

Investigating the differences in word use frequencies between effective and ineffective young and old leaders in a large Dutch organization

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#### MASTER THESIS

# TitleINVESTIGATING THE DIFFERENCES IN WORD USE FREQUENCIESBETWEEN EFFECTIVE AND INEFFECTIVE YOUNG AND OLD LEADERS IN A LARGEDUTCH ORGANIZATION

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# Summary

Leadership is considered to be the heart and soul of an organization. Leaders have the ability to inspire their followers to work together as a team to achieve common objectives. However, little research has been done on the influence of age on the word use differences between effective and ineffective young and old leaders in the organizational setting. The quality of communication is the avenue by which effective leaders clarify their visions and foster participative leadership within organizations. The word use of leaders, is often cited as one of the most important characteristics of a successful and effective leader, because leadership is enacted through communication. The word use of leaders motivates and inspires followers to work hard and achieve team targets and organizational goals. Due to the aging workforce populations, age diversity has attracted a lot of attention in the work field. Therefore, organizations have to deal with both young and old leaders. An important matter in the age variety literature is how the difference in age affects the role of leadership, and more specifically, the way of communication between leaders and followers. In this study, 50 leaders were videotaped during regular staff meetings in an organizational setting to record their verbal communication style. The Linguistic Inquiry and Word Count (LIWC), a text analysis program, was used to capture word classes and assign words to predefined categories. A median split, an independent samples T-test and a two-way Anova analysis in SPSS were then executed to measure which leaders are perceived as being more effective and the differences in word use between effective and ineffective young and old leaders. No statistically significant differences were found between the word use frequencies of effective and ineffective young and old leaders. This implies that age and leadership effectiveness did not had an influence on the word use of young and old leaders. The information of this study may assist future research where age, leadership effectiveness and word use of leaders play an important role in organizations. Examining the relationship between demographic variables and leadership effectiveness in relation to communication could be valuable to organizations since they can be used together with other elements as predictors of leaders' effectiveness in communication.

Keywords: effective communication, word use, age, effective leadership

## 1. Introduction

Leadership is considered to be the heart and soul of an organization (Spinks & Wells, 1995). Many researchers explain that a leader is the one who has an ability to take charge, direct, encourage and stimulate others (Luthra & Dahiya, 2015). Leaders have clusters of leadership qualities, like ensuring persuasion, responsibility, providing support and motivation to their followers, and making clear what their expectations are from their followers (Shokri et al., 2014).

However, to ensure organizational success, leadership must be effective. Effective leadership is regarded to be fundamental for the success of any organization, because leaders in an organization have the ability to inspire followers to work together as a team to achieve common objectives (Di Meglio, 2007; Clohisy, Yaszemski, & Liman, 2017; Luthra & Dahiya, 2015; Spinks & Wells, 1995). According to Barret (2006), effective leadership can be described as inspiring and encouraging followers by systematic and meaningful sharing of information by using excellent communication skills. An important determinant of effectiveness is the communication style, more specific, the word use of leaders (Di Meglio, 2007). According to Luthra and Dahiya (2015), leaders must be effective and convincing communicators because the word use of leaders is widely known to be one of the most influential factors which impacts leader effectiveness (Thyler, 2003). It is essential that leaders and their followers must learn how to grow to communicate effectively as this will not only help teams to complete their tasks successfully, but also enable organizations to achieve success and growth (Frese, Beimel, & Schoenborn, 2003).

Communication skills are fundamental to people who hold leadership positions because leaders need to explain, listen to, persuade, guide, coach, encourage, facilitate and direct their followers to meet the goals of individuals and their organisations (Luthra & Dahiya, 2015). Being able to express and receive messages are basic communication skills that all leaders should acquire (Shokri et al., 2014). These skills are essential to leaders' personal and professional success in life (Morealle & Pearson, 2000). This process is complex and starts from developing strategy for communicating, writing precisely and then speaking effectively to control difficult situation (Shokri et al., 2014). Scholars have observed that leaders spend 70 to 90 percent of their time on communication with one or another while working (Eccles & Nohria, 1991; Mintzberg, 1973) and there is a significant increase in this percentage with the invention of new communication technologies like mobile phones, e-mail, messaging, etc. (Luthra & Dahiya, 2015). This vast percentage of time spent by leaders in communicating highlights the importance of strong communication skills for leaders who want to grow and become effective leaders in the work field (Shokri et al., 2014). The lack of good communication skills results in a leader's failure to achieve the goals set by them and by organizations and makes them an ineffective leader (Maes, Weldy, & Icenogle, 1997). Leaders with ineffective communication skills are not able to comprehend input that has been transmitted and therefore are unable to prove guidance and support to their followers (Howell, Bowen, Dorfman, Kerr, & Podsakoff, 1990). Also, the problems are worsened when leaders fail to respond due to poor communication skills (Shokri et al., 2014). Hence, it is communication that makes leaders effective and gives them the ability to lead successfully (Barett, 2006; Frese, Beimel, & Schoenborn, 2003)

Due to the aging workforce populations, age diversity has attracted a lot of attention in the work field. The demographic changes in most industrialized countries, implies that the average age of working people is continuously increasing, and the workforce is becoming more age-diverse (Hoch, Pearce, & Welzel, 2010). This suggests that organizations have to deal with both young and old leaders. An important point of interest in the age variety literature is how the difference in age affects the role of leadership and their way of communication. Several studies that have been conducted on the relationship between age and leadership effectiveness found varying results. Some established that there is a positive correlation between age and leadership effectiveness. Research suggests that effective younger leaders are aware of the issues in their organization three years ahead of older leaders and have important insights about how society should be different (London, Zimmerman, & Erbstein, 2003; Stoneman, 2010). Additionally, younger leaders are often more creative willing to take risks in tackling problems than older leaders (Libby, Rosen, & Sedonaen, 2005; Stoneman, 2010). Having these qualities makes younger leaders more effective than older ones (Mortensen et al., 2014). Other studies also found zero or negative correlation; a study done by Boerrigter (2015) did not find any significance and concluded that older leaders are not better or worse than younger leaders in achieving effective leadership. She points out that the leader who is highly effective in one situation may be totally ineffective in another. Van Vught (2006) points out that evidence for this link can still be found in professions that require a significant amount of specialized knowledge and experience, such as in science and politics.

Due to these developments, researchers have recently shown an increased interest in the studying effects of age on work-related outcomes (Zacher & Frese, 2009). However, aging in general is growing but research on effective leadership, and more specifically, the influence of age on the differences in word use of leaders is still scarce (Walter & Scheibe 2013; Zacher, Rosing, & Frese 2011a). Many studies have done research on the link of communication in relation to leadership effectiveness, however, there are not many studies that analyse the influence of age and leadership effectiveness on word use (Yukl, Gordon, & Taber, 2002). The focus of this study will be to find out what the differences are in word use between effective and ineffective young and old leaders. More specific, the differences in word use between young and old leaders will be based on the following three communication categories: cognitive complexity, supportive and dominant words.

The contribution of this study is twofold: First, this research highlights the need for a more proactive approach to identifying leadership qualities and developing the word use of leaders throughout organisations. Second, the demographic changes have led to an increased interest in the study of leadership effectiveness and age. Therefore, studying leadership in relation to age is also of practical importance for organizations.

# 2. Theoretical framework

In this section, leaders age in organizations will be discussed, followed by explaining the importance of leadership effectiveness. Then, the link between communication and age will be provided. Finally, an elaboration on the communicative verbal categories will be analysed and presented in this section.

#### 2.1. Leader Age

Several countries are confronted with remarkable demographic changes, which have consequences for the composition of the working population and the workforce of organizations (Weigl, Muller, Hornung, Zacher, & Angerer, 2013). In the European Union, the number of young adults, between the ages of 25 and 39 years old, has started to decrease, whereas the number of older people, aged 55 and above, is expected to grow by nearly 15% until 2030 (Schalk et al., 2010). This may lead to an increase in older leaders in organizations and therefore making it crucial for organizational success to understand how increasing age may influence leadership communication (Schalk et al., 2010). Along with the extended labour participation necessary in many countries, this causes an increasingly aging workforce (Zacher & Frese, 2009). To enable effective leader development, organizations must get insight in differences in effective leadership of both younger and older leaders, because the increasing retirement age causes leaders to stay in their position longer instead of leaving the company and paving the way for younger individuals (Appelbaum, Wenger, Pachon-Buitrago, & Kaur, 2016; Philips & Siu, 2012; Zacher et al., 2011a).

According to Cagle (1988), age is one of the most important factors that defines the leadership style and behaviours which are displayed. He points out that age and experience are important contributors which influences how a leader behaves and communicates. Salthouse (2012) points out that, in general, for some leadership tasks, such as making difficult decisions, rapid communication processing is required which has been found to decline with increasing age. On the other hand, activities such as advising and mentoring, require more experience and accumulated knowledge as well as social competencies that are constant over time or even increase with age (Salthouse, 2012).

Chronological age is a noteworthy demographic trait variable in organizations because due to the aging workforce these demographic changes make it more challenging for organizations to attract new employees and to retain current staff (Bal, Kooij, & De Jong, 2013). Many researches have been conducted regarding what changes are seen in aging individuals, focusing for instance on how their motivations, behaviour and communication change with increasing age (e.g., Baltes, 1997; Carstensen, 2006; Carstensen, Fung, & Charles, 2003).

#### 2.2 Leadership effectiveness

Leadership effectiveness is one of the pillars of team effectiveness and organizational success (Zaccaro, Rittman, & Marks, 2001). A leader can be considered as an individual that guides a group of individuals and is responsible for their performance (Zaccaro, Rittman, & Marks, 2001). Leaders have the ability to affect the performance of a team by the ability to influence their followers (Antonakis, Day, & Schyns, 2012). Effective leadership has the power to influence team dynamics and can help to establish a united team. Chemers (2001) point out that "leadership is not a coercive process, it involves obtaining and utilizing the assistance of other people" (p. 1). Moreover, effective leadership has the ability to increase the awareness of joint objectives and is consequently valuable for organizational prosperity (Irving & Longbotham, 2007). Therefore, according to Khan and Anjum (2013), effective leadership is a crucial source of competitive advantage.

Effective leadership is often defined differently. Riggio (2016) explained that there are several different definitions of effective leadership but various have the same components. According to Riggio (2016), effective leadership is defined as "the ability to move collectives toward the attainment of goals" (p.1). When referring to leadership effectiveness in this study, the definition of Riggio will be utilized. The Multifactor leadership questionnaire (MLQ) is the most commonly used measurement instrument to measure perceived leadership effectiveness. The MLQ evaluates three different leadership styles: transformational, transactional and passive-avoidant. It allows to measure how leaders are being perceived by their followers with regard to specific leadership styles from passive leaders, to leaders giving contingent rewards to their followers, to leaders who transform and inspire their followers and give them a chance to be leaders themselves can be measured with the MLQ (Kolesnikova & Mykletun, 2012; Avolio & Bass, 1995).

Several studies that have been done discovered significant age effects on leaders' effectiveness. As already mentioned in the introduction, contradictory findings were found (Walter & Scheube, 2013). Shore, Cleveland and Golberg (2003) pointed out that followers were more satisfied with their work when they had an older leader. Also, in certain tasks the

older leaders perform better and are more effective than younger leaders (Kotur & Anbazhagan, 2014). For example, according to Kaifi and Mujtaba (2010), older leaders communicate better which in turn leads to giving better advice about how to accomplish the destined task than younger leaders. Additionally, with growing age, older leaders are more capable of understanding their followers better and can deal with them in a more positive way by communicating supportively (Kotur & Anbazhagan, 2014). On the contrary, according to Doherty (1997), younger leaders were perceived as more effective than older leaders, because younger leaders are often more creative and willing to take risks in tackling problems (Mortenson et al., 2014). This is also confirmed by research that has been done by Kotur and Anbazhagan (2014). Even though there is a stereotype that an older leader is a wiser leader (Zacher & Ball, 2012), age and knowledge are not always directly connected (Salthouse, 2012).

#### 2.3 Communication

Many scholars noted that communication is central to leadership (Awamleh & Gardner, 1999; Den Hartog & Verburg, 1997; Frese, Beimel, & Schoenborn, 2003; Kirkpatrick & Locke, 1996; Shamir, Arthur, & House, 1994; Spangler & House, 1991; Towler, 2003). Perkins (2009) notes that a substantial share of communication between leader and followers takes place in staff meetings where perceptions of leadership effectiveness are formed. Hence, it can be concluded that strong communicative capabilities are key for effective leadership, especially in staff meetings.

According to Deva and Yazdanifard (2013), communication is about reaching mutual understanding in which leaders and followers not only exchange information but also create and share meaning. They point out that communication is the crucial determinant of the response one obtains (Deva & Yazdanifard, 2013). It can be stated that communication, more specific, the word use approaches lead to differentiation between ineffective and effective leaders since the main role of a leader is to influence their followers (Deva & Yazdanifard, 2013). Communication is critical in determining whether a leaders' message will be recalled and embraced (Conger & Kanungo, 1988; Locke et al., 1991). Pondy (1978) points out that effective leaders can help their followers to understand why and how the activities they are engaging in are meaningful, and this is mostly accomplished through language and interpersonal communication, for example by using metaphors and symbols. Effective leaders may tend to communicate using more metaphors, symbols, imagery and persuasive arguments

to influence others to accept their position (Bass, 1999). Additionally, it is the word use of leaders that plays an essential role in generating and processing thoughts (Frese, Beimel, & Schoenborn, 2003).

Since organizations and employees become progressively dispersed, communication becomes the fundamental means by which individuals exercise leadership (Penley & Hawkins, 1985) – in essence, "leadership is enacted through communication" (Barge & Hirokawa, 1989, p.21). The process of interaction and communication makes it possible for leaders to assist a group of followers in overcoming existing barriers to goal achievement (Frese, Beimel, & Schoenborn, 2003). Moreover, effective leaders are able to help their followers to reach its goals and objectives by expressing ideas that facilitates mutual understanding and agreement among followers (Barge & Hirokawa, 1989). Bass (1990) accentuate this and points out that the word use distinguish leaders who are successful and effective from those who are not. However, few have attempted to operationalize the word use of leaders in their everyday transactions with their followers (De Vries, Bakker-Pieper, & Oostenveld, 2010). Research indicates that one of the core elements of leadership is a leaders' word use (Frese, Beimel, & Schoenborn, 2003).

#### 2.3.1 Verbal categories: cognitive complexity, supportive and dominant words

In this study, verbal categories are selected that help classify individual differences in word use, namely cognitive complexity, supportive and dominant words. These categories are selected based on the different leadership styles that leaders expose, namely transformational, transactional and laissez-faire. The different leadership styles will not be the focus of this study, but it will highlight the reason why the three communication categories are chosen in this study.

Different types of leadership advocate difference in word use to influence followers (Men, 2014). Penley and Hawkings (1985) have concluded in their research that transformational leadership is highly saturated with relational aspects of communication, such as interpersonal concern and warmth, while transactional leadership is more saturated with the actual content of the information provided instead of the style of communication. A meta-analysis that has been conducted by Judge and Piccolo, (2004) on leaders' transformational leadership and transactional leadership, revealed positive effects. Most notable, leaders who were more transformational were strongly related to followers' job satisfactions, satisfaction with their leader, and leader effectiveness than initiating structure.

Cognitive complexity. "Cognitive complexity can be thought of as a richness of two components of reasoning: the extent to which someone differentiates between multiple competing solutions and the extent to which someone integrates among solutions" (Tausczik & Pennebaker, 2010, p. 35). These two processes are captured by the LIWC categories. For example, cognitive complexity words include exclusive words (e.g., but, without, exclude), which are useful in making distinctions, and conjunction words (e.g., and, also, although) which connect various thoughts together (Tausczik & Pennebaker, 2010). The influence of cognitive complexity suggests that cognitively complex leaders may be able to communicate more effectively in their groups and their self-confidence allows them to be more influential on their followers (Dobosh, 2015). It has been suggested that leaders decrease in their cognitive complexity over time (Dobosh, 2015).

Supportiveness. When leaders have a supportive (i.e., friendly and caring) communication style, it is associated with higher satisfaction among the followers (Buller & Buller, 1987; Prisbell, 1994; Schmid Mast, Hall, & Roter, 2007). According to Jones and Wirtz (2007), emotion is integrated in the supportive communication style because the goal of supportive communication is to express care and compassion.

A field experiment that has been conducted by Avey, Avolio, and Luthans (2011), showed that when leaders enacted the features of positivity (i.e., hope, optimism, resilience, and self-esteem), positivity and performance of followers were enhanced. Also, Norman, Avolio, and Luthans (2010) similarly demonstrated that leader positivity resulted in followers reporting more trust in leaders and higher perceptions of leader effectiveness. To motivate their followers, leaders frequently express positive emotions such as enthusiasm and satisfaction (Jones & Wirtz, 2007) and use words like "we", "nice", and "sweet" in their communication with their followers (Pennebaker, Boyd, Jordan, & Blackburn, 2015). Leadership theorists have explored that a leader's expression of positive emotion can have encouraging and motivational consequences (Bass, 1990; Conger & Kanungo, 1998). Negative emotions may affect follower perceptions of leader effectiveness and credibility (Bass, 1990; Conger & Kanungo, 1998). Macgeorge, Feng and Burleson (2011) established that effective supportive communication was characterized by highly person-centered verbal communication. Leader's supportiveness seems to be the most important communication style, because the supportive communication of a leader enhances knowledge donating behaviours to the leader and knowledge collecting behaviours from the leader (De Vries, Bakker-Pieper, & Oostenveld, 2010).

Dominance. A dominant communication style (i.e. controlling, power, negative word use) is associated with less satisfaction and less intrinsic motivation among followers (Noels, Clement & Pelletier, 1999). Leaders with a dominant communication style are associated with a mixture of directness, such as persisting, interrupting, indirectness, avoidance and not looking at someone while listening (Peeters & Van Emmerik, 2008) and use words like "mine" and "ugly" (Pennebaker, Groom, Loew, & Dabbs, 2004). Dominant leaders are often seen as ineffective because their word use leads to unwanted, undesirable and unproductive behaviour and it influences their followers negatively (Anderson & Martin, 1999). A dominant communication style is associated with low communication skills in general (Infante, 1995; Infante, Trebing, Shepherd, & Seeds, 1984) and includes a kind of aggression which is often employed as a means of argument, to express anger, or to manipulate another person's behaviour (Infante, Bruning & Martin, 1994). The study of De Vries, Bakker-Pieper and Oostenveld (2010), indicates that satisfaction is more often related to a friendly communication style, while a dominant communication style may be associated with performance. An explanation of this finding may be that leaders who focus more on taskoriented leadership (e.g., transactional) use a more dominant approach of communication because this type of leadership reflect content (e.g., rules, planning, and goal-setting) instead of style (e.g., friendliness, trust, and inspiration) (De Vries, Bakker-Pieper & Oostenveld, 2010).

A study by Kearney (2008) discovered that younger leaders were more likely to use transformational or transactional styles of leadership, both of which can be effective at motivating employees. In their communication, transformational leaders use inspirational and emotional talks to stimulate follower motivations to exceed self-interest for the good of the team (Rafferty & Griffin, 2004). This type of leadership is mostly linked to the use of cognitive complexity and supportive words (Bono & Judge, 2004). According to Rafferty and Griffin (2004), transactional leaders have a powerful effect on followers. Transactional leaders communicate clear and specific expectations to their followers as well as helping them to receive rewards and punishments for their performances (Schaubroeck, Cha, & Lam, 2007). Transactional leaders are aimed at monitoring and controlling their followers and this controlling can be achieved by using dominant words (Bono & Judge, 2004). Older leaders tend to have a more passive approach, also known as the laissez-faire style, to leadership because older leaders are more resistant to change and have a lower ability to learn (Baltes & Carstensen, 1996). According to Avolio and Bass (2004), younger leaders are more motivated by career ambition in comparison to older leaders. However, Zacher and Ball (2012) point out

that older leaders who use transformational or transactional leadership styles are often motivated by the desire to leave a meaningful legacy. In their study, Pennebaker and Stone (2003) explored the link between language and age. They concluded that with increasing age, leaders use more positive emotion words, fewer negative emotion words, fewer first person singular self-references, more past tense, and fewer future tense verbs. Additionally, age was also positive correlated with an increase in cognitive complexity (e.g. causation words, insight word, long words) (Pennebaer & Stone, 2003). Also, according to Lee, Park and Seo (2006) older leaders' language structure was more complex than that of younger ones. They point out that older leaders used longer words and sentences than younger leaders.

Ng and Feldman (2008) claim that the age of leaders, leadership effectiveness and word use may not be related to each other. However, not much is known on how age and leadership effectiveness influence the word use of leaders. Of the available research on the leader age and leadership effectiveness, they have generally confirmed that only insignificant relationships have been found (Vecchio & Anderson, 2009). According to Vecchio (1993), the leader's age and subordinates' satisfaction with the leader are not significantly correlated. There are other scholars who claim that there is an insignificant association between the leader's age and the subordinates' satisfaction, and with subordinates' work commitment (Barbuto, Fritz, Markin, & Marx, 2007). However, according to Clutterbuck and Hirst (2002) effective leaders are automatically good communicators because they communicate clearly and successfully. Baldoni (2004) points out that effective leaders communicate with openness, integrity, and honesty. Furthermore, effective leaders communicate with their followers to create a bond between leaders and followers (Baldoni, 2004). Effective leaders are able to achieve greater results because their communication leads to followers being better informed and having a better understanding of their roles (Baldoni, 2004). On a further level, researchers claim that ineffective leaders become obsessed by power and personal authority and therefore show narcissism, self-serving and self-centred behaviours and use their power to manipulate, intimidate and communicate in a one-way fashion (Conger, 1989; Conger & Kanungo, 1987; Howell & Avolio, 1992; O'Connor, Mumford, Clifton, Gessner, & Connelly, 1995; Yukl, 1999).

#### 2.4 Research question and hypotheses

Based upon the findings in research one can assume that the word use of leaders can be influenced by age and leadership effectiveness. A lot of research has been conducted in this context but not much is known about what the differences are in word use between effective and ineffective young and old leaders. Therefore, four groups of leaders, namely effective young, ineffective young, effective old and ineffective old leaders, will be compared with each other looking at age, effectiveness and word use. In this study, the following research question and hypotheses are proposed to guide the research:

#### Research question:

In this study the focus will be the word use of leaders. More specific, this study will analyse if age and leadership effectiveness have an influence on the three constructs of communication which are cognitive complexity, supportive and dominant words. The research question will be as follows:

"What are the differences in word use, looking at cognitive complexity, supportive and dominant words, between effective and ineffective young and old leaders in a large Dutch organisation?"

#### Hypotheses:

H1: Younger leaders are perceived by their followers as being more effective than older leaders.

H2: It is expected that there is a main effect of age in the use of cognitive complexity, supportive and dominant words, where younger leaders use more cognitive complexity words and older leaders more supportive words.

H3: It is expected that there is a main effect of leadership effectiveness on the use of cognitive complexity, supportive and dominant words, where effective leaders use more cognitive complexity and supportive words and less dominant words.

H4: It is expected that there is an interaction effect between age and leadership effectiveness on the use of cognitive complexity, supportive and dominant words.

# 3. Method

#### 3.1 Research design

This study uses two different data sources, namely (1) a survey measuring followers' perceptions of leadership effectiveness and (2) a text analysis of video-based transcripts to quantify the leaders' communication behaviour during regular staff meetings. Also, word clouds will be developed to show which words are exposed more often in each of the four groups, namely effective young leaders, ineffective young leaders, effective old leaders and ineffective old leaders.

The aim of this exploratory study is to analyse the word use frequency between effective and ineffective young and old leaders, where the results of young and old leaders will be compared in statistical software. Text mining contains a quantitative approach to the analysis of textual data (Kobayashi, Mol, Berkers, Kismihók, & Den Hartog, 2018). With a quantitative approach, data will be transformed from text into categories and numbers (Roberts, 2000). These numbers will represent the word use frequency of effective and ineffective young and old leaders and will be used for the differences of their communication style.

#### 3.2 Sample

The respondents consist of leaders from various teams of a large Dutch public-service organisation. The participants were not actively approached to participate in this study, because the video observations were collected for previous research. The participation was by voluntary basis, and participants gave approval to be filmed and were informed about their anonymity.

The sample consisted of 50 leaders. The 37 males and 13 females were on average 51 years of age (ranging from 27 to 62: SD = 7.88). It should be noted that two leaders did not fill in their gender and two leaders did not fill in their age. The two leaders that did not fill in their age were excluded from the data set. Their behaviours were video-recorded and the attending followers were asked to fill out a survey. This follower subsample consisted of 589 followers: 339 males and 208 females, 42 followers did not fill in their gender and 64 followers did not fill in their age. Their average age was 49 years (SD = 10.71).

#### 3.3 Procedure

This study analyses transcripts of video-taped staff meetings of work teams. There were 50 staff meetings in total with a duration between one and two hours. The 50 leaders and their followers were recorded during a randomly selected, regular staff meeting (Rogelberg, Allen, Shanock, Scott, & Shuffler, 2010; Romano & Nunamaker, 2001). The videos of the team meetings are readily available, because they had been collected for previous research. Before being recorded, the leaders and followers were promised anonymity. They were asked to ignore the three cameras that were placed in the room and conduct a normal team meeting. Habituation ensured quickly because the cameras were small and installed before the teams entered the room.

To control the reactivity assumptions, the followers were asked directly after the meetings to offer their views on the behaviour of the leader, for example: "to what extent do you find the behaviour of your leader during the videotaped meeting to be representative in comparison with non-videotaped meetings?" The response category ranges from 1 (not representative) to 7 (highly representative). The average score was M = 5.69, SD = 1.20, indicating that the leader's behaviours were representative.

#### 3.4 Data preparation

The transcribing will be digitally as well which implies that they will be typed out. An example of a transcript can be found in Appendix I. In order for text mining software to be able to analyse the data, the transcripts will first be prepared. This is called text data cleaning and enhances the quality of the data (Kobayashi et al., 2018). A check of each transcript is necessary to make sure that the spelling is correct and the use of symbols is consistent. To ensure this, a protocol has been used which can be found in Appendix II. This quality check determined that the raw data was not yet sufficient enough for immediate text analyses. The accuracy of the output data is determined by the quality of the text samples themselves. Therefore, it has been decided to correct all of the transcripts manually. To clean up the data, the steps from Pennebaker, Booth and Francis (2007) were followed. The steps included ensuring if the spelling is correct, if abbreviations are spelled out and if sentences end with a period, question mark or explanation mark.

The transcripts consist of speeches from the leader and the followers. The transcripts were converted into separate text files (.txt) for each follower and leader with the help of the programme R, to ensure that it is accessible for the text analysis. This made it possible

to analyse the data for each follower and leader separately. However, only the parts that contain the speech of the leader will be used in this study and this will form the input for the text mining software. The total amount of data contains 315.947 words. The method of classification, that will be used in the process of text mining, classifies the words in the text into predefined categories (Kobayashi et al., 2018). Those word use categories will be created in advance, based on the theoretical framework of the study. Examples of categories could be negative words, positive words, and more. The output of the text mining creates an output which in turn shows how often words of certain categories have been used. The LIWC software will be used to analyse this output and then a comparison between effective and ineffective young and old leaders can be made.

A median split, an independent samples T-test and a two-way Anova analysis in SPSS were then executed. The median split was used to constitute the effective and ineffective groups of young and old leaders and then an independent samples T-test was used to find out which of the two groups, young or old, were perceived as being more effective. Also, a two-way Anova was used for measuring where there was a difference in word use between the four groups. Finally, word clouds and the frequencies of the word use will be presented to give a clear overview of which words are used more often in each separate group.

#### 3.5 Measures

#### 3.5.1 Verbal communication

In order to measure the verbal communication of leaders the text-analysis software Linguistic Inquiry and Word Count (LIWC) was utilized. LIWC, developed by social psychologist James Pennebaker, is a word counting program that captures word classes and allocate words to predefined categories (Pennebaker, 2001). This program contains a Dutch dictionary that sorts words into categories with psychological meaning (Pennebaker, Francis & Booth, 2001). The LIWC program contains 76 categories. In this study, three constructs, which contains 13 categories, will be used to identify the individual differences in word use between leaders, namely cognitive complexity, supportive and dominant words.

Cognitive complexity is processed by five LIWC categories: (1) exclusion words (e.g., but, without, exclude), (2) conjunctions (e.g., and, although, also), (3) causation words (e.g., because, effect, hence), (4) insight words (e.g., think, know, consider) and (5) long

words (words longer than 6 letters). (Tausczik & Pennebaker, 2010). They will be all included in this study to measure the word frequency of cognitive complexity.

Supportive words are related to several categories in the LIWC software program. LIWC recognizes 620 words in this category (Pennebaker, Boyd, Jordan, & Blackburn, 2015). Research implies that the LIWC program correctly recognises emotionality in language use. For example, positive emotion words (e.g., love, nice, sweet) are used in a positive occasion, and more negative emotion words (e.g., hurt, ugly, nasty) are used in a negative occasion (Kahn, Tobin, Massey, & Anderson, 2007). Categories that are related to supportive words and that will be used to measure the frequency of supportive words are:(1) positive words (e.g., love, nice, sweet), (2) affiliation processes (e.g., friend, social), (3) 1<sup>st</sup> person plural pronouns (e.g., we), and (4) social references (e.g., mate, they) (Pennebaker, Boyd, Jordan, & Blackburn, 2015).

Dominance is referred to power. The categories that are associated with dominance in the LIWC software programme and that will be used in this study are (1) power (against, control, warn), (2) negative words (sad, ugly), (3) anger (e.g., hate, kill), and (4) self-references (e.g., I, me, my) (Pennebaker, Groom, Loew, & Dabbs, 2004).

The dictionary includes the origin version of these and the remaining words, so that, for example, the word "hate" in the dictionary would include "hateful" and any other word that included "hate" in it (Pennebaker, Boyd, Jordan, & Blackburn, 2015).

#### 3.5.2 Leadership effectiveness

This study will focus on the leadership effectiveness scores collected from the followers of the leader, because their perception of how their leaders' function is what matters in this study. This was measured by the four overall effectiveness items that are part of the MLQ-5X-Short package (Avolio & Bass, 1995). A sample item is: "My supervisor is effective in meeting my job-related needs." The response categories range from 1 (never) to 7 (always). All ratings were confidentially processed, and not a single person of the concerned organization did have access to the judgements of the followers.

#### 3.5.3 Word clouds of the four groups

Whereas LIWC is used for sorting words into categories with psychological meaning (Pennebaker, Francis, & Booth, 2001), word clouds are used as a means to provide an overview by distilling text down to those words that appear with highest frequency (Heimerl,

Lohmann, Lange, & Ertl, 2014). The word clouds in this study will deliver straightforward and visually appealing visualisation method for text. Also, the frequencies of the word use per group will be generated to provide a deeper analysis of which words are used more often between the for groups.

# 4. Results

In this section, the results of the study are reported, divided into descriptive statistics, an independent samples T-test and a two-way ANOVA analyses to test the communication differences between effective and ineffective young and old leaders. Also, word clouds of effective and ineffective young and old leaders are presented.

# 4.1 Descriptive statistics

#### 4.1.1 Median split

In order to categorize the leaders into young and old leaders a median split (M = 51) was conducted. A total of 50 leaders were categorized, whereas 22 leaders were under the age of 51 and were classified in the young group, and 28 leaders with an age of 51 and older were classified in the old group.

Another median split (M = 5,404) was conducted to divide the leaders into effective or ineffective leaders. From the 22 young leaders 11 were classified as effective leaders and 11 were classified as ineffective leaders. From the 28 older leaders 14 were categorized as effective leaders and 14 were categorized as ineffective leaders.

#### 4.1.2 Descriptive | age and leader effectiveness

The mean of the total sample for age is 50.68, and the mean for the total sample for leadership effectiveness is 5.30. In table 1 the means and standard deviations of age and leadership effectiveness are displayed.

	young	ctive leaders 11)	young	ective leaders = 11)	old le	ctive eaders = 14)	old le	ective eaders = 14)
	М	SD	М	SD	М	SD	М	SD
Age	42	8	46	4	57	4	55	4
Leadership effectiveness	5,68	0.20	4.73	0.49	5.80	0.22	4.95	0.49

Table 1- Descriptive statistics - age and leadership effectiveness

#### 4.1.3 Descriptive communicative categories | Cognitive complexity, Supportiveness,

#### Dominance

The mean of the total sample for cognitive complexity is 6.24%, and the mean for the total sample for supportiveness is 4.50% and the mean for the total sample for dominance is 0.92%. In table 2 the means and standard deviations of the frequencies of word use per group are displayed.

	young	ctive leaders 11)	young	ective leaders 11)	old le	ctive eaders = 14)	old le	ective eaders = 14)
	М	SD	М	SD	М	SD	М	SD
Cognitive complexity	6.20	0.52	6.45	0.58	6.20	0.43	6.14	0.44
Supportiveness	4.33	0.43	4.48	0.38	4.44	0.60	4.71	0.50
Dominance	0.94	0.12	0.90	0.13	0.91	0.12	0.94	0.11

Table 2 - Descriptive statistics group - communicative categories

#### 4.2 Difference in effectiveness between young and old leaders (T-Test)

An independent samples t-test was conducted to compare which group of leaders, young or old, are perceived by their followers as being more effective. There was significant difference in the scores for young leaders (M= 5.60, SD = 0.44) and older leaders (M = 5.92, SD = 0.33) conditions; t(48) = -2.932, p = 0.005. These results suggest that older leaders, in contrary to younger leaders, are perceived by their followers as more effective than younger leaders.

# 4.3 Difference in communication between effective an ineffective, young and old leaders (ANOVA).

A two-way ANOVA was conducted to compare the main effects of leadership effectiveness and age and the interaction effect between leadership effectiveness and age on the three constructs of communication: cognitive complexity, supportiveness and dominance.

A two-way analysis of variance was conducted on the influence of two independent variables (leadership effectiveness and age) on cognitive complexity. Leadership effectiveness included four levels (effective young, ineffective young, effective old and ineffective old) and age consisted of two levels (young and old). All effects were statistically insignificant at the .05 significant level. The main effect for leadership effectiveness yielded an F ratio of F(1, 46) = 0.763, p =.387, indicating that the effect for leadership effectiveness was not significant between effective young leaders (M = 6.18, SD = 0.54), ineffective young leaders (M = 6.45, SD = 0.56), effective old leaders (M = 6.19, SD = 0.40) and ineffective old leaders (M = 6.15, SD = 0.48) on the use of cognitive complexity words. The main effect for age yielded an F ratio of F(1, 46) = 1.06, p = .309, indicating that the effect for age was not significant, young leaders (M = 6.31, SD = 0.11) and older leaders (M = 6.17, SD = 0.09). The interaction effect was not significant, F(1, 46) = 1.22, p = .275.

A two-way analysis of variance was conducted on the influence of two independent variables (leadership effectiveness and age) on supportive words. Leadership effectiveness included four levels (effective young, ineffective young, effective old and ineffective old) and age consisted of two levels (young and old). All effects were statistically insignificant at the .05 significant level. The main effect for leadership effectiveness yielded an F ratio of F(1, 46) = 0.394, p = .533, indicating an insignificant difference between effective young leaders (M = 4.38, SD = 0.42), ineffective young leaders (M = 4.42, SD = 0.41), effective old leaders (M = 4.51, SD = 0.62) and ineffective old leaders (M = 4.65, SD = 0.48) on the use of supportive words. The main effect for age yielded an F ratio of F(1, 46) = 1.53, p = .222, indicating that the effect for age was not significant, young leaders (M = 4.40, SD = 0.11) and older leaders (M = 4.58, SD = 0.10). The interaction effect was not significant, F(1, 46) = 0.113, p = .738.

A two-way analysis of variance was conducted on the influence of two independent variables (leadership effectiveness and age) on dominant words. Leadership effectiveness included four levels (effective young, ineffective young, effective old and ineffective old) and age consisted of two levels (young and old). All effects were statistically insignificant at the .05 significant level. The main effect for leadership effectiveness yielded an F ratio of F(1, 46) = 0.024, p = .878, indicating an insignificant difference between effective young leaders (M = 0.94, SD = 0.11), ineffective young leaders (M = 0.89, SD = 0.12), effective old leaders (M = 0.91, SD = 0.11) and ineffective old leaders (M = 0.95, SD = 0.11) on the use of dominant words. The main effect for age yielded an F ratio of F(1, 46) = 0.102, p = .751, indicating that the effect for age was not significant, young leaders (M = 0.92, SD = 0.02) and older leaders (M = 0.93, SD = 0.02). The interaction effect was not significant, F(1, 46) = 2.455, p = .124.

#### 4.4 Word Clouds and frequencies

The word clouds and the frequencies of the word use of each group are presented and listed below. The word clouds show that the words that are used most often in all the four groups are "dat" (that) and "het" (it). Yet, the frequencies of how often each word is used differs in each group. Many words can be categorized in the cognitive complexity category, for example "dat" (that), "en" (and) and "het" (it). Words like "wij'(we) and "jullie" (you) can be categorized in the supportive word category. The words "ik" (I), "moet" (must) and "mij" (my) can be categorized in the category dominant word use (Tausczik & Pennebaker, 2010)

Figure 1 - Word cloud - Effective young leaders

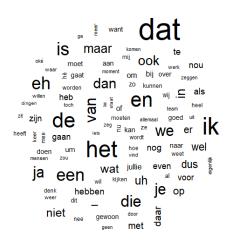


Figure 2 - Word cloud - ineffective young leaders

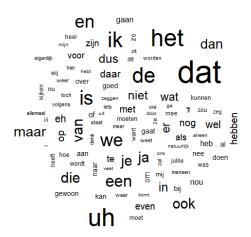


Figure 3 - Word cloud – effective old leaders

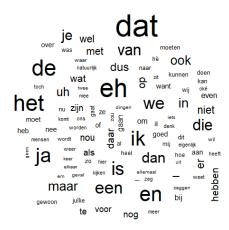
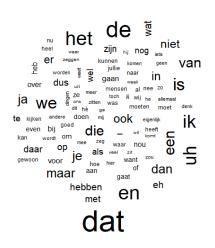


Figure 4 - Word cloud - ineffective old leaders



Words	Effective young leaders	Ineffective young leaders	Effective old leaders	Ineffective old leaders	Mean	Standard deviation
dat	2938	2151	3315	2949	2838.25	490.52
ik	2308	1373	2048	1618	1836.75	420.17
het	2162	1587	2333	1780	1965.50	342.22
de	1954	1400	2293	2132	1944.75	388.66
en	1879	1168	2102	1788	1734.25	399.88
is	1632	1249	1896	1513	1572.50	268.57
eh	1574	543	2701	690	1377	993.20
een	1559	982	1659	1289	1372.25	303.49
die	1413	842	1488	1217	1240	288.89
je	1332	859	1300	1041	1133	224.37
we	1323	1136	1632	1498	1397.25	215.27
van	1310	861	1457	1174	1200.50	254.13
ja	1291	836	2027	1073	1306.75	51.49
dan	1165	756	1341	1018	1070	24.75
ook	1113	861	1130	961	1016.25	128.39
in	1061	687	1202	922	968	219.46
maar	1002	818	1183	1009	1003	149.07
uh	948	1680	1079	1622	1332.25	372.68
_	910	270	1083	598	715.25	358.31
wat	881	632	763	733	752.25	102.51
niet	868	650	892	870	820	113.85
wel	796	526	816	587	681.25	146.41
dus	794	637	952	660	760.75	145.08
er	745	606	876	805	758	114.61
ор	733	510	826	623	673	136.72
daar	660	499	781	627	641.75	11.59
met	649	465	834	618	641.50	151.46
nog	596	493	642	543	568.50	645.73
hebben	586	473	741	665	616.25	114.56
te	579	418	588	574	539.75	81.37
nou	559	360	691	433	510.75	145.59
zijn	556	412	672	626	566.50	113.51
als	554	403	658	568	545.75	105.74
voor	535	390	574	499	499.50	791.64
heb	535	319	440	397	422.75	900.46
even	528	451	508	312	449.75	974.56
gaan	505	356	470	460	447.75	641.37
jullie	488	160	297	286	307.75	135.29
om	453	300	502	360	403.75	908.42
of	440	294	427	358	379.75	675.49
bij	403	260	465	425	388.25	892.69

Table 5 – Word use frequencies

aan	390	286	373	339	347	458.62
naar	390	217	319	252	294.50	764.48
um	390	68	75	76	152.25	158.54
over	386	225	379	416	351.50	858.47
gaat	368	216	311	314	302.25	631.84
want	361	209	388	310	317	789.30
kan	361	229	298	258	286.50	57.16
moet	356	207	335	248	286.50	706.75
gewoon	328	249	252	193	255.50	554.29
doen	301	224	321	303	287.25	431.15
nu	297	205	279	281	265.50	411.30
wij	292	140	308	213	238.25	755.56
zo	292	224	288	230	258.50	364.92
goed	289	222	418	221	287.50	926.37
hè	285	30	258	217	197.50	115.11
ze	278	161	332	323	273.50	786.32
dit	277	147	280	174	219.50	690.24
nee	273	221	393	247	283.50	760.24
kunnen	273	208	267	239	246.75	297.81
al	247	213	242	260	240.50	198.41
wil	243	106	192	122	165.75	63.62
heel	231	162	240	197	207.50	355.39
hoe	221	186	257	248	228	319.06
mij	221	211	223	150	201.25	345.68
wordt	217	193	206	141	189.25	336.29
kijken	217	152	189	189	186.75	266.63
moeten	214	192	304	249	239.75	488.42
worden	213	124	180	172	172.25	367.37
denk	196	131	205	136	167	389.10
mee	195	135	194	153	169.25	300.71
weet	194	129	173	176	168	276.04
heeft	191	143	207	209	187.75	307.83
meer	183	133	191	161	167	259.74
eigenlijk	183	131	183	162	164.75	245.81
ga	179	91	103	102	130.50	363.09
zeggen	175	96	134	130	133.75	32.36
team	173	75	100	91	110	439.01
mensen	173	103	187	223	171.50	502.89
zou	165	139	168	152	156	132.92
	158	81	137	132	130.25	339.55
geen keer	158	81	137	143	120.25	329.28
oké	158	82 82	134	97	120.23	49.83
allemaal	154	82 106	139	175	130.30	49.83 291.55
toch	154	98	137	173	143	291.33 306.31
	152	98 112	170	137	139.23	21.56
weer	152	51	103	56	90.50	472.19
vind	132	51	105	50	90.30	472.19

jij	144	95	200	152	147.75	429.91
door	144	82	111	101	109.50	259.55
komen	139	69	127	137	118	330.86
moment	138	68	78	54	84.50	37
werk	137	63	86	80	91.50	31.86
waar	136	114	187	202	159.75	415.72
willen	134	81	109	87	102.75	240.61
zeg	132	123	180	135	142.50	255.15
zit	132	102	168	118	130	281.42
iets	131	107	138	132	127	136.87
dingen	131	63	134	135	115.75	352.08
staat	130	106	119	85	110	193.39
geval	127	75	135	104	110.25	269.24

# 5. Discussion

This thesis presents an empirical study of 50 videotaped leaders. The videos are captured during regularly held staff meetings to identify leader's communication style in meeting settings which impact the perceptions of leadership effectiveness of followers. The study is guided by the research question: "What are the differences in word use, looking at cognitive complexity, supportive and dominant words, between effective and ineffective young and old leaders in a large Dutch organisation?"

In this study older leaders were perceived as being more effective than younger leaders, which means that the data did not support the proposed hypothesis (H1). This might be explained by the following. To be seen as effective or perceived as being effective by followers, leaders need a justification to be in the leadership position. This justification might be a consequence of matching the followers' expectations of what a leader should be like. For example, traditionally, leaders have been older than their followers which leads to the fact that those older leaders are more experienced, knowledgeable, and powerful which legitimizes them to be in the position to teach and direct their followers (Vecchio, 1993). Moreover, people most often expect leaders to be older than their followers and hence older leaders in comparison to younger leaders are more likely to be accepted as adequate leaders. Additionally, it should be noted that in the current study we did not focus on age differences between leaders and followers. Further research in this context could take this into account. Sessa, Kabacoff, Deal and Brown (2007) also recognized that leaders and followers of different generations do value leadership effectiveness differently. According to a study done by Riggio, Salinas and Cole (2003), showed that younger or older leaders who appear to be effective in one situation may not be effective in other situations. They explain that leaders may have more task-relevant knowledge in one situation that stimulates greater communication of his knowledge. Also, Rosing and Jungmann (2015) note that some people become more effective leaders as they get older and some become less effective. Results of their study showed that leaders who were perceived as having traits, like understanding of context or tolerate different view's, were seen as being the most effective leaders and that those who were adept at handling uncertainty were considered especially effective (Rosing & Jungmann, 2015). On the contrary, in other situations where task-related knowledge is lower, this same individual may communicate relatively infrequently. Also, interactions among generations with large diversity in age can foster creativity and innovation (Meredith et al.,

2002). On the other hand, it has been stated that these generational differences also can lead to negative organizational outcomes such as conflicts, misunderstanding and miscommunication (Jurkiewicz & Giacalone, 2004; Smola & Sutton, 2002). In today's organizations, followers of work teams have different ages and thus the heterogeneity of teams is increasing. This implies that followers have different needs and values. Therefore, in future research it would be of interest to pay attention to the differences in leaders' and their followers age.

There was no significant difference in word use of the three constructs; cognitive complexity, supportive words and dominant words between effective young and effective old leaders, which is not aligned with the formulated hypothesis (H2, H3, H4). There are two possible explanations for this unexpected result. First, gender differences may have an effect on the use of language leaders expose. In this study, 13 female leaders and 37 male leaders were involved. A big difference in the communication style between men and women boils down to the fact that men and women both interpret the purpose of conversations differently (Merchant, 2012). Academic research on psychological gender differences has recognized that women use communication as a tool to enhance social connections and create relationships. However, men use communication to exert dominance and achieve tangible outcomes (Leaper, 1991; Wood, 1996). According to Basow and Rubenfield (2003), women use more expressive, tentative, and supportive language then men do, particularly in situations of conflict. In contrary, men are more assertive and power-hungry (Merchant, 2012). Overall, it seems that women are more social-emotional in their communication with their followers, whereas men are more independent and unemotional in their communication (Merchant, 2012). Second, the organizational environment may have an influence in the language use of leaders. This study used data of a large Dutch public organization which has a traditional working environment. This implies that these types of organizations are largely based on a legislative, bureaucratic and rule-based approach to achieve their goals (Hartley, 2005). According to Hartley (2005), the population in these types of organizations is assumed to be fairly homogeneous and they rather stick to their traditional way of working. Therefore, change in communication and working behaviour does not occur often. Concluding, it can be stated that each organization has its own unique environment. This may influence how leaders behave and communicate to their followers. A leader may communicate in a way that they believe is appropriate to their environment (Tausczik & Pennebaker, 2010). An organization may influence a leader to communicate in a certain way, dress according to their standards and behave similarly to other colleagues whether the organization is aware of it or not. This is due to the influence of the situational environment (Morry, 2007). In this current study the

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situational environment was not taken into consideration. This could have had an influence on the results and it would be advised in future studies to look further into the effect of organizational environment on leader communication.

This study is advisable for leadership and management studies because observational methods are still seldom employed in leadership studies and especially in analysing videobased leadership communication, captured during regularly held staff meetings.

#### 5.1 Practical implications

The present study explored the influence of age on communication and leadership effectiveness and how those three elements are related to each other. Due to the aging workforce populations, age diversity has attracted a lot of attention in the work field. This implies that organizations have to deal with both young and old leaders. However, the large Dutch public organisation in which this study is based on, mostly included older leaders. Therefore, it is necessary to pay attention to their communication process which in turn enhances their effectiveness. Previous research that has been done in this context, explains that changes leaders experience when they become older cannot be characterized as a fixed process. Individual differences between leaders are very large and these differences increase with age. This led that there is a need for greater focus on the individual differences and not the differences of age in the groups.

Even though this study used a small sample this type of research seems promising for practice if more data is collected. Accurately analysing video-coded word use of leaders in regular staff meeting gives insights into which communication styles are more effective during staff meetings and which are less effective. Leaders are likely to develop themselves when they become more aware of the kind of behaviours they display in different work settings. Therefore, leader development programs could be enriched by such video-based research results.

#### 5.2 Strengths, limitations and future research directions

Using a mix of objective and subjective methods and data (video-based coding and surveys) is the strength of this research. The use of different data sources and methods reduces common method bias (Podsakoff, Mackenzie, & Lee, 2003). The objective video-based coding aids to observe the word use of leaders during regular staff meetings. Furthermore, the subjective surveys give a clear understanding of follower perceptions about the leader effectiveness. The current study is executed in a field setting: organizational

meetings, which is another strength of this study. Therefore, this study is able to analyse the use of words of leaders in a daily setting, which increases the external validity of the research.

However, despite the strength in this current study, also various limitations can be noted. First, the data and surveys were collected at one point in time. This causes a lack of insights to the incremental development processes. As mentioned before, leader's effectiveness and communication may vary in each team meeting. Therefore, future research may implement a longitudinal study design, that may provide insights in the process of causality of variables used.

Second, the sample size is small. In this study only 50 leaders were observed with an average age of 50.68 years, ranging from 27 to 62 (SD = 7.88) from one organization. The spread of age between the groups was not large enough so the results of differences in communication was more related to the older leaders. This implicates that in this study a sample size from a relatively older leader workforce is used; a restriction of the range. Thus, it was not able to observe a large group of younger leaders. Further research in this area is needed to examine the similar study when a wider range of age is used. Also, only one organization was studied. Future research should include more organizations, which result in a larger sample size of leaders and followers that strengthen the results.

The third limitation is the generalizability. Since this study only included Dutch leaders and followers, the generalizability of this study is limited to the Netherlands. This can lead to different analyses of observations. It might be that in other countries the video observations are analysed differently due to cultural differences. Therefore, it would be interesting whether the findings of this study are replicable in various other countries.

The fourth limitation relates to the word use frequency that was measured with the LIWC program. LIWC only maps the presence and frequency of particular words and it ignores how those words are actually being used and what relational and identity messages are being communicated when particular forms of language are applied. When not understanding the situated meaning of a message, certain words might be functioning differently in different contexts.

Future research in this area should focus on a larger leader sample in order to provide a clear distinction in communication between effective young and effective old leaders. Also, the video-observation method has this ability of being applied in a wider context, not only during regular staff meetings. Thus, video-based field studies can contribute to existing leadership literature and gives a clear view of the effective communication that leaders expose.

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# APPENDIX I

#### Example transcript

L: Nou goeiemorgen, we zijn compleet. Uh, Bram is er niet, die is nog aan het klussen. Onze twee Leancoaches hebben ook andere verplichten, uh, dus we doen het met deze groep. We worden op camera opgenomen hè, dat weten jullie. We worden op camera opgenomen hè, dat weten jullie, daar, daar en daar. Bij mij wordt de hartslag geregistreerd en alles wordt gefilmd en uh geregistreerd en daarna vernietigd. En aan het einde krijgen jullie nog een enquêteformulier, wij allemaal, dat duurt ongeveer twintig minuten. Zullen we beginnen?

F6: We kunnen gewoon beginnen.

L: Dat hoop ik. Als het goed is zien jullie de agenda op het scherm, dat is iets anders nu, ik hoop dat het goed te zien is. Kan jij zien <>? Zijn er nog aanvullingen op de agenda? Of wijzigingen?

F7: Een vraagje bij terugkoppeling NTKBK ga je het dan nog hebben uh over uh tweede ring?

L: Ja.

F7: En uh die notitie heeft niet op de agenda gestaan.

L: Klopt.

- F7: Dus daar ga je het ook niet over hebben?
- L: Dat het er niet is gaan we het niet over hebben, maar...

F7: Nee precies oké.

F12: Misschien mag ik hier even aanvullen, want normaal zet ik altijd de stukken van de NTKBK en de community, maar ik ben er gewoon niet aan toegekomen, dus uh...

L: Maar dit stuk heeft ook niet op de agenda gestaan.

F7: Nee.

L: Tweede ring.

F7: Nee, maar als je daar wat over zou gaan zeggen wou ik het misschien nog even aanvullen.

L: Oh dan doe jij het straks maar...

F7: Nee.

L: Want ik zag jou gisteren in gesprek met uh...

F7: Ja.

L: Met mensen uit Amsterdam en Den-Haag.

F7: Ja nee is goed.

# APPENDIX II

Transcript protocol

Categorie	Subcategorie	Markup	Voorbeeld	Uitleg
Spelling	Nummers	uitschrijven t/m twintig	vijftien 35.845	Schrijf nummers t/m twintig volledig uit, rest numeriek.
	Afkortingen Interpunctie	hoofdletters ! ? " "	ADHD Lisa vroeg het, um, gisteren nog, "Herman, weet je dit wel zeker?".	In hoofdletters zonder spaties. Gebruik leestekens consistent.
Niet vloeiend (disfluent) taalgebruik	Aarzelingen	uitschrijven	ah eh er uh um hmm	Gebruik ALTIJD één van deze zes vormen. Dergelijke aarzelingen (filled pauses) gebruikt men vaak tijdens het nadenken of uit onzekerheid.
	Onafgemaakte woorden o zinnen	f -	Absolu-	Geef onafgemaakte woorden of zinnen aan met single dash (-). Typ uit wat je hoort en zet de dash op de plek waar het woord of zin is afgebroken.
			Met de deur in huis val-	
	Spreker herstart een zin	_	De vergadering is gestar- Ik denk—ik denk dat het goed is zo.	K Gebruik double dash ( — ) met spatie aan beide kant wanneer de spreker stopt en zichzelf herhaalt, of wanneer de
			Dat slaat werkelijk nergen — wat een onzin.	spreker een uiting afbreekt en een nieuwe zin begint. s
Overig	Gehele zin of deel van zin onduidelijk	1 <>	De buren <wonen> naast ons.</wonen>	Probeer bij moeilijke passages uit de zin of context op te maken wat er wordt gezegd ( <wonen>). Weet je het echt niet, laat de haken leeg (&lt;&gt;).</wonen>
			Wie kan mij vertellen wat < >.	
	Interrumperen		F1: Ik wil graag	Persoon wordt geïnterrumpeerd (onderbroken) door een ander persoon.

	L: Jannie hoe wa je vakantie?	S
uitschrijven	jaja uhhuh yep	Schrijf uit zoals het wordt uitgesproken. Schrijf bij gelach het verbale component op:
	yeah mhm pft auw	L: En toen zei Sjaak: "Ben je blind ofzo?".
[]	sst [koffiepauze] [alarm gaat af]	Groep: Hahaha. Grappig hehe. Geef met blokhaken aan wanneer meeting onderbroken wordt.
		je vakantie? uitschrijven jaja uhhuh yep yeah mhm pft auw sst [] [koffiepauze]