dat weten

Het nieuwe werken kan je altijd invoeren, ook al verander je niks aan de context, je kan het nog steeds doen, maar goede mobiele ICT en draadloze netwerken, andere flexibele kantoren en andere software dat helpt enorm je nieuwe werken te verkopen.

### 10.1.5 UVIT

#### Motive:

Behoeftte ontstond aan een nieuw hoofdkantoor. Moest in het teken staan van verbinding en samenwerking.  
Volgens de laatste inzichten; het flex werken, dus tijd en plaatsonafhankelijk

#### Design:

##### Office layout

Door het grote aantal parttimers, naar 0,8fte per werkplek  
gegaan  
Open kantoorlandschap  
De horecavoorzieningen over 3 verdiepingen  
Inspirerende kantooromgeving,  
Papierloos,  
Cleandesk,  
Ruimte voor ontmoeting en verbinding.  
Taakgebonden werken.  
Verschillende soorten werkplekken. Lounge,  
concentratiewerkplekken, teamwerkplekken. Stilte werkplekken  
Op een hele groene manier

##### ICT

De office communication server van Microsoft  
Round table faciliteit met webcam  
Share-point technologie.  
Intranet.  
Laptop  
Beeldverbinding.

#### Results:

Duurzaam werkgeverschap.  
Een aantrekkelijke werkgever  
Onze productiviteit verhogen, dat is ook één van de doelstellingen en een daar van afgeleide doelstelling is omzetgroei.  
Doordat wij onderling beter samenwerken, heeft dat ook gevolgen voor de klanttevredenheid, gaan we van uit. Blij en tevreden medewerkers zorgen als het goed is ook voor een blij en tevreden klant.  
Kosten omlaag brengen is ook een duidelijk onderdeel van de visie, door middel van die huisvesting.  
Als laatste die ik wil noemen, is het verzuim. We hebben ook te maken met een verzuim percentage wat in de traditionele situatie hoger ligt dan in de hnw situatie.  
Geprobeerd dat reis-leed wat te verzachten, door in ieder geval iedereen een ns business card eerste klas te geven, onze locaties is met zin ook op het centraal station gezet. En daarbij hebben we gezegd, gewoon lekker thuis te werken of ergens op een kantoor wat misschien dicht in de buurt zit en daarmee het aantal reisbewegingen proberen te beperken  
Ook meer mensen kwijt kunnen op minder verhuurbaar vloeroppervlak.  
Je wilt natuurlijk wel er voor zorgen dat je dat talent aan je kunt binden en ook boeien om voor jou te gaan werken. Dat is ook wel wat we beogen met de visie vanuit dit pand.  
We wilden door het concept, door mensen veel te laten ontmoeten, veel te laten kennisdelen, maar ook de beïnvloeding van de medewerkers op de processen wat er gaat gebeuren met het bedrijf, vergroten.  
Om uiteindelijk je samenwerken, je inventiviteit, je creativiteit, je innovatievermogen, door samenwerking te vergoten. Dat is toch wel een bovenliggend doel. Dat mensen boven zichzelf kunnen uitstijgen.  
Bijdragen aan een betere maatschappij. Verkeersmobiliteit. Dat je het openbaar vervoer promoot.  
Meer motivatie. Meer plezier in het werk. Meer betrokkenheid. En daarbij is het ook in ons geval dat er aandacht wordt gevraagd om aan de klant te denken.  
Hnw is nooit een doel op zich, maar een middel om door kennisdeling en samenwerking boven jezelf uit te stijgen, dat is wat mij

betreft de kern. Innovatiever worden, kennis delen, kennis is macht is het 'oude werken', kennis delen is macht is het nieuwe werken.

De mogelijkheid om je work-life balans op een andere manier in te richten.

Maak er gewoon een prachtig kantoor van, richt het mooi in, geef de gelegenheid om te ontmoeten en verbinden, tijd en plaatsonafhankelijk werken, zodat je niet zoveel hoeft te reizen. Dat is ook wel bedoeld om mensen gewoon een mooi nieuw kantoor te bieden als 'goedmakertje' voor de mensen die opeens een langere reisafstand moeten overbruggen.

Mensen bewust maken van het feit dat ze effectiever kunnen werken door gebruik te maken van de verschillende werkplekken en te kiezen wat past bij het werk wat ze aan het doen zijn.

#### **Measurements:**

Dat medewerkers zelf aangeven, is dat 30% van de medewerkers aangeeft dat ze productiever zijn gaan werken door de mogelijkheden van HNW. Maar dat kun je niet objectief meten. Dat zijn belevingen van mensen. En als je nu zegt waar kan ik dat dan goed objectief aan meten, dan is het antwoord, dat is niet te doen.

Ruim 40% gaf aan de ze de nieuwe werksituatie verbeterd tot sterk verbeterd vonden.

We merken dat (lager ziekteverzuim) wel, maar we hebben dat nog niet hard gemeten.

De mensen die het meeste moesten reizen, ook negatiever dachten over HNW. Ja, dat was significant en konden we meten.

De business case onder HNW en de enige die je echt hard kunt maken is huisvesting.

En dat heeft ons 45% minder vloeroppervlak opgeleverd waar we mee toe kunnen.

Ook al meten we dat niet, je ziet het wel ontstaan (over meer interactie).

#### **Consequences:**

##### *Knowledge sharing*

Hoe meer je deelt, hoe meer je boven jezelf uit kunt stijgen en hoe meer je terug krijgt. Dus veel ruimte voor ontmoeten. Een inspirerende omgeving neerzetten. Een flex omgeving en tijd en plaatsonafhankelijk kunnen werken dragen daar allemaal aan bij. Dat maakt dat mensen anders naar hun werk gaan kijken. In hun beleving daar anders in zitten. Dat is ook de basis voor het bijbehorende gedrag.

Met elkaar op die manier mogelijk maken om gebruik te maken van die verschillende soorten werkplekken. Mensen hebben de neiging omdat niet te doen.

Je ziet veel meer interactie ontstaan tussen de verschillende afdelingen. Voorheen zaten de teams verdeeld over de verschillende locaties, die hadden elkaar nog nooit gezien.

Een gebouw waar veel verbinding mogelijk is en veel ontmoeting, mensen voortdurend kunnen ontmoeten.

Maar in het kader van ontmoeten werkt dat wel heel erg goed (over het verspreiden van de kantine).

En het idee daarachter is dat je de werkplek zoekt, die past bij het werk wat je op dat moment doet. Dus feitelijk niet de gehele dag op dezelfde plek zit.

Het (activiteit gerelateerde werkplekken) is een efficiëntie maatregel, maar ook om delen en ontmoeten te bevorderen. Blijf niet de gehele dag met hetzelfde groepje collega's zitten.

Doordat die afdelingen beter samenwerken, meer van elkaar leren en kennis ook beter gedeeld wordt, kom je tot slimmere concepten.

Dat (ICT) maakt het dus veel makkelijker om vanuit huis of vanuit ergens anders deel te nemen aan de vergadering, elkaar te zien en kennis te delen.

En ga vergaderen van je werkplek thuis.

Voorheen kon je daar dus niemand voor vinden en deed je het maar weer zelf, waardoor het wiel een aantal keer opnieuw werd



uitgevonden. Dat is nu niet meer nodig.

Voor mij zit dat onderscheidt meer in de snelheid waarmee ze dat doen. De hoeveelheid informatiestromen die ze eigen maken, om daar wat van mee te pakken en tegelijkertijd, hun eigen koers uitzetten. Zonder daar stapel gek van te worden. Dat is wel een vermogen. Dat ze continu van alles op de hoogte zijn en daar zit hem vooral het verschil wat mij betreft. Het om kunnen gaan met die hoeveelheid aan informatie.

Wat voor rol je speelt voor mensen in je team die nog bepaalde kwaliteiten willen ontwikkelen, dat bevordert ook samenwerking en het leren van elkaar

*Other behavioral changes*

Een flex omgeving en tijd en plaatonafhankelijk kunnen werken dragen daar allemaal aan bij. Dat maakt dat mensen anders naar hun werk gaan kijken.

Welke resultaten spreken we met elkaar af. Je kunt namelijk ook niet meer leidinggeven op de manier zoals je gewend was, op aanwezigheid. Tegenwoordig is dat natuurlijk meer resultaat.

We schrijven niet voor hoe iemand moet werken en ook niet waar. We maken afspraken over het resultaat, je toegevoegde waarde. Verder ligt het toch wel veel op het vlak van mensen. Vrijheid geven, vertrouwen, verantwoordelijkheid geven en verlangen. Dus vrijheid maar geen vrijblijvendheid. Maak goede afspraken met elkaar. Ga de dialoog aan over hoe je je werk invult en wat je toegevoegde waarde is.

We leggen die beïnvloeding lager in de organisatie. Dus geef je de mensen meer invloed op wat er gebeurt. Dus vanuit het oude werken is dat meer top-down en vanuit HNW is dat meer, jullie hebben de kennis, jullie zijn de vaklieden, dus geef zelf eens aan hoe je, je processen zou willen inrichten.

Zet mensen in de juiste omgeving, geef ze de juiste middelen HNW bestaat ook uit die driepoot, de ICT, mensen de middelen geven, draadloos netwerk, de toolkit, de facilitaire poot is de omgeving. Belangrijkste factor is toch gedrag. Hoe gedraag je je nou in de nieuwe omgeving met die nieuwe middelen.

Teamcohesie, hoe vaak zien we elkaar nog in Arnhem, want teams zitten niet meer perse bij elkaar

Jonge trainees. Die willen nooit meer wat anders. Het is erg succesvol. Geen indicatie dat de Y-generatie positiever is dan de X-generatie. Dat had ik wel verwacht. Leeftijd speelt kennelijk niet een dergelijk grote rol

## Appendix two - the interviews

1. Wat was de belangrijkste reden om over te gaan tot invoering van HNW?
  - a. Waarom die reden?
  - b. Is dat resultaat behaald en gemeten?
    - i. Zo ja, hoe?
    - ii. Zo niet, hoe komt u tot deze conclusie?
  - c. Wat zijn (daarnaast) de belangrijkste resultaten van HNW voor uw organisatie
  - d. Waarom zijn deze resultaten de belangrijkste/wat heeft het voor de organisatie opgeleverd?
  - e. Hoe bent u tot deze resultaten gekomen (wat zijn hierbij kritische succesfactoren geweest?)?
  - f. Zijn de resultaten gemeten?
    - i. Zo ja, hoe zijn deze gemeten?
    - ii. Zo niet, hoe komt u tot deze conclusie?
  
2. Wat zijn binnen de invoering van HNW kritische succes factoren geweest?
  - a. Wat was het startpunt/aanleiding voor de 'invoering' van HNW?
  - b. Hoe heeft het verandertraject eruit gezien?
  - c. Is er hulp van een externe geweest?
  - d. Welke gebieden/aspecten van de organisatie zijn veranderd?
    - i. Hoe heeft die verandering eruit gezien?
    - ii. Waarom die gebieden/aspecten?
    - iii. Wat hebben die veranderingen voor de organisatie opgeleverd?
  - e. Was er weerstand?
    - i. Zo ja, waarom?
      1. Hoe bent u daarmee omgegaan?
    - ii. Zo niet, waarom niet?
  
3. Wat zijn de belangrijkste 'lessons learned' bij de invoering van HNW?
  - a. Wat zou u misschien anders hebben aangepakt?
  - b. Hoe zou u dat dan hebben aangepakt?
  
4. Als u HNW voor uw organisatie zou moeten beschrijven in een paar zinnen, hoe zou u dat dan beschrijven?

## Appendix three - the logbook

Bedankt voor uw deelname aan mijn onderzoek!

Mijn onderzoek zal zich gaan richten op interactie en hoe de werkplek (het kantoor, op straat) daar aan kan bijdragen. Voor deze meting wordt u gevraagd om dit logboek 7 dagen bij te houden (dit hoeft niet achtereen). U heeft tot *en met 17 maart* de tijd.

### Uitleg:

1. Aan uw naam zal een code worden verbonden die alleen ik te weten kom, het onderzoek is dus anoniem.
2. U hoeft alleen het logboek in te vullen wanneer u interactie heeft gehad die aansluit op de categorieën vermeld op de achterkant van het logboek. **Alle vragen gaan over overlast.**
3. Per dag graag een nieuw logboek gebruiken. Opmerkingen kunt u op de 'opmerkingen pagina' kwijt.
4. Inleveren kan in het daar voor bestemde postvakje.
5. Op het invulformulier kunt u per categorie een aantal factoren aankruisen (dit zijn er minimaal 4). Graag per categorie noteren. *Bijvoorbeeld: op straat krijgt u spontaan een telefoontje van de GG&GD over het uitoefenen van observatie met betrekking tot jeugdoverlast en het betrekken van buurtbewoners. Op het logboek zet u onder kolom 1 en onder kolom 5 een streepje bij ICT, spontaan, op straat en GG&GD. Op het opmerkingen formulier kunt u dan nog kwijt dat het telefonisch en met de GG&GD was.* Er mogen meerdere streepjes in de vakjes terecht komen.

**Met betrekking tot overlast** (bijvoorbeeld; jeugd (groepen), drugsgebruikers, psychisch gestoorden, burenruzies enz.) **heb ik door interactie:**

Categorieën:

1. burgers (ondernemers en hun medewerkers, bewoners) bij de aanpak van overlast kunnen betrekken en ondersteunen (zoals huisbezoek, buurtbijeenkomst organiseren, stimuleren van het doen van aangifte)
2. een hulpverlenende instantie kunnen inschakelen of adviseren over overlastgevende groepen of personen
3. een plan van aanpak, interventies of criteria kunnen schrijven (bijvoorbeeld voorstel voor een jeugdvoorziening of criteria met betrekking tot de locatie van opvanglocaties)
4. een vermelding van overlast kunnen maken in BVH en/of andere databases.
5. gericht kunnen observeren van overlast of een nieuwe overlast locatie kunnen aanduiden
6. heb ik repressief kunnen optreden (verwijderingsbevel, strafrechtelijk vervolgen enz.)
7. heb ik wangedrag (geluidsoverlast, intimidatie of openbaar dronkenschap) kunnen corrigeren
8. tot (nieuwe) ketensamenwerking kunnen komen voor overlastgevende groepen of personen

<b>Datum:</b>	<b>Leeftijd:</b>	>30							
<b>Naam:</b>		31-40		<b>LOGBOEK</b>					
<b>M/V:</b>		41-50							
<b>Rang:</b>		51>							
<b>Categorie (1-8):</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Wijze:</b>									
Face-to-Face									
ICT (telefoon, email enz.)									
<b>Hoe:</b>									
Gepland									
Spontaan									
<b>Waar:</b>									
Eigen werkplek									
Iemand anders zijn/ haar werkplek									
Koffiemachine, gang, copier									
Kantine									
Vanuit huis/op straat									
Vergaderruimte, briefingruimte enz.									
Anders (bijv. toilet, roken, balie)									
<b>Met wie:</b>									
Ander team (bijv. recherche)									
Buurtregisseur									
Eigen team									
Buurtbewoner, school, GG&GD enz.									

<b>Naam:</b>
<b>Opmerkingen</b>
Dag 1
Dag 2
Dag 3
Dag 4
Dag 5
Dag 6
Dag 7