Implementing a strong feedback culture
A case study at Nedap

Master's Thesis
by

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nedap
technology that matters

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Preface (Dutch)

De scriptie die voor u ligt vormt de afsluiting van mijn studententijd aan de Universiteit Twente. Na met veel plezier gestudeerd te hebben is dit het resultaat van mijn master Business Administration met als specialisatie HRM. Ik ben erg dankbaar voor de leuke maanden die ik bij Nedap heb mogen doorbrengen. In het begin was het even zoeken hoe ik het onderzoek moest aanpakken: toewerken naar een advies over het bereiken van een sterke feedbackcultuur. Een feedbackcultuur. Tja, wat is feedback eigenlijk precies? Wanneer weet je of je een cultuuromslag hebt bereikt? Welke factoren spelen er allemaal mee? Maar al snel begon het vorm te krijgen en kreeg ik door welke kant het op moest gaan. Ik heb erg veel geleerd, van hoe het er in een organisatie aan toe kan gaan tot hoe je de juiste informatie uit interviews kan halen. Daarnaast ben ik mezelf erg tegen gekomen. Ik heb veel stressmomenten gehad, het ene moment was dit wat duidelijker dan het andere moment, maar altijd kwam het weer goed.

Ik wil heel graag iedereen bedanken die mij heeft geholpen. Om te beginnen natuurlijk mijn begeleiders, waarvan eerst Irene Poppe. Ik ben je heel dankbaar voor je inzet om mij te helpen, of het nou om het onderzoek ging of om mijzelf. Ik heb van je geleerd dat mijn perfectionisme een goede eigenschap kan zijn, maar dat ik er niet in moet doorschieten. Ik heb ook geleerd dat het goed is om het beste eruit te willen halen, maar dat ik niet harder moet werken dan eigenlijk goed voor een mens is.

Ook Jan de Leede was een fijne begeleider. Je kon kritisch zijn maar was altijd positief en je nam altijd ruim de tijd voor onze besprekingen. Ook gaf je me af en toe een duw in de organisatierichting wanneer ik me dankzij mijn bachelor onderwijskunde me wat te veel mee liet slepen in de gedragswetenschappen. Ook wil ik Anna Nehles bedanken voor de frisse blik die je hebt gegeven als tweede begeleider. Direct was je geïnteresseerd in mijn opdracht en hielp je mijn scriptie naar een nog hoger niveau te tillen.

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Ik heb met veel plezier mijn afstudeertijd bij Nedap doorgebracht. Ik hoop dat ik mijn steentje heb kunnen bijdragen en dat mijn onderzoek een mooie basis vormt voor hun traject naar een sterke feedbackcultuur.

Abstract

Organisations challenge their employees to become lifelong learners, in order to have relevant and up-to-date knowledge and skills. Feedback is considered to be essential to this process, which is why feedback becomes a central subject to organisations. Nedap recognizes the importance of feedback and wants to transform itself into an organisation with a strong feedback culture. Since it is unknown how organisations can manage this process, this research will answer the following research question: How can an organisation implement a strong feedback culture?

A literature study revealed that four different feedback approaches exist: (1) feedback sign: positive and negative feedback; (2) feedback formality: formal and informal feedback; (3) feedback level: feedback about the task, process, self-regulation, and self; and (4) feedback subject: feedback about hard and soft skills. When constructive feedback is given with a balance in all these levels, it can be stated that the organisation has a strong feedback culture.

Literature explains what variables can be used to stimulate the feedback culture in an organisation, which are designated to three levels. On the employee level, five variables have an influence: (1) clear need, (2) psychological safety, (3) openness of the receiver, (4) feedback-seeking behaviour and (5) clear goals. On the organisational level, four long-term variables have an influence: (1) centralisation, (2) formalisation, (3) power distance, and (4) progressiveness. On the organisational level also four short-term variables have an influence: (1) vision communication, (2) importance emphasizing, (3) support providing, and (4) role models.

Qualitative research was used to determine the current situation in the organisation. During ten interviews with employees in two departments of the organisation, 64 per cent of the feedback messages that were mentioned was negative and only 36 per cent was positive. Additionally respondents explained they were more familiar with feedback on hard skills than with feedback on soft skills. The respondents also revealed that only little performance feedback is given. Therefore it is concluded that the current situation is a weak feedback culture.

The interviews revealed that six influencing variables are absent: (1) psychological safety, (2) clear goals, (3) centralisation, (4) importance emphasizing, (5) support providing, and (6) role models. These variables therefore need most work to implement a strong feedback culture. Also six variables are present: (1) openness of the receiver, (2) feedback-seeking behaviour, (3) formalisation, (4) power distance, (5) organisational culture, and (6) vision communication. Two variables are moderately present: (1) clear need and (2) openness of the other. Finally, the respondents gave suggestions for possible difficulties that might arise during the implementation and they gave several ideas that might facilitate the implementation process.

Based on the results and suggestions from literature, guidelines are provided to implement a strong feedback culture. First, the organisation needs to focus on the absent variables. Then the moderately present variables can be stimulated further and finally the variables which are already present can be strengthened.

The first suggested measure for implementation is to agree that all employees in a managerial position, including top management, will function as a role model, since role models can be used

to stimulate psychological safety, openness, recognizing a clear need, feedback-seeking behaviour and emphasizing feedback importance. Agreements must be made on which behaviour they will show and how frequently. Additionally, they can be provided with a training to learn how to give constructive feedback. Preferably all employees are provided with a training. Additionally, they can be provided with a document in which guidelines are given on how to give feedback.

The second suggested measure is to enhance the team spirit by stimulating teams to define their vision, to share this vision, and to share successes and failures with each other. The team spirit creates a safe environment for employees to give and receive feedback.

Third, formalisation can be used to get employees to define performance goals with their supervisor and to reflect on these goals during meetings for performance feedback. It can also be formalised that these meetings need to take place on a certain frequency. Additionally formalisation can be used to make feedback part of a daily routine, like making feedback a fixed part of the daily stand-up in scrum, and partly use the retrospective of scrum as a feedback moment with the team.

Fourth and final, the organisation needs to focus on their formal and informal communication methods. Vision communication is positive, while importance emphasizing is negative and they need to be congruent. Role models can be used to informally communicate with employees about feedback. When agreements on the subjects are made, these moments can be used to enhance all variables that influence the feedback process.

When all suggested implementation guidelines are followed the organisation has the highest chance to successfully implement a strong feedback culture.

Contents

Introduction

At an increasing rate employees and managers in organisations are challenged to become lifelong learners, in order to remain relevant to the organisation because of their up-to-date knowledge and skills (Mulder & Ellinger, 2013). Relevant knowledge and skills of employees are important to organisations, since talented employees are argued to be the most valuable asset of the organisation and key to organisational success (Mulder & Ellinger, 2013). Feedback is considered to be essential to learning and performance, which is why feedback becomes a more central subject to organisations (Linderbaum & Levy, 2010; Mulder & Ellinger, 2013). In its broadest sense feedback is a communication process in which information is given to someone about himself (Ilgen, Fisher, & Taylor, 1979). The information can regard to the other individuals performance (Hattie & Timperley, 2007; Kluger & DeNisi, 1996), although Ilgen et al. (1979) state that the feedback message comprises information about the recipient in general. In this paper feedback is conceptualised as a message provided by one individual to another individual about that other individual.

1.1 Nedap

Nederlandsche Apparatenfabriek Nedap (hereafter referred to as Nedap) is an organisation that acknowledges the importance of feedback. Nedap is an organisation in the business-to-business market that develops technological solutions for themes that are considered to be relevant. Different business units, which are called market groups, are responsible for their own research and development, marketing and sales. Their products are focused on one of the themes:

1. Energy Systems. This market group focuses on becoming independent of energy companies and saving money by using self-generated (solar) energy.

2. Healthcare. This market group focuses on increasing available time for care by automating administrative tasks.

3. Identification Systems. This market group focuses on solutions for long range identification of both vehicles and people.

4. Library Solutions. This market group focuses on supporting libraries to remain important in this era of information.

5. Light Controls. This market group focuses on energy saving light solutions.

6. Livestock Management. This market group focuses on simplifying the management of cows and pigs in husbandry.

7. PEP. This market group focuses on simplifying time registration in the temporary agency sector.

8. Retail. This market group focuses on optimising processes for retailers.

9. Security Management. This market group focuses on simplifying security management.

Nedap is an organisation with more than 700 employees and is therefore a large-sized organisation according to the Chamber of Commerce. Despite of the amount of employees, only three hierarchical layers are present: employees, market group leaders and the managing board. Nedap thus has a horizontal organisation structure.

1.2   Problem statement

Nedap developed a strategy to transform itself into an excelling organisation with excellent employees, called People Excellence. A part of this strategy is the shift from a weak to a strong feedback culture. As emerges from this shift, Nedap considers itself to have a weak feedback culture where most employees are not giving or receiving feedback. Nedap however beliefs that feedback is necessary for employees to keep developing themselves to improve employee performance and the performance of Nedap. These arguments are confirmed by multiple researches (e.g., Linderbaum & Levy, 2010). That is why Nedap wants to integrate both positive and negative feedback on both hard and soft skills in the work processes of all employees and managers in the organisation, on a daily and on a performance basis. An integration of feedback on a daily basis implies that everybody is going to provide each other with feedback and use the feedback they receive. Integrating feedback on a performance basis implies that every employee will receive feedback about their performance in the organisation. It is unclear however how can be assured employees and managers actually are going to give and use feedback. Further research into this subject is therefore necessary.

Research into how a strong feedback culture can be implemented in an organisation will provide insights into how organisations can improve their performance by stimulating their employees to communicate with each other more thoroughly. Research therefore contributes to knowledge about organisational performance. This research is specifically focused on Nedap. For that reason, the following research question will be central to this paper: "How can a large-sized organisation with a horizontal structure implement a strong feedback culture?" With the aim of answering the research question, five sub questions need to be answered:

1. What defines a strong feedback culture?

2. What variables influence a feedback culture?

3. How can the influencing variables be stimulated by an organisation?

4. What is the current situation in the organisation with regard to the feedback culture?

5. How can the gap between the current and the desired situation be closed?

1.3 Scientific and social relevance

Since feedback is considered to become an essential part for human capital as an organisational asset (Mulder & Ellinger, 2013), organisations need to have insights into how the feedback process can be stimulated throughout the organisation. Currently however to organisations it is unclear how they can change from an organisation where no feedback is given at all to an organisation where constructive feedback is given on multiple levels. Therefore, insights into which variables influence feedback processes in organisations and why is desirable information. Literature however gives staggered results. On the one hand, implications for organisational change are provided (e.g., Kotter, 2012); these are however not specified for the implementation of a feedback culture. On the other hand literature on feedback give information about specified topics of feedback like feedback-seeking behaviour (e.g., Krasman, 2010). No overarching research has been performed about introducing feedback as a type of organisational change, where business and social sciences meet. Research therefore contributes to scientific knowledge into how a strong feedback culture can be implemented in organisations by combining organisational and social research.

Aside from the scientific relevance research into implementing a strong feedback culture in organisations is social relevant as well. Organisations that are dealing with the same question as Nedap can use the results of this study and apply them to themselves. Insights into how a strong feedback culture can be implemented and be maintained over time can support organisations in enhancing the value of their employees and as a result the organisational performance and success.

1.4 Research design

To answer the research question a gap analysis will be performed. First a literature study will be done in order to identify variables that according to scientific research are contributing factors in the implementation process of a strong feedback culture and how these variables can be stimulated. The literature study therefore will be used to answer sub questions 1, 2 and 3.

After the literature study a qualitative research will follow, which consists of two parts. First, to get a first impression of the current situation, observations will be performed during the presentations of the CEO where the subject feedback culture will be introduced. Second, interviews will be done to identify which variables are already present in the organisation and to get opinions from employees on what measures will and will not work in Nedap. The data analysis will thus be used to answer sub question 2, 3 and 4. The combination of answers of sub questions 1, 2, 3 and 4 will lead to the answer of sub question 5. As a result, the overall research question will be answered.

The research is partly descriptive, since the current situation in the organisation is analysed through the observations and interviews. In the end the research is a gap analysis, since literature and information of the interviews is used to determine how the gap between a weak and a strong feedback culture in Nedap can be closed.

1.5 Structure of this thesis

In chapter 2 the theoretical framework will be discussed. In chapter 3 the methodology of the research will be explained. The results of the data analysis will be revealed in chapter 4. Based on the results of literature and qualitative research implementation guidelines will be provided in chapter 5. Conclusions will be drawn in chapter 6, after which in chapter 7 points for discussion will be given. To conclude, recommendations will follow in chapter 8.

Theoretical framework

To answer the research question a literature study has been performed. Literature will answer sub question 1 and partly sub questions 2 and 3. In this chapter, first different approaches to feedback will be discussed that contribute to a strong feedback culture. Second, the advantages and disadvantages of feedback will be given. Third, an explanation will be given on when the quality of feedback is high. Fourth, the process of feedback will be discussed, where is deliberated which variables are an influence to the steps of the process. The feedback process with the influencing variables leads to a conceptual model, which forms the base of this research.

2.1 Feedback approaches

It can be stated that feedback is a broad concept, as five different approaches emerge from literature. To start, the feedback sign refers to the distinction between positive and negative feedback (e.g., Hattie & Timperley, 2007; London & Smither, 2002; Ilgen et al., 1979; Harms & Roebuck, 2010). Positive feedback refers to giving someone a positive comment. Negative feedback refers to giving someone a critical comment (e.g., Harms & Roebuck, 2010; Morran, Stockton, Cline, & Teed, 1998). Usually negative feedback is given with the intention to help the other to improve his performance and/or behaviour. Negative feedback is thus about correction, which is why it is also called corrective feedback (Latting, 1992).

Either positive or negative, feedback about someones performance and/or behaviour in an organisation can be given by different people. The second approach is therefore about who the provider of feedback is. In literature the difference is made between formal and informal feedback (Gielen, Peeters, Dochy, Onghena, & Struyven, 2010; Van der Rijt, Van den Bossche, & Segers, 2013). In this case, formal feedback is provided by someone in a higher hierarchical position in the organisation (Gielen, Peeters, et al., 2010; Gielen, Tops, Dochy, Onghena, & Smeets, 2010; Van der Rijt et al., 2013) and informal feedback is provided by an employee on the same hierarchical level. Often this is a direct colleague, but it can also be an employee from a different department (Van der Rijt, Van den Bossche, Segers, & Gijselaers, 2012). Informal feedback is therefore also called peer feedback (Gielen, Peeters, et al., 2010; Van der Rijt, Van de Wiel, Van den Bossche, Segers, & Gijselaers, 2012). The formality of the feedback however can also refer to the setting of the feedback. When the distinction is based on the setting, formal feedback refers to feedback that is given in a meeting while informal feedback is given on the work-floor (Mulder & Ellinger, 2013).

Regardless of who the feedback provider is or whether the feedback is positive or negative, feedback can be given on different levels, which is the third approach in feedback literature. Gabelica, Van den Bossche, Segers, and Gijselaers (2012) distinguish two feedback levels: (1) performance and (2) process. Performance feedback refers to the results of a task that is executed by an individual or a team (Gabelica et al., 2012; Linderbaum & Levy, 2010). Hattie and Timperley (2007) state that performance feedback is feedback on the task level. Feedback on task level can be related to correctness, neatness, behaviour, or some other criterion related to the accomplishment of tasks (Hattie & Timperley, 2007). Process feedback on the other hand is about the way an individual or a team of individuals performs a task (Gabelica et al., 2012; Linderbaum & Levy, 2010). According to Hattie and Timperley (2007) process feedback is related to the processes that underlie or are related to the tasks. An example of such a process is a strategy that an individual or a team uses to accomplish a task. Hattie and Timperley (2007) argue that there are another two other levels of feedback: (1) self-regulation and (2) self. Feedback on the self-regulation level is concerned with commitment, control, and confidence of the individual. It is thus related to the attitude and self-image of the individual that influence the achievement of his work-related goals. The final level is feedback about the self as a person. Hattie and Timperley (2007) give the example of "good girl" which is a phrase that is usually used in a classroom setting. Such feedback however is minimally task-related since it is about the individual as a person and not about what he has achieved and how he achieved it. That is why it is argued that feedback on this level is less useful for the individual, although it can increase his self-confidence. Kluger and DeNisi (1996) however state that compliments on this level are appreciated by students, therefore possibly by employees as well. Feedback on the self-level therefore might be less relevant in terms of performance, but more relevant in terms of confidence. Hattie and Timperley (2007) do not give further insights about which feedback level is most important. To conclude, four levels of feedback can be distinguished: (1) performance, (2) process, (3) self-regulation, and (4) self.

Feedback can be given about different subjects, leading to the fourth approach in literature. Shuman, Besterfield-Sacre, and McGourty (2005) argue that a distinction can be made between hard skills and professional skills. Hard skills refer to the knowledge and skills regarding to a professional content, such as an ability to apply knowledge of mathematics, science and engineering, an ability to design and conduct experiments, and an ability to analyse and interpret data (Shuman et al., 2005). Professional skills on the other hand refer to the knowledge and skills regarding to a personal, emotional, social or intellectual content, such as communicating effectively, having an understanding of professional and ethical responsibility, and an ability to function in teams (Shuman et al., 2005). Although Shuman et al. (2005) argue the contradistinction of hard skills versus professional skills, haziness may arise since hard skills refer to a professional content. Additionally, the skills Shuman et al. (2005) refer to as professional skills are in many other studies referred to as soft skills (Robles, 2012). Therefore a better contradistinction would be hard skills versus soft skills, which will be used further in this research.

Usually feedback is given with the intention to help an individual by providing the opportunity to learn from other peoples views (Mulder & Ellinger, 2013; Shute, 2008). Whether the provider succeeds in helping the other depends on whether the feedback is given constructively or destructively (e.g., London, 1995; London, Larsen, & Thisted, 1999; Nowack & Mashihi, 2012; Li, Liu, & Steckelberg, 2010), suggesting a causal relationship between feedback delivery and the success of feedback. Constructive versus destructive feedback is therefore the fifth approach. Constructive feedback, also called facilitative feedback (Black & Dylan, 1998; Shute, 2008) is focused on possibilities of improvement. Destructive feedback however, also called directive feedback (Black & Dylan, 1998; Shute, 2008) is focused on what the individual is doing wrong (London, 1995). Constructive feedback is more accepted because of its positive nature (London,

1995; Leung, Su, & Morris, 2001). In contrast destructive feedback is less accepted due to its negative nature (London, 1995; Leung et al., 2001).

To conclude, there are five different approaches in literature that are used to conceptualise feedback:

1. Feedback sign

2. Feedback formality

3. Feedback level

4. Feedback subject

5. Constructiveness

When the first four approaches are all in balance in an organisation and when all provided feedback is constructive, it can be stated that the organisation has a strong feedback culture. When the approaches are not in balance and/or the feedback is destructive, it can be stated that the organisation has a weak feedback culture. Literature does not state how the feedback culture of an organisation should be defined where some feedback approaches are in balance while others are not, which is therefore debatable. A logic statement would be however that such a feedback culture is a mediocre feedback culture. Finally, it must be noted that in the vernacular formal feedback, feedback in a formal setting with someone higher in the hierarchy, is called performance feedback. Therefore, hereafter formal feedback will be referred to as performance feedback, and performance feedback will be referred to as task level feedback.

2.2 Feedback advantages

Constructive feedback in organisations can have a lot of advantages. To start, feedback is essential to an individuals learning process (Gielen, Tops, et al., 2010; Butler, Karpicke, & Roediger, 2008). Feedback makes the receiver reflect on his own behaviour (Gielen, Peeters, et al., 2010), gives the receiver insights into how his behaviour affects others (Rothke, 1986), and stimulates the use of this knowledge to change (Gielen, Peeters, et al., 2010). Feedback thus stimulates the personal development of the receiver and the motivation to personal development (Davies & Jacobs, 1985). Additionally, Butler et al. (2008) found that feedback can correct memory and metacognitive errors. Memory corrections are being made when an individual makes a mistake, is made aware of the mistake and will not make the same mistake again. A metacognitive error occurs when an individual is insecure about his performance while his performance is quite high. Positive feedback corrects the error and increases his self-confidence (Butler et al., 2008). Butler et al. (2008) also suggest when an individual is confident about the results of a task while the results are actually not good enough, feedback can correct the high-confidence error and raise awareness to the individual in following tasks. Feedback thus can also function as a mechanism to increase the self-confidence of the receiver when he is insecure and to raise cautiousness when the receiver is too confident (Butler et al., 2008). It must be noted however that the study of Butler et al. (2008) was performed with only college students as the research group. The results might have been different for employees in organisations. Still however the research gives an indication of advantages feedback might have in general.

2.2.1 Advantages for organisations

Aside from the individual, the organisation can benefit as well when feedback is given and used by employees and managers. First, the overall purpose of feedback is to help the receiver.

When the receiver uses the feedback, with the precondition that the feedback is of high quality, he can improve his behaviour and performance (Gielen, Peeters, et al., 2010; Salas, Rosen, & DiazGranados, 2010; Kluger & DeNisi, 1996; Van der Rijt, Van den Bossche, Segers, & Gijselaers, 2012). Second, feedback providers also seem to improve their performance (Gielen, Peeters, et al., 2010; Salas et al., 2010). Gielen, Peeters, et al. (2010) make a guess that people who provide feedback become more reflective themselves, more critical to their own actions and therefore more effective in their work. When both the provider and receiver become better executers of their work, the organisation also profits from the feedback process. Therefore, an organisation that embraces an open feedback environment improves its performance (e.g., Becker & Klimoski, 1989; Rosen, Levy, & Hall, 2006; Hattie & Timperley, 2007; Linderbaum & Levy, 2010; Kluger & DeNisi, 1996; London, 1995; Van der Rijt, Van de Wiel, et al., 2012).

Another advantage of feedback is that it increases pressure to perform well (Gielen, Peeters, et al., 2010), which results in a higher effort and commitment of employees in their work (Gielen, Tops, et al., 2010; Rosen et al., 2006; Norris-Watts & Levy, 2003). Feedback can also increase the job satisfaction of employees in the organisation. When a manager gives feedback to an employee with honesty and openness for discussion, the employee decreases his perception of presence of politics in the organisation (Rosen et al., 2006). As a result the employee has a higher job satisfaction, again resulting in more effort and commitment towards the organisation (Rosen et al., 2006; Morran et al., 1998; Coché, Dies, & Gottelman, 1991). It needs to be considered however that a decreasing perception of presence of politics can only occur when this perception is present among employees. When employees already argue the absence of politics, the advantage of a decreasing negative perception on politics does not occur.

Taken all together, feedback can have positive influences on the learning process and personal development of both the receiver and the provider, it can increase the performance of both the receiver and provider, and it increases effort and commitment towards the organisation. A precondition however is that the feedback is given according to several guidelines (Norris-Watts & Levy, 2003; Nowack & Mashihi, 2012; Smither, London, & Reilly, 2005; London & Smither, 2002).

2.2.2 Feedback disadvantages

Feedback can also have disadvantages. Belschak and Den Hartog (2009) found that especially negative feedback can have six different negative influences on emotions and behaviour of the receiver of the feedback. The negative emotions included in the research are disappointment, frustration, shame, guilt, embarrassment, fear and anger.

1. Negative emotions are significantly higher when receiving negative feedback than when receiving positive feedback.

2. Negative emotional experiences are significantly higher when receiving feedback in public than when receiving the same feedback in private.

3. Intentions to show counterproductive work behaviours will be higher when receiving negative feedback, especially in front of colleagues.

4. Turnover intentions will be higher when negative feedback is received.

5. Organisational Citizenship Behaviour intentions will be higher when receiving positive performance feedback than when receiving negative performance feedback.

6. Affective commitment will be higher when receiving positive feedback than when receiving negative feedback.

Relationships between positive feedback and negative emotions or behaviour have not been found by Belschak and Den Hartog (2009). Van Dijk and Kluger (2011) researched the relationship between feedback and motivation and between feedback and performance. They found that positive feedback can have negative influences on motivation and performance when the feedback is about a task that requires vigilance, such as error detection. Motivation and performance in such prevention tasks however increase when negative feedback is provided. Positive feedback has a positive influence on motivation and performance when the feedback is about a task that requires creativity. Negative feedback in this case negatively influences motivation and performance. Literature thus shows that feedback may have a lot of advantages, but disadvantages might arise depending on the type of tasks (Van Dijk & Kluger, 2011) and the emotions of the receiver (Belschak & Den Hartog, 2009).

2.3 Feedback quality

Feedback is not always effective (e.g., Leung et al., 2001). That is why a lot of research has been done about feedback effectiveness, which has resulted in guidelines that should be followed. The guidelines can be divided into three main categories: (1) the content of the feedback: what to say, (2) the delivery of the feedback: how to say it, and (3) the context of the feedback.

2.3.1 Feedback content

Before giving feedback, the feedback provider should decide what he exactly wants to say (Latting, 1992; Harms & Roebuck, 2010). Researches have given guidelines to make this decision. First of all, feedback should be focused on the behaviour of the other individual (Brinko, 1993; Hewson & Little, 1998). Behaviour is concrete and specific and therefore it is easier for the receiver to use the feedback compared to when it is focused on the individual as a person (Brinko, 1993; Hewson & Little, 1998). Personality is more difficult to change and negative feedback about personality has the risk of decreasing self-confidence of the feedback receiver (Hattie & Timperley, 2007). A focus on behaviour assures that the feedback is related to experiences, making it more tangible for the receiver of feedback to understand (Morran et al., 1998).

When the feedback has a corrective nature (i.e. negative feedback), the provider should give suggestions for improvement because this makes the feedback more understandable for the receiver (Brinko, 1993; Harms & Roebuck, 2010; Hewson & Little, 1998). Suggestions for improvement also provide some guidance for the receiver to use the feedback (Harms & Roebuck, 2010).

Even when the feedback is corrective, it is most effective when combined with positive feedback when it is provided to the receiver (e.g., Brinko, 1993; Norris-Watts & Levy, 2003). When the feedback is negative receivers have more difficulty in accepting the feedback. Combining the negative feedback with positive feedback reduces the negativity of the conversation (e.g., Brinko, 1993; Morran et al., 1998). In contrast, positive feedback can be given without negative feedback.

Finally, feedback needs to answer three questions: (1) Where am I going? (2) How am I going? (3) Where to next? (Hattie & Timperley, 2007). The first question is focused on the goals of the receiver. The second question is focused on how the receiver is performing. The third question is focused on the future goals of the receiver. According to Hattie and Timperley (2007), when all three questions are answered on the four different levels as previously discussed (task, process, self-regulation and self), all possible feedback is given to the receiver.

Summarised, the guidelines addressed by literature about the content of the feedback are:

1. Focus on behaviour

2. Give suggestions for improvement

3. Combine negative with positive feedback

4. Consider the level of the feedback and feedback questions

2.3.2 Feedback delivery

After the provider has decided the content of the feedback, he should consider how he is going to give the feedback (Latting, 1992). In this decision, four factors should be considered. First, the feedback needs to be constructive (e.g., Gielen, Peeters, et al., 2010; Van der Rijt, Van den Bossche, Segers, & Gijselaers, 2012; London et al., 1999; London, 1995). When feedback is constructive it is more accepted than when it is destructive (London, 1995; London et al., 1999). Destructive feedback decreases peoples self-esteem, which in turn negatively affects productivity and the atmosphere on the work floor (London, 1995).

Although feedback acceptance is a precondition for the receiver to even consider using the feedback, in order to be able to use the feedback it must be concrete, specific, and focused (e.g., London, 1995; Raemdonck & Strijbos, 2012). When an employee receives general feedback it makes him aware of other peoples thoughts about him, but it does not give further clarification of why. Concrete and specific feedback gives the receiver clarity about what is positive or negative about his behaviour and about how the feedback can be used for self-development (e.g., London, 1995; Raemdonck & Strijbos, 2012). Feedback thus should be descriptive, where is explained what exactly is positive or negative, instead of only evaluative, where only is stated if ones behaviour in general is positive or negative (Brinko, 1993).

When the feedback provider has described what behaviour is positive or negative, he should elaborate on why he is positive or negative about the specific behaviour (Shute, 2008; Raemdonck & Strijbos, 2012). An explanation of the feedback provider makes it easier for the receiver to understand why the provider gives the feedback and why it is valuable to use (Shute, 2008). As a result, the feedback is more effective (Shute, Hansen, & Almond, 2007).

After the feedback has been provided there should be room for response and interaction for the receiver, since the provider wants the feedback to be effective and the receiver needs to understand the feedback and the explanation. The receiver should be able to ask questions and discuss the feedback with the provider in order to fully understand the feedback and to have a chance to give counterarguments (London, 1995; Brinko, 1993).

Summarised, the guidelines addressed by literature about the delivery of the feedback are:

1. Be constructive

2. Be concrete, specific, and focused

3. Give an explanation

4. Give the receiver space for questions and response

2.3.3 Feedback context

Although the feedback provider needs to take time to decide the content of the feedback and how he is going to deliver the feedback, it is best to provide the feedback soon after occurrence of the behaviour to which the feedback is aimed. It is often argued that feedback then is most effective (Hoffman, Hill, Holmes, & Freitas, 2005; Ilgen et al., 1979; Shute, 2008; Brinko, 1993). A delay in feedback contains the risk that it becomes more difficult for the receiver to remember the exact situation the feedback refers to, which makes the feedback less effective.

While it is more effective to give feedback soon after the occurrence of the implied behaviour, feedback privacy needs to be taken into account. According to Leung et al. (2001) the chance of feedback acceptance by the receiver increases when individual feedback is given in privacy. Especially when feedback is corrective or formal, the privacy of the receiver needs to be respected. When the feedback provider takes into account the receivers privacy, the receivers perceived control over the situation increases, which contributes to feedback acceptance (Leung et al., 2001). Feedback thus should be given quickly. Nevertheless, time should be taken to move away from other individuals. An exception however is being made by Linderbaum and Levy (2010) who argue that only when feedback refers to a whole group in general, the feedback can also be given in the presence of the whole group.

A final consideration that needs to be made is although feedback is used to help someone to improve his performance and/or his behaviour, it is not a "one-time quick fix" (Brinko, 1993, p. 581), because usually repeated instances of feedback are necessary to change someones behaviour. Lack of immediate improvement therefore does not imply ineffectiveness of feedback. Instead, feedback needs to be considered as a process, implying that feedback about the specific behaviour of the individual should be given frequently (Ilgen et al., 1979). Frequent feedback is however only useful when the feedback is of high quality. When the precondition of high quality feedback is met it is more effective to frequently give feedback (Ilgen et al., 1979). It does however require motivation of the feedback provider to continue to give feedback multiple times about the same behaviour.

Summarised, the guidelines addressed by literature about the context of the feedback are:

1. Give the feedback soon after the occurrence of the behaviour

2. Consider the privacy of the receiver

3. Consider feedback as a process

To conclude, eleven guidelines need to be followed according to literature in order for the feedback to be successful. These guidelines are summarised in Table 1.

Table 1
Guidelines for feedback delivery

Category	Guideline
Feedback content	Focus on behaviour
	Give suggestions for improvement
	Combine negative with positive feedback
	Consider the level of the feedback and feedback questions
Feedback delivery	Be constructive
	Be concrete, specific, and focused
	Give an explanation
	Give the receiver room for questions and response
Feedback context	Give feedback soon after occurrence of the behaviour
	Consider privacy of the receiver
	Consider feedback as a process

2.4 Feedback process

Giving and receiving feedback forms a process in which a provider and a receiver are involved. First the provider gets a stimulation that triggers the thought of providing feedback. This

trigger, a formal feedback setting or an occurrence on daily basis that alerts the provider, makes the provider consider whether or not to provide feedback. When decided to give feedback, the provider gives the message to the receiver. Based on the quality of the message, the receiver does or does not accept the feedback. When the receiver accepts the feedback, he considers whether or not he is going to use the feedback. If the receiver decides to use the feedback there is finally the feedback usage.

Several variables have been shown in research to have an effect on the feedback process which can be used by an organisation to implement a feedback culture. Advice on how to succeed will be given for every variable. Research does not much differentiate between variables that differ in their influence for different feedback approaches. Only three variables specifically apply for performance feedback, as will be indicated at the discussion of these variables. Aside from these variables, no distinction will be made between variables that influence different feedback approaches.

The variables can be designated to two levels: (1) employees and (2) the organisation. The employee level refers to variables that are related to thoughts and the behaviour of employees and interactions between them as feedback providers and feedback receivers. The organisational level refers to variables related to the organisation itself. The feedback process and its influencing variables as discussed in this section will lead to the conceptual model on which further research is based.

2.4.1 Employee level

Five variables on the employee level influence the feedback process. The variable that is relevant first in the feedback process is a clear need. When an individual notices a situation where he is convinced feedback is necessary, he will sooner be inclined to provide feedback compared to a situation where the individual is not convinced of the necessity of feedback (Hoffman et al., 2005; Morran et al., 1998). Hoffman et al. (2005) give the example of behaviour that according to the provider interferes with the development of the receiver. When the provider is convinced that the noticed behaviour harms the development of the receiver, he will easily be inclined to give feedback (Hoffman et al., 2005). A clear need therefore stimulates the provider to consider feedback giving, which is the first phase of the feedback process. Hoffman et al. (2005) suggest that trainings could be offered by the organisation to learn to recognize when feedback can be necessary and appropriate. It can also be argued however that the organisation can stimulate the employees and managers to give feedback every time they think it can be given, although this approach might be less effective than a training.

The second variable that triggers the feedback provider is feedback-seeking behaviour of another individual. Feedback-seeking behaviour refers to individuals who proactively ask for feedback about themselves to someone else (Krasman, 2010). When employees explicitly ask for feedback, their supervisors and colleagues are stimulated to provide feedback. Feedback-seeking behaviour thus stimulates the feedback process in two ways: (1) the receiver voluntary engages in the process which makes it easier for the provider to give feedback and (2) the provider gets stimulated to provide feedback (Smither et al., 2005; Nowack & Mashihi, 2012). Nowadays employees are expected to take responsibility for their own development, which raises awareness among employees to develop their skills and knowledge (Krasman, 2010, 2011; London et al., 1999). As a consequence, employees start to proactively seek feedback to gain clarity about how they can develop themselves (Krasman, 2010; Van der Rijt, Van de Wiel, et al., 2012). Feedback-seeking behaviour can thus be stimulated by emphasizing the importance of taking responsibility and the role of feedback to develop skills and knowledge.

After an individual is triggered to think about feedback, he will consider whether or not he is going to provide the feedback. This consideration is influenced by the psychological safety of the provider, which implies that individuals need to feel safe to provide and to use feedback (Van der Rijt, Van de Wiel, et al., 2012; Edmondson, 2008). Psychological safety is present when an employee feels free to give critical feedback to others, and to use feedback without the need to be afraid of negative consequences for his self-image, status, or career (Van der Rijt, Van den Bossche, Segers, & Gijselaers, 2012). Edmondson (2008) states that "psychological safety makes it possible to give tough feedback (...) without the need to tiptoe around the truth" (p. 6). Lacking psychological safety causes the employee to fear loss of self-image or status as a result of making mistakes. As a consequence the employee will not give or use feedback. Therefore, psychological safety of both the provider and receiver is a precondition to implement a strong feedback culture in an organisation. According to Edmondson (2008) organisations can stimulate psychological safety. He argues that role models need to demonstrate openness, humility and curiosity to show that feedback does not need to have negative consequences. When individuals experience that feedback is not necessarily negative, they experience a safe environment to give and use feedback. As a result, psychological safety is stimulated.

The consideration to give feedback is also affected by openness to feedback of the receiver. When an employee is open to feedback, he is willing to listen to and use feedback in order to develop himself (Hoffman et al., 2005). Hoffman et al. (2005) suggest that when a receiver is open to feedback he will be more motivated to use feedback. They also suggest that when the individual is open to feedback the feedback provider will more quickly decide to provide feedback than when the other is not open to feedback. Suggestions for stimulating openness to feedback are not made by literature. It can be argued however that since psychological safety is stimulated by role models and psychological safety is also about the state of mind, openness can be stimulated by role models as well.

After the feedback has been accepted by the receiver, the receiver will consider whether or not he will use the feedback. The variable that influences this phase of the feedback process is the presence of clear goals of the receiver. In case of performance feedback, clear goals need to be present in order to use the feedback (Smither, Brett, & Atwater, 2008; Ilgen et al., 1979; Hewson & Little, 1998). Goals are clear when they are measurable. Measurability assures that close to no disagreement can arise in the evaluation about the achievement of the goals (Shute, 2008). Ilgen et al. (1979) argue that it is difficult to evaluate performance without goals and that feedback will be difficult to interpret and apply. Specific feedback without goals leads to knowledge of the receiver about what has been done in the task, but his performance remains uncertain. When the feedback is general as well it has no value, since the receiver has not gotten suggestions for improvement and it remains unclear how well he has performed. Clear goals are thus a precondition to use performance feedback and should be established by both the feedback provider and receiver. Literature does not however discuss the relationship between clear goals and feedback levels other than the performance level.

To conclude, five variables on the employee level influence the feedback process. These variables are summarised in Table 2.

2.4.2 Organisational level

On the organisational level a distinction can be made between organisational factors that are only flexible on a long-term notice and actions the organisation can take short-term. These factors and actions stimulate the implementation of a strong feedback culture, since they influence the whole feedback process.

Table 2

Employee variables that influence the feedback process

Variable	Influenced employee	Influenced feedback phase
Clear need	Provider	Trigger to think about feedback
Feedback-seeking behaviour	Provider	Trigger to think about feedback
Psychological safety	Provider	Consideration to give feedback
	Receiver	Consideration to use feedback
Openness receiver	Provider	Consideration to give feedback
	Receiver	Consideration to use feedback
Clear goals	Provider & Receiver	Consideration to use feedback

Long-term organisational variables

On the long term, four variables have an influence on the feedback process. First, formalisation has been found to influence the amount of formal feedback employees receive in the organisation (Medcof & Song, 2013; Katsikea, Theodosiou, Perdikis, & Kehagias, 2011). Formalisation is by Katsikea et al. (2011) defined as "the extent to which work activities are defined formally by administrative rules, policies and procedures" (p. 224). They found that since formalisation results in a uniform and structured process of information exchange between employees and their managers, formalisation is positively related to performance feedback. Formalisation of rules, policies and procedures can thus be used to implement meetings for performance feedback in an organisation. It must be noted however that the relationship between formalisation and feedback is only about formal feedback. No research has yet been done about formalisation and informal feedback.

Related to the formalisation of processes in the organisation, centralisation is shown to be related to formal feedback as well. Katsikea et al. (2011) define centralisation as "the inverse of the amount of delegation of decision-making authority throughout an organization, and the extent of participation by organizational members in decision-making" (p. 224), which is the second long-term organisational variable to influence the feedback process. Their research revealed that in a highly centralised organisation, the top management feels an increasing pressure to achieve the objectives of the organisation, while it simultaneously understands that organisational successes depend on outcomes of the employees. The top management therefore feels the need to monitor the activities and performance of the employees. Katsikea et al. (2011) however also found that organisational size moderates the positive relationship between centralisation and formal feedback. The relationship is stronger for small sized organisations than for large sized organisations, although the relationship remains significant (Katsikea et al., 2011). As with formalisation, centralisation is related to formal feedback. A relationship between centralisation and informal feedback has not been researched yet.

The degree of organisational formalisation and centralisation are connected to the organisational structure. Mintzberg (1980) defines five configurations to which most organisations can be assigned: (1) simple structure, (2) machine bureaucracy, (3) professional bureaucracy, (4) divisionalized form and (5) adhocracy. The organisational structure determines the degree of hierarchy in the organisation. An organisation with more authority layers, as common in a bureaucratic organisation, is more hierarchical than an organisation with less authority layers (Krasman, 2011). Layers of authority determine the power distance between employees (Leung et al., 2001). Power distance is "the degree of inequality in power between a less powerful individual (I) and a more powerful other (O), in which I and O belong to the same (...) social system" (Mulder, 1977). Hofstede (2001) specifies this further to "the power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can

determine the behaviour of S and the extent to which S can determine the behaviour of B" (p. 83). Power distance is thus determined by the hierarchical layer of both parties involved with the feedback.

It is argued that the higher the provider in the hierarchy compared to the receiver and thus the greater the power distance, the more the receiver will be inclined to use the feedback (e.g., Zagenczyk, Gibney, Murrell, & Boss, 2008; Brutus et al., 2006; Khatri, 2009; Madlock, 2012; Hoogervorst, Van den Flier, & Koopman, 2004). When the feedback provider is higher in the hierarchy, he will thus have less difficulty in persuading the receiver to use the feedback. On the contrary, when the provider is lower in the hierarchy, he will have more difficulty to persuade the receiver to use the feedback. Brutus et al. (2006) discovered that feedback receivers experienced difficulties in accepting feedback from non-supervisory sources. The research of Brutus et al. (2006) was performed in different countries with different cultures, but the phenomenon of difficulties regarding to the power distance was consistent. A solution proposed by Brutus et al. (2006) is that the top of the organisation needs to communicate the importance of providing and using feedback to all employees and managers, so awareness will be raised and more careful considerations will be made to use feedback (Brutus et al., 2006).

Power distance can be informal as well. Diefenbach and Sillince (2011) explain informal hierarchy as "unofficial stratification among members of a social system because of conscious or unconscious social processes" (p. 1516). Informal power distance thus refers to a difference between two individuals based on social processes within for example an organisation. To conclude, power distance is the third long-term organisational variable that influences the feedback culture of the organisation. A difficulty that arises however is when the organisation wants everybody to give feedback to everybody, feedback will also be given and received between colleagues on the same hierarchical level. As will be explained in the next section however, communication can be used to overcome this barrier.

The final long-term variable on organisational level that influences the feedback process is by Hoogervorst et al. (2004) referred to as the organisational culture. Organisational culture is about collective convictions and refers to basic values and beliefs that are shared among the employees (Hofstede, 2001; Hoogervorst et al., 2004). Hoogervorst et al. (2004) discovered that three dimensions of organisational culture affect the behaviour of employees: (1) excellence, (2) encouragement and (3) adaptability. Excellence represents convictions about excellent work performance. In an organisational culture with a focus on excellence, the employees and managers have a desire for excellent performance. Encouragement represents convictions about putting ideas into action and the openness to try out new ideas. In an organisational culture with a focus on encouragement, the employees and managers are open to change. Adaptability represents convictions about the necessity to change and to adapt to external conditions. In an organisational culture with a focus on adaptability, the employees and managers are motivated to adapt their work if required by external factors. These cultural dimensions have been shown to have a positive relationship with openness of individuals in such a way that a change in the organisational culture corresponds to a change in openness (Hoogervorst et al., 2004), which is as previously discussed a variable that influences the feedback process. As a consequence, organisational culture is an influencing variable as well. It must be noted however that organisational culture is a broader concept than Hoogervorst et al. (2004) use. For example, the feedback culture of an organisation can be defined as part of the organisational culture. It is therefore wise to use a different variable name, which is why the final long-term organisational variable in this research will be defined as progressiveness, which relates more specifically to the three dimensions that influence the feedback culture of an organisation.

To conclude, four long-term organisational variables influence the feedback process, which are summarised in Table 3. These variables influence every phase of the feedback process and

therefore stimulate the overall implementation of a strong feedback culture.

Table 3
Long-term organisational variables that influence the whole feedback process

Variable	Influenced employee	Influenced feedback phase
Formalisation	Provider & Receiver	All phases
Centralisation	Provider & Receiver	All phases
Power distance	Provider & Receiver	All phases
Progressiveness	Provider & Receiver	All phases

Short-term organisational variables

On the short-term, organisations can take four steps that have an influence on the feedback process. These steps are not order sensitive, but they are actions the organisations can take to create a feedback culture. The first step is for the top management to develop a vision and to communicate this vision to the employees and managers of the organisation (Kotter, 2012; Brutus et al., 2006). The vision needs to be feasible, easy to communicate, emotionally appealing and strategically smart (Kotter, 2012). A feasible and communicable vision is clear when all employees and managers understand what needs to be done when the vision is shared with them. An emotionally appealing vision implies that it can become an internal motivation for individuals and therefore needs to have a positive nature. A strategically smart vision implies that it contributes to the competitive advantage of the organisation (Kotter, 2012).

The vision needs to be formally communicated to the employees and managers of the organisation in order to become a vision of the whole organisation (Kotter, 2012). Brutus et al. (2006) have determined that communication of the vision is an important action from the top management in order to implement a feedback strategy as a result from the established vision. Without formal communication, haziness arises among employees and managers and difficulties in feedback acceptance might outweigh the motivation to provide and use feedback (Brutus et al., 2006). Vision communication is thus a variable that stimulates a feedback culture in the organisation.

With the presence of vision communication, the vision about feedback is formally communicated to the employees of the organisation. The importance of this vision however can also be emphasized informally, which is the second step the organisation can take to implement a feedback culture. Emphasizing importance is not a formal communication tool, but it lies in the implicit communication to make employees and managers intrinsically belief in the importance of feedback. Hoogervorst et al. (2004) state that congruence between the formal and informal communication is a precondition in order to successfully change behaviour of employees and managers. As a result, to implement a feedback culture, the formal and informal communication need to be congruent. When through formal communication employees are asked to give and use feedback while this is neglected on the work floor, employees will take the request for a feedback culture less seriously. Consequently, the implementation of a strong feedback culture will be less successful.

The congruence between formal and informal communication can be secured through several actions. London and Smither (2002) suggest for example that employees and managers need to recognize performance improvements as a result of feedback and that such accomplishments should be complimented. Morran et al. (1998) suggest that managers can encourage and motivate employees to carefully reflect on what they have learned as a result of feedback they received. Reflecting what one has learned raises awareness of the importance of feedback because

of their own experience. Both actions are examples of ways to match the formal and informal communication, which stimulates the feedback process.

When the organisation communicates its vision in a formal and informal way, the next step is to provide support to the employees to give and use feedback. When employees and managers get the tools to give and use feedback, individuals are likely to become positively oriented towards feedback (London & Smither, 2002). Such a positive orientation is necessary in order to implement a strong feedback culture, because individuals are more likely to give, accept and use feedback if they are positively oriented (London & Smither, 2002).

The support of the organisation can be providing a training to learn how to give useful and constructive feedback and to learn how to receive feedback. Organisational support can also be providing opportunities to discuss the concept of feedback (Morran et al., 1998), or the feedback employees and managers received in order to clarify the feedback and create understanding (London & Smither, 2002). Organisational support thus is about creating opportunities for employees and managers that make it easier for them to provide, accept and use feedback. As a result the process of implementing a strong feedback culture is facilitated.

When organisational support is present, the organisation can encourage the employees and managers to give, use, and ask for feedback by making an agreement with managers and a selection of employees to function as role models. A role model can be defined as an individual in the organisation regardless of his position in the hierarchy who works in line with the communicated vision (Arrata, Despierre, & Kumra, 2007; Kotter, 2012; Morran et al., 1998). When the organisation has the vision of a strong feedback culture, the role models will give feedback to colleagues and accept and use the feedback they receive themselves, regardless of the hierarchical position of the other.

Morran et al. (1998) state that "one of the most powerful tools for encouraging member-to-member feedback is for the leader to regularly model the giving of feedback (...)" (p. 263). When a manager functions as a role model the organisation shows that the people in the organisation who communicate the vision also follow their own conviction, instead of not executing their own vision and creating scepticism among the employees (Oxtoby, McGuiness, & Morgan, 2002). London and Smither (2002) argue that role models in the organisation have two positive effects on the feedback culture. First, since everybody frequently witnesses providing and using feedback, feedback becomes more normal and natural to them. The perception of feedback being normal to give and to use stimulates individuals to give and use feedback themselves, resulting in a strong feedback culture. Second, role modelling contributes to a positive orientation towards feedback since they frequently witness the effects of giving and using feedback. As previously discussed, such a positive orientation is necessary in order to implement a strong feedback culture, because individuals are more likely to give, accept and use feedback if they are positively oriented (London & Smither, 2002). A precondition is that role models should give feedback according to the guidelines as previously explained, otherwise the feedback will not be accepted by the receiver.

To conclude, there are four short-term organisational variables that influence the feedback process. These variables are summarised in Table 4.

Table 4
Short-term organisational variables that influence the whole feedback process

Variable	Influenced employee	Influenced feedback phase
Vision communication	Provider & Receiver	All phases
Importance emphasizing	Provider & Receiver	All phases
Support providing	Provider & Receiver	All phases
Role models	Provider & Receiver	All phases

2.4.3   Conceptual model

Literature has shown thirteen variables to have an influence on the feedback process which make it possible to implement a strong feedback culture in an organisation. The variables on organisational level influence the whole feedback process. They influence the triggers, considerations, acceptance and use of feedback. The openness of the receiver towards feedback influences both the consideration to give and to use feedback. Psychological safety influences the consideration to give feedback and the feedback acceptance. The other variables influence one of the phases in the feedback process. In Table 5 the feedback process and the variables by which it is influenced is summarised.

The process as specified in Table 5 can be converted to a schematic representation of feedback in organisations. The schematic representation forms the conceptual model and is presented in Figure 1.

Table 5
Variables influencing the feedback process

Phase	Variable	Definition	Function
Feedback process as a whole	Centralisation*	The inverse of the amount of delegation of decision-making authority throughout an organisation, and the extent of participation by organisational members in decision-making	Stimulation
	Formalisation*	The extent to which work activities are defined formally by administrative rules, policies and procedures	Stimulation
	Power distance	The distance between the feedback provider and the feedback user determined by the hierarchical layer of both	Stimulation
	Progressiveness	Collective convictions about basic values and beliefs that are shared among employees in terms of excellence, encouragement and adaptability	Stimulation
	Vision communication	The degree to which the management of the organisation formally communicates with employees about feedback	Stimulation
	Importance emphasizing	The degree to which the management of the organisation informally communicates with employees about feedback	Stimulation
	Support providing	Support from the organisation to provide and use feedback to and from each other	Stimulation
	Role models	Presence of employees/managers who provide colleagues with (high quality) feedback and use the feedback they get themselves as an exemplary role	Precondition
Trigger to think about feedback	Clear need	The felt need of the provider to give feedback to the receiver with the intention to help the receiver to develop himself	Stimulation
	Feedback-seeking behaviour	The seeking of feedback from a colleague by a colleague	Stimulation
Consideration to give feedback	Psychological safety of the provider	Provider's feelings of freedom to give (critical) feedback to colleagues/managers without the need to be afraid of negative consequences for his self-image, status, or career	Precondition
	Openness receiver	The degree to which an employee is willing to listen to and use feedback in order to improve himself	Stimulation
Feedback acceptance	Psychological safety receiver	Receiver's feelings of freedom to give (critical) feedback to colleagues/managers without the need to be afraid of negative consequences for his self-image, status, or career	Precondition
Consideration to use feedback	Openness receiver	The degree to which an employee is willing to listen to and use feedback in order to improve himself	Stimulation
	Clear goals*	Measurable goals, agreed by supervisor and employee, about the development and 'successful' executing his work, so the provider can use these goals in the providence of normative feedback	Precondition

Note. Variables ending with * are only relevant for performance feedback

Feedback culture

Organisation long-term: *formalisation*, centralisation*, power distance, progressiveness*
Organisation short-term: *vision communication, emphasize importance, provide support, role models*

Provider
Need for feedback
Feedback-seeking behaviour

Provider
Psychological safety
Openness receiver

Trigger to think about feedback → Consideration to give feedback → Feedback message

Feedback usage ← Consideration to use feedback ← Feedback acceptance

Receiver
Openness receiver

Provider & Receiver
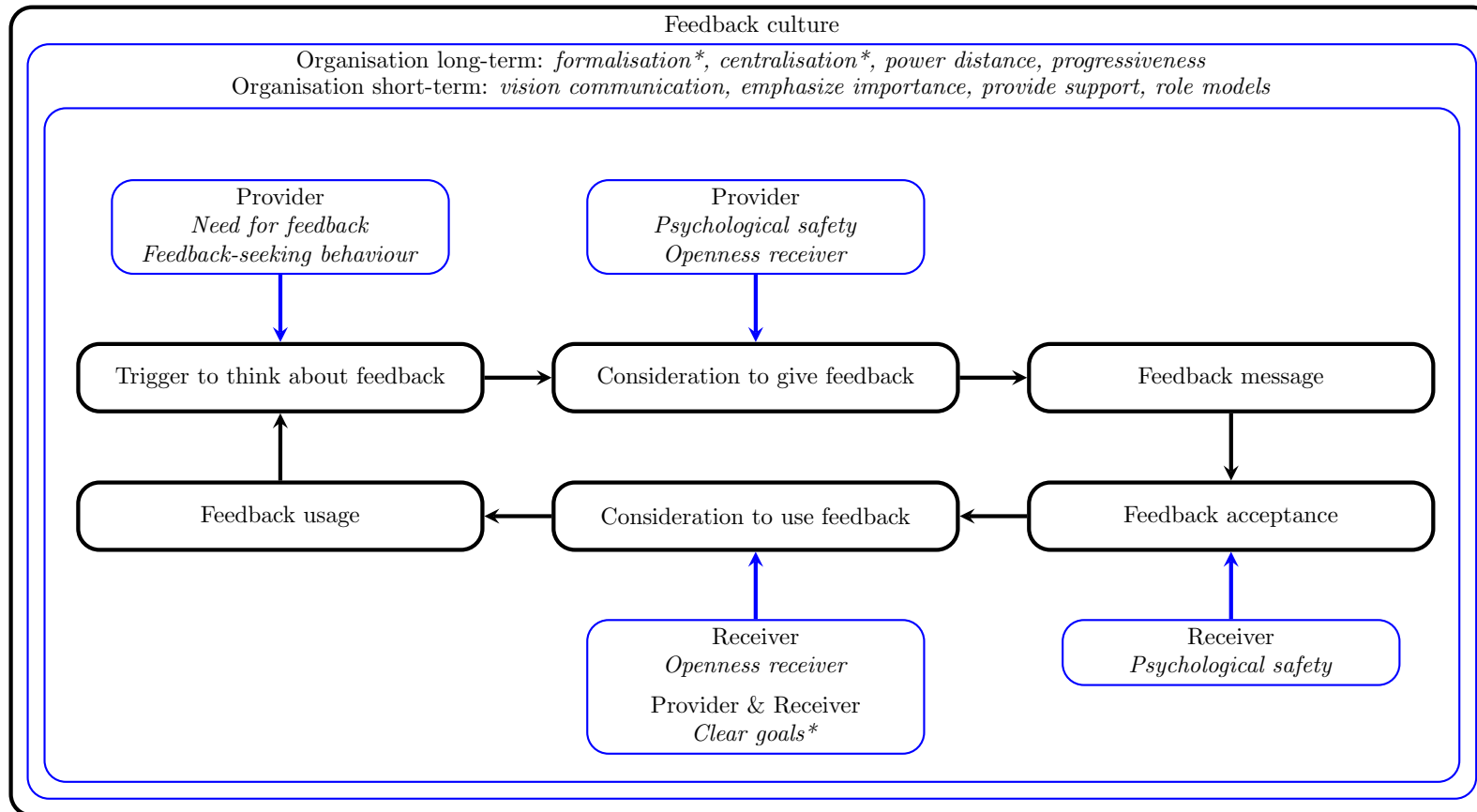*Clear goals**

Receiver
Psychological safety

Figure 1. Conceptual model: variables influencing the feedback culture of an organisation. Variables ending with * are only relevant for performance feedback

Methodology

This research is aimed to overcome the gap from a weak to a strong feedback culture in the organisation. Literature has clarified variables that need to be present in an organisation in order to implement a strong feedback culture. Sequential, this research needs to reveal to which degree these variables are already present in the organisation and on which variables the organisation needs to focus most in order to implement a strong feedback culture.

This research is executed as an empirical qualitative survey research. Qualitative research can provide insights into why the needed variables are existent in the organisation or not. Survey research provides a cross-sectional view of the organisation, enabling to research a larger group while qualitative data is used (Baarda, de Goede, & Teunissen, 2009).

3.1 Research group

Nedap consists of nine different market groups. Two of these market groups will be researched. To select two of these groups a selection was based on which groups are eligible to research. Three groups were excluded because of their small size compared to others and two groups were excluded because of a recent change of the market group leader, which could give noise to the research. Four market groups therefore formed the first selection. All groups were open to participate in the research; therefore the choice of two groups was based on comparability in age and years of service at Nedap.
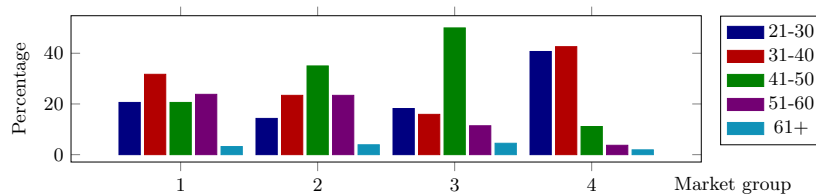
Figure 2. Comparison of age between market groups

As can be seen in Figure 2 and 3, group 1 and group 2 are most similar to each other based on age and years of service of the employees. Therefore, group 1 and 2 will form the research group.
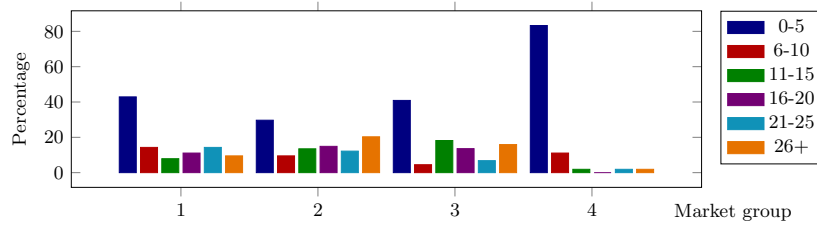
Figure 3. Comparison of years of service between market groups

Of both market groups, three teams will be researched. The choice is based on the comparability of the three teams of both market groups in team function, age of employees and years of service at Nedap. To start, as can be seen in Figure 4 and 5, team 1 of market group 1 and team 1 of market group 2 are similar in age. As can be seen in Figure 6 and Figure 7, the same teams are also similar in years of service of the employees. Therefore, these two teams will be researched. Second, it can be seen that team 5 of market group 1 and team 7 of market group 2 have a similar pattern in age of the employees. Both teams have relatively more elder employees compared to the number of younger employees. Since these teams are also comparable in their function, both will be researched. Third and final, it can be seen that team 7 of market group 1 and team 6 of market group 2 are comparable in age and years of service. They are also comparable in their team function. Therefore, these teams will be researched as well.
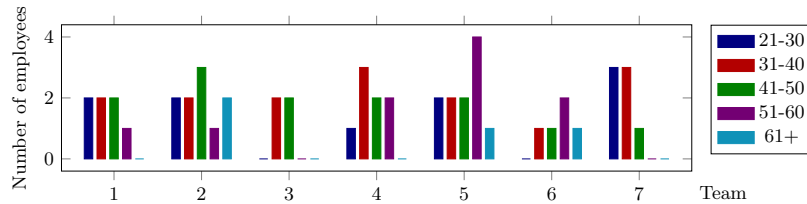
Figure 4. Age of employees of teams market group 1
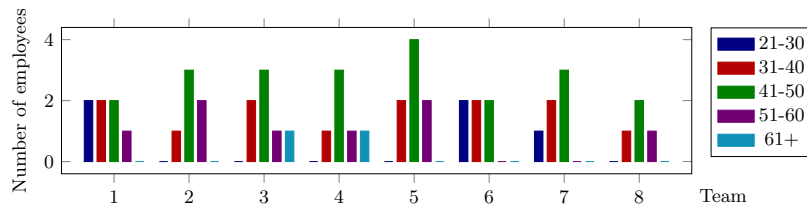
Figure 5. Age of employees of teams market group 2

Data triangulation increases the chance of getting a complete view of the status quo of the organisation (Baarda et al., 2009). Therefore, employees of different hierarchical layers will be researched. Of both market groups the market group leader participates in the research ($n = 2$). Market group leaders are in a different hierarchical position than other employees and therefore the content of their job is different. It is therefore possible that market group leaders have a different view and experience than other employees.

Figure 6. Years of service of employees of teams market group 1

Figure 7. Years of service of employees of teams market group 2

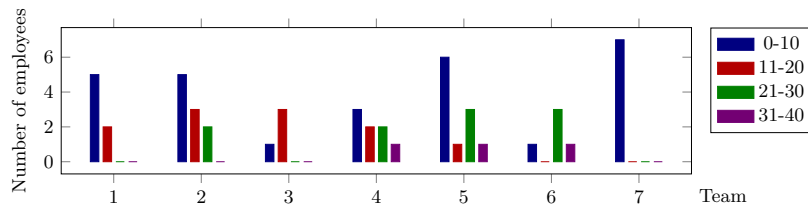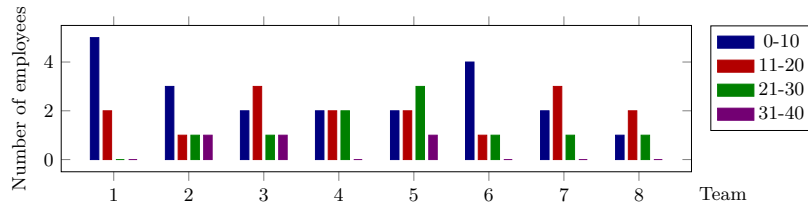Within both market groups three teams will be researched. Every team has a team captain. The team captain does not function in a different hierarchical layer than the other team members, but the team captain is appointed to give a direction to the team and to make final decisions. Therefore the team captain may also have different views and experiences than other employees, which is why of every team the team captain participates in the research ($n = 6$). Finally, of every team two other employees next to the team captain will be researched since they also might have different views and experiences ($n = 12$). Due to a limited time for the research not every team member can participate in the research. However, since the team members are chosen such that for every team a younger, an average in age and an older employee participate in the research, these team members are representative for the whole team. Representativeness is more important than large numbers of respondents (Baarda et al., 2009). Therefore it is not considered a problem to use only part of the teams in the research.

To summarise, the research group consists of two market group leaders, six team captains and twelve other employees within the six teams ($n = 20$). The average age of the whole respondent group is 39. The median of 37 is slightly lower. The average tenure of the respondent group is 8. The median however is 5, indicating that some respondents have been working at Nedap relatively long compared to the other respondents.

3.2 Data collection

The data collection consists of two parts. First, observations will be done to determine the reactions of employees to the announcement of implementing a strong feedback culture in the organisation. Second, interviews will be done to identify to what extent the variables based on literature are present in the market groups and why, and what can be done to stimulate them. The observations and interviews are based on the variables in literature. In order to be able to determine whether or not the variables are present, the variables have been operationalized. Since Nedap wants to integrate positive and negative feedback on hard and soft skills on a daily and performance basis, three variables that stem from the feedback approaches in section 2.1 were added to the operationalization:

1. Message: feedback sign

2. Message: feedback formality

3. Message: feedback subject

Researching these added variables helps to determine to what extent these types of feedback are already given according to the respondents, why, and what employees and managers of Nedap think that needs to happen in order to start giving feedback about both subjects. Finally, the variable "openness of the other" has been added to the operationalization. Openness occurs twice in the conceptual model. The first time it influences the provider in his decision to give feedback. The second time it influences the receiver in his decision to use feedback. These occurrences count for different points of views (the view of the provider towards the receiver and the view of the receiver himself). Since the first view is about the way the provider perceives the openness of the receiver, the variable openness of the other is introduced.

In total there are seventeen variables in the operationalization. Each variable has been defined and based on these definitions and explanations in literature, dimensions have been assigned to every variable. Finally, characteristics of every dimension were defined in order to have indicators for the variables in the data analysis. For example, power distance is defined as the distance in power between the feedback provider and the feedback receiver. The power distance can be formal and informal, which are two dimensions. Formal power distance is based on hierarchy, which is why employees, line managers and top management are its indicators. The full operationalization can be found in Appendix A.

3.2.1   Observations

Once a year the CEO of Nedap gives a presentation to each market group about the state of affairs of the organisation. This year, the announcement that a strong feedback culture will be implemented in the organisation is included. The presentations for both market groups are observed. The observations are focused on both the message of the CEO and on the reactions of the employees on that message. The goal of the observations is to get a first impression of the current situation of both market groups and to observe the first reactions of the employees on the subject.

An observation form was made based on the variables that resulted from the theoretical framework. All variables are listed and comments that are made and behaviour that is shown will be quoted in the cell of the matching variable.

3.2.2   Interviews

Based on the research variables the interview questions were conducted. Since no interview protocol yet existed for the variables a new interview protocol has been designed. First, for every dimension of every variable the direct question was stated that needs to be answered. However, in order to prevent respondents from giving social desirable answers, second the direct questions were rewritten to indirect questions. Third, it was determined which questions could simultaneously cover multiple variables. These questions have been merged in order to have less questions, giving the opportunity to go more in-depth during the interview. Finally, the questions have been rewritten into open questions in order to eliminate leading questions. Every employee will be asked sixteen questions. The interview questions can be found in Appendix B.

In order to determine whether the interview questions lead to the type of answers as intended, an informal pilot is done with a team member who will not participate in the research. Since the employee is a team member of one of the selected teams for the research, the pilot gave a

good impression of how other employees might respond as well. Based on the pilot it has been decided not to change the interview questions.

3.3 Data analysis

The data of both instruments are qualitative and therefore will be analysed through qualitative protocols.

3.3.1 Observations

The observation forms will be filled in during the observations. All variables are listed in the observation form and comments that are made and behaviour that is shown will be quoted in the cell of the matching variable. A first impression will be based on which variables are discussed during the observations. The file of the given presentation functions as a document that can be used for controllability of the research data.

Based on the data of both observations, a comparison can be made of the responses of both market groups. The comparison will give a first impression of the extent to which the market groups differ from each other in their acceptance of implementing a feedback culture.

3.3.2 Interviews

The interviews have been recorded. Therefore the data that result from the interviews are controllable. The recordings have been converted into text files that contain the whole interviews literally. These text files were coded by assigning indicators that resulted from the operationalization to text fragments of the interviews. A distinction is made between positive, negative, and neutral variables. When a variable is mentioned by a respondent as present in the organisation, the variable will be assigned to the text fragment with a positive mark. When a variable is mentioned by a respondent as not present in the organisation, the variable will be assigned to the text fragment with a negative mark. When a variable is mentioned by a respondent without arguing the extent to which it is present in the organisation, the variable will be assigned to the text fragment with a plus-minus mark. As a result it can be determined to what extent the literature variables are present according to the respondents and what needs to be done in order to implement a feedback culture. The data analysis will be performed by the use of ATLAS.ti.

To assure a sufficiently high reliability, the inter-rater reliability was determined. Due to limited available time the reliability has been determined based on the coding on one interview. The researcher and another evaluator separately coded the first interview text file, after which the reliability was calculated. For the determination of the reliability the formula of Miles and Huberman (1994) was used:

$$\text{reliability} = \frac{\text{number of agreements}}{\text{total number of agreements} + \text{disagreements}}$$

With a percentage higher than 80 the inter-rater reliability is considered as sufficiently high. After coding the first interview, there were 49 coded quotes of which 40 were agreements. The reliability therefore was: $40/(40 + 9) = 81.6\%$. Since $81.6 > 80$, the coding is concluded to be reliable. After this confirmation the researcher solely coded the data of the remaining interviews.

After coding the interviews, by use of ATLAS.ti the frequency of occurrence of every variable will be determined. These frequencies show to what extent positive, negative, or neutral variables have been mentioned by respondents. Additionally, the co-occurrence of the variables will be determined, to gain insights into which variables are frequently mentioned simultaneously.

CHAPTER 4

Results

The observations and interviews have led to a set of results. First the results of the observations will be discussed, followed by the results of the interviews. Quotations are being used in this chapter. The original Dutch statements and the translations that have been used in this research are given in Appendix C.

4.1 Observations

This section describes the results of the observations, concluding with a comparison of both groups.

4.1.1 Market group 1

In the observation of the first market group, two variables came across during the presentation. First the progressiveness of the organisation was addressed, by the explanation of the implementation of People Excellence in order to bring out the best in each other and in every employee. The CEO explains: (translated) *"I want to explain this to you and to encourage you to use it (...) everyone needs to further develop their capacities"*.

Second, the vision of Nedap behind the People Excellence Programme was explained by emphasizing the need of feedback: (translated) *"The effects of a financial relapse in performance will haunt you for years. Thats why it is indispensable to take care of this problem, which we will do by use of the People Excellence Programme (...) We need to keep developing ourselves and for that feedback is necessary. When no-one gives you feedback you will never change"*.

The part of the presentation where the People Excellence Programme was explained was mainly focused on the explanation of the necessity of the programme. When the CEO states that currently little feedback is given and conversations with employees revealed the need for feedback among employees, young employees in the audience nod in agreement. Older employees however do not respond.

4.1.2 Market group 2

In the observation of the second market group, the same two variables come across during the presentation. First the vision of Nedap behind the People Excellence Programme is expressed

by explaining the necessity to respond to the financial relapse in performance. As part of People Excellence it is explained that everyone in the organisation needs to focus on continuous improvement of themselves, which can only be done by giving feedback and receive feedback in a right way.

Second, the employees are stimulated to go along with the changes that are in line with the People Excellence Programme. It is explained that different working methods are not automatically worse, instead change in working methods can be rewarding. Therefore the variable progressiveness arises during the presentation as well.

Congruent with the presentation of market group 1, the part where People Excellence is explained is mainly focused on the necessity of the programme. Employees in the audience however do not explicitly respond, although one question has been asked: (translated) *"But feedback can be positive as well, right?"*, after which the CEO responds approvingly.

4.1.3 Comparison market groups

The presentations for both market groups are the same. There is not much difference in response between the employees of both market groups, although older employees seem to look less comfortable during the explanation of introducing feedback to the work floor. That is why during the analysis of interview data comparisons will also be made based on age and years of service.

4.2 Interviews

This section will describe the results of the interviews. To start, codes added to the code list during the data analysis are explained. Then, the table with the summarized results of the interviews will be given. Thereafter the results will be discussed. First the general results will be given. Second, the market groups will be compared to each other. Third, some final points of attention will be given.

The interviews have been analysed with the use of the codes as predetermined in the methodology section. However, during the analysis new codes were added that were found to be useful as well:

1. Difficulties. This code was used to code potential difficulties that according to the respondent may arise during the implementation of the feedback culture.

2. Ideas for implementation approach. This code was used to code ideas of the respondent that may contribute to the implementation of the feedback culture.

3. Feedback importance. This code was used to code phrases where the respondent expressed the importance of feedback. The results can be used to identify whether differences exists in the perceived importance of feedback by respondents.

4. Timing. This code was used to code phrases where the respondent expressed the importance of the timing when giving feedback. Timing is also a variable according to literature that influences the quality of feedback (e.g., Hoffman et al., 2005; Shute, 2008).

5. Feedback-giving skills. This code was used to code phrases where the respondent expressed the importance of the feedback-giving skills when giving feedback. Feedback-giving skills also form a variable according to literature that influences the quality of feedback (e.g., Harms & Roebuck, 2010; Norris-Watts & Levy, 2003).

6. Openness>pleasant. This code was added as an indicator for openness for feedback. This code was used to code phrases where the respondent expressed his appreciation for receiving or giving feedback.

7. Role models>importance. This code was used to code phrases where the respondent expressed the importance of role models. With defining the results of the analysis, the code was used as an indicator for neutral statements about role models.

8. Psychological safety>uncomfortable feedback seeking. This code was added as an indicator for psychological safety. This code was used to code phrases where the respondent expressed being uncomfortable in seeking feedback.

To provide an overview of the results, the results have been summarised in a table. Aside from the final results for both market groups together, a value has been assigned to the variables for each market group, market group leader, team, team captain, and employees other than the team captain. In order to be able to assign the values, first, a matrix was made with the variables in the left column, the respondents in the upper row, and the frequencies were added of how often each variable occurred in the interview. These frequencies were separated for positive, negative, and neutral statements. It must be noted that positive statements confirm the presence of the variable, negative statements confirm the absence of the variable, and neutral statements do not confirm either absence or presence but only are about the variable. Second, the subtotals were calculated, representing the total of how often each positive, negative and neutral variable occurred in the interview, after which their percentages were calculated from the total amount of frequencies the variable occurred. Fourth, the value (positive $(+)$, negative $(-)$, or neutral $(\pm)$) was assigned to the variable, based on which value had the highest percentage. Thus, the mode was used to assign a value to each variable in order to be able to show which value was most frequent for each variable. Again it must be noted that positive values indicate the presence of variables, negative values indicate the absence of variables and neutral variables are moderately present. Additionally, since the percentages within a variable are sometimes close to each other, the weighted average for each variable was calculated. Negative values got one point, neutral values got two points and positive values got three points. As a consequence, the weighted average shows how positive or negative the group is as a whole. The final table is given in Appendix D. The summarised results of the data analysis are presented in Table 6. The same steps have been made to compare variables in age and years of service. The results of this analysis are represented in Table 7.

Table 6
Summarized results of the interviews based on the market groups

Variable	MGL	TC	E	Tot.	TC	E	Tot.	TC	E	Tot.	Final	WA	MGL	TC	E	Tot.	TC	E	Tot.	TC	E	Tot.	Final	WA	Final	WA
		Team 1			Team 2			Team 3						Team 1			Team 2			Team 3						
Employee level																										
Clear need	?	?	±	±	±	+	±	?	?	?	±	2.20	±	±	?	±	±	+	+	?	±	±	±	2.30	±	2.27
Feedback-seeking behaviour	±	−	−	−	+	+	+	+	+	+	+	2.28	−	+	+	+	±	±	±	+	−	±	+	2.20	+	2.23
Psychological safety	±	−	−	−	±	+	+	?	±	±	−	1.79	−	?	±	±	?	−	−	−	−	−	−	1.42	−	1,60
Openness	?	±	+	+	+	+	+	+	+	+	+	2.38	?	?	+	+	+	+	+	+	+	+	+	2.56	+	2.48
Openness of the other	±	±	±	±	±	±	±	±	−	±	±	1.93	?	−	?	−	−	±	±	−	±	−	−	1.60	±	1.79
Clear goals	−	±	−	−	±	+	+	−	+	+	−	1.82	?	−	−	−	−	−	−	?	?	?	−	1.00	−	1.61
Organisational level long-term																										
Centralisation	−	−	−	−	−	−	−	−	−	−	−	1.25	−	−	−	−	−	−	−	−	−	−	−	1.05	−	1.17
Formalisation	−	−	−	−	±	±	±	−	+	±	−	1.81	+	−	±	±	+	+	+	−	+	+	+	2.36	+	2.07
Power distance formal	±	±	+	+	+	+	+	±	+	±	+	2.53	+	+	+	+	+	+	+	±	±	±	+	2.61	+	2.57
Power distance informal	±	+	+	+	?	?	?	?	±	±	+	2.33	?	±	+	+	?	?	?	+	±	+	+	2.75	+	2.57
Progressiveness	+	+	+	+	±	+	±	+	+	+	+	2.55	+	+	+	+	+	+	+	+	+	+	+	2.66	+	2.61
Organisational level short-term																										
Vision communication	+	?	+	+	?	?	?	+	+	+	+	3.00	?	+	+	+	+	+	+	+	+	+	+	3.00	+	3.00
Importance emphasizing	+	+	?	+	+	−	±	−	−	−	±	2.00	?	−	±	−	?	?	?	−	−	−	−	1.40	−	1.73
Provided support	?	−	±	−	−	−	−	−	−	−	−	1.44	−	−	−	−	+	±	+	+	−	±	−	1.90	−	1.62
Role models	±	+	−	±	+	−	−	±	−	±	−	1.70	?	?	+	+	?	+	+	?	?	?	+	2.40	−	1.86
Performance feedback	?	±	+	+	?	−	−	+	+	+	+	2.40	±	−	±	−	−	−	−	±	−	−	−	1.70	±	1.92

Note. MGL = market group leader; TC = team captain; E = other employees; WA = weighted average when assigned − = 1, ± = 2, + = 3.
? =variable is not mentioned during interview; − =variable is not present; ± =variable is moderately present; + =variable is present.

Table 7

Summarized results of the interviews based on gender, age and years of service

Variable	Gender		Age				Years of service				
	Male	Female	≤ 30	31-40	41-50	51-60	≤ 5	6-10	11-15	16-20	26-30
Individual level											
Clear need	±	±	+	±	±	+	+	±	±	±	+
Feedback-seeking behaviour	+	+	+	−	±	+	+	+	+	−	±
Psychological safety	−	+	−	±	−	?	−	±	−	−	−
Openness	+	+	+	+	+	±	+	+	+	+	±
Openness of the other	±	±	±	±	−	−	±	±	−	−	?
Clear goals	−	−	−	−	−	−	−	−	−	−	?
Organisational level long-term											
Centralisation	−	−	−	−	−	−	−	−	−	−	−
Formalisation	+	+	+	±	±	−	+	+	±	−	±
Power distance formal	+	+	+	+	+	+	+	+	±	+	+
Power distance informal	+	+	+	+	+	±	+	±	±	+	?
Progressiveness	+	±	+	+	+	+	+	+	+	+	+
Organisational level short-term											
Vision communication	+	+	+	+	+	+	+	+	+	+	?
Importance emphasizing	−	+	−	+	±	−	−	+	−	−	−
Provided support	−	−	−	−	−	−	−	−	−	+	−
Role models	±	±	±	±	−	−	±	−	?	?	−
Performance feedback	±	+	+	−	±	−	+	−	−	±	±

Note. ? =variable is not mentioned during interview; − =variable is not present; ± =variable is moderately present; + =variable is present.

4.2.1   General results

In this section the final results of all respondents together will be discussed, following the levels as discussed in the theoretical framework. For every level the negative, moderate, and positive variables will be discussed as derived from Table 6 and Table 7. Additionally, differences in age, years of service and gender will be discussed. Differences between market groups will be discussed in the next section.

Employee level

On the employee level, five variables influence the feedback process: (1) clear need, (2) feedback-seeking behaviour, (3) psychological safety, (4) openness, and (5) clear goals. Two variables on this level are negative. To start, the variable psychological safety is negative. Several statements were made like: (translated) *"Difficult. It is very difficult because basically you need to tell someone what you think he does not do right, that is always an opinion. (...) Or when it is right in your opinion and you say keep up the good work. That is feedback to me, I find it difficult"*. But although the variable is negative as a final outcome for both market groups, differences occur during the analysis of the data. For example, in the interviews with male employees psychological safety was stated more frequently to be negative, while in the interviews with female employees it was stated more frequently positive. As a result, psychological safety is negative for men while it is positive for women. Small differences also arise when analysing psychological safety in the comparison in age and years of service. Although the difference is small, it can be derived from Table 7 that for age groups ≤30 and 41–50 psychological safety is negative, except for age group 31–40 where it is moderate. When analysing the data based on years of service it can be seen that for every group the variable is negative, except for the group 6–10 where psychological safety is moderate. Thus, although psychological safety is negative as a final outcome, small differences can be noticed when analysing gender, age, and years of service. Psychological safety as a negative variable however suggests that respondents feel to some extent uncomfortable to provide and receive feedback.

The second negative variable is clear goals. As appears from Table 6 some differences among respondent groups arise. However, when the data is discussed based on age and years of service, all groups receive the value negative. One respondent stated: (translated) *"I only set goals for work and not so much personal goals. We just say we need to be there and there and what needs to happen to get there, but personal goals not so much"*. Other respondents argue they set goals for themselves. These goals contain ideas of what they want to accomplish, but are not discussed with anyone else. Several times the argument was given that employees do not know where they will be in one or more years in terms of their career. Respondents explained that in that case it is also difficult to set goals. The variable clear goals is thus negative, indicating that employees in the organisation do not determine clear goals.

On the employee level also two variables are moderate, to start with clear need. This variable is moderately present in both market groups. As can be seen in Table 6 only little variance occurs for different respondent groups. Mainly it is stated that feedback should be given when the situation calls for it. For example, one respondent argued: (translated) *"You should not provide it just to provide it, it needs to go somewhere and it is not an end in itself"*. Clear need is thus a neutral variable, indicating that employees mainly want to give feedback when there really is a clear need. Otherwise they will not be inclined to provide feedback.

The second moderate variable is openness of the other, which is moderate when the data of both market groups is combined. Several statements have been made about the importance of openness of the receiver when one provides him with feedback. For example, one respondent argued: (translated): *"With people where I need to break through some resistance and where*

I notice they do not accept it or find it difficult, I automatically find it difficult as well. As soon as there is a relationship of trust like I am okay you are okay we give feedback to each other, then it is very easy". Table 7 shows that in the two younger age groups the variable is moderately present, while in the two older age group the variable is not present. The same goes for comparing the variable based on years of service. For the two newer employee groups the variable is moderately present, while in the two older employee groups the variable is not present. Since there are relatively more younger respondents and respondents who are less than eleven years employed in Nedap, the variable is moderate for the overall respondent group. Openness of the other as a moderate variable suggests that employees do not perceive a high openness of the receiver when they provide them with feedback.

Finally, on the employee level two variables are positive. To start, the variable openness is positive. It is notable that for every respondent group in Table 6 the value is positive, and for one respondent it is moderate. The variable openness is therefore very consistent, both within and between the market groups. Statements were made by respondents like: (translated) *"I try to emphasize to invite people to react and to put myself in a vulnerable position to make it easier for them to say things and to let them know I appreciate it when they do it, also in when it is criticism"*. Openness as a positive variable suggests that employees consider themselves to be open to feedback.

The second positive variable is feedback-seeking behaviour, stating that respondents argue that they ask feedback to colleagues. For example: (translated) *"When you have made something you ask others look what I did. And it appears to be very valuable because you get new ideas like you made a new feature, could you use it for this and that as well. And thus you actually get free advice about where you need to go"*. Feedback-seeking behaviour however mainly occurs in the professional content. It occurs very little that feedback is asked about soft skills. As can be seen in Table 7, feedback-seeking behaviour is positive for both men and women. There are some differences when comparing the variable based on age and years of service. Employees younger than 30 and older than 50 argue to seek feedback, while employees in the 31–40 age group answer negative and employees in the 41–50 age group answer neutral to the variable. Employees who are less than 16 years employed in Nedap argue to seek feedback, while the 16–20 group answers negative and the 26–30 group answers neutral to the variable. Overall however the variable has a positive value, indicating that employees consider themselves to ask for feedback.

Organisational level: long-term

On the organisational level, four long-term variables influence the feedback process: (1) centralisation, (2) formalisation, (3) power distance and (4) progressiveness. The negative variable on the long-term organisational level is centralisation. Centralisation is a remarkable variable since it scores negative for all respondent groups in function, gender, age and years of service, as can be seen in Table 6 and Table 7. The weighted average is only 1.16. Overall the respondents stated to have a lot of power to make their own decisions, for example: (translated) *"I feel like I can go my own way, make decisions and choices whether it is about staff or product and market development, I get space to do it myself. (...) So actually I am pretty independent but I involve others to coordinate on it"*. Respondents expressed decentralisation to be an important part of the organisation: (translated) *"In the end it is the idea that everybody in -the market group- can make his own decisions within the responsibilities you have"*. Centralisation as a negative variable thus indicates that the organisation is decentralised.

The other variables on the long-term organisational level are all positive. Formalisation however has a positive value although its weighted average is relatively low, showing that dispersion exists in the statements of the respondents. As shown in Table 7 there is no difference for gender.

Differences exist however for age and years of service. The age groups show that for the older employees the lack of formalisation is mentioned more frequent, where for the younger employees the existence of formalisation is mentioned more frequent. The same goes for years of service. It must be noted however that in the cases of positive statements about formalisation, there is mostly referred to unwritten rules in the organisation. For example, one respondent explained: (translated) *"Yes you know you always need to act with integrity. And procedures are mainly about contracts, when you change anything, although I do know what fits, but when something is completely new you let someone else read it who also has knowledge about it. (…).There are rules and procedures but they are not fixed. It is about the unwritten rules (…)."* Formalisation is thus predominantly positive, indicating that to some extent there are rules the employees need to follow.

The second positive variable is power distance. A distinction has been made between formal and informal power distance and both appear to be present. The values are very consistent for the different respondent groups when the comparison is made based on their function. The variable is not different for gender and only little variance exists for age and years of service. The formal power distance is explained by respondents as the distinction of the director of the organisation, the market group leaders, team captains and the other employees. Informal power distance is explained in different ways by respondents of the different market groups, as will be further explained in section 4.2.2.

The final positive variable is progressiveness, with one of the highest weighed averages. Progressiveness is positive for every respondent group except for team 2 of market group 1. Table 7 shows that only in gender a little difference exists, but for all age and years of service groups the variable is positive. Respondents thus claim that the progressiveness as explained in section 2.4.2 is present. For example, one respondent explained: (translated) *"Where the needs are in the market or where opportunities are is what we want to deal with. I think that makes sense and well you can divide short-term and long-term things, and it is possible these two are in conflict"*. Progressiveness is thus highly positive, indicating that respondents confirm the existance of dimensions excellence, encouragement and adaptability.

Organisational level: short-term

On the organisational level, four short-term variables influence the feedback process: (1) vision communication, (2) importance emphasizing, (3) support providing and (4) role models. Importance emphasizing is one of the negative variables on the short-term organisational level, stating that respondents find that importance emphasizing is not one of the current activities of the organisation. For example, one respondent explained: (translated) *"Actually it faded away. It has been talked about a little afterwards –presentation CEO– like giving each other feedback jokingly, but not anymore, no"*. A lot of variance however exists in the respondents groups, both within and between market groups, and based on gender, age and years of service. To start, female employees state more frequent that importance emphasizing is present, while male employees state more frequent that it is not present. Also, the youngest and oldest age group state more frequent that the variable is not present, while the middle age groups state more frequent that it is somewhat present. In the end however the negative statements outweigh the positive statements and the variable is negative when the value is based on all respondents together. Importance emphasizing as a negative variable suggests that respondents do not perceive existance of informal communication about feedback.

Support providing is also a negative variable, stating that respondents find support providing for feedback absent in the organisation. One respondent for example stated: (translated) *"That support is non-existent whatsoever. In itself in Nedap opportunities always exist but they definitely*

are not handed out". Remarkably there is no difference in respondent groups for gender and age. Only in years of service the group 16–20 is positive. For the rest, support providing is a negative variable, indicating that employees feel lack of support to learn how to give and receive feedback.

The final negative variable on this level is role models, stating that overall respondents emphasize the absence of role models in the organisation. For example, one respondent explained: (translated) *"But no, honestly I must say I do have a lot of colleagues I consider to be capable of it, who do not have fear and have the insight of which I think they indeed would be good at it. But nevertheless it does not happen so much, no"*. Although the variable is negative it is remarkable that the younger age groups make more neutral statements about role models, where older age groups are more negatively oriented. Overall however it can be stated that role models are not present.

One variable is moderately present in the organisation, which is performance feedback. The variable receives the moderate value however overall, while there are a lot of differences within and between market groups as will be discussed in section 4.2.2, and based on age and years of service. It can be seen in Table 7 that the younger employees and the employees with the least years of service at Nedap give more positive statements about performance feedback compared to the other groups. For example, one respondent explained: (translated) *"But you need to schedule very serious meetings yourself and those are about functioning and personality those 3ps so to speak we are not doing that yet"*. Most statement are congruent with this example, namely that performance feedback is possible but you need to request it yourself.

The final positive variable on this level is vision communication, meaning that respondents relatively make positive statements about the presence of vision communication in the context of feedback. One respondent stated: (translated) *"Well now it is quite recent since the presentation of –CEO– it has been talked about more. And I guess people who expect more feedback will now be more active in requesting it. I think after the presentation it has been more discussed, but we do not know what to do with it"*. The presentation of the CEO is thus seen as the formal communication of the vision about feedback to the employees. Vision communication is the only variable with 3.00 as the weighted average, suggesting that all respondents agree on the presence of formal communication about feedback.

Remarkable differences

Aside from the valuation of the variables, three remarkable differences can be noticed from the final values. First, openness is positive while openness of the other is negative, suggesting that the respondents find themselves open to feedback but others less. This result suggests that respondents have a misperception of the reality and they are less open to feedback than they think.

Second, clear goals is negative while performance feedback is moderately present. Literature however has argued that clear goals are a precondition to give constructive performance feedback (Smither et al., 2008; Ilgen et al., 1979; Hewson & Little, 1998), which could be one of the reasons why performance feedback is not a positive variable.

Third and final, as can be seen in Appendix D, results show that 64 per cent of the statements about feedback messages are about negative feedback. As explained in section 2.3.1 however, positive and negative feedback need to be in balance. Only a third of the statements about feedback messages however are about positive feedback. Respondents thus seem to associate feedback more with negative feedback messages than with positive feedback messages.

4.2.2   Differences between market groups

In this section the differences in results of the two market groups will be discussed as derived from Table 6 and Appendix D.

Employee level

On the employee level, four differences occur between the market groups. Psychological safety receives different values when a comparison is made between the respondents in their function. In market group 1, the variable is negative for team 1 while it is positive for team 2 and moderately present for team 3. In the second market groups the values are comparable and more negatively oriented. As a consequence, the weighted average for psychological safety for market group 1 is higher than for market group 2, even though both values are negative.

Second, clear goals is a variable with a relatively big difference between the market groups even though the value is negative for both. In market group 1 four respondent groups give more positive statements about clear goals than negative, which is mainly due to the market group leader and team 1. Team 2 and team 3 are more positive oriented. In market group 2 however all respondent groups give more negative statements, resulting in a weighted average of minimum 1.00.

Openness of the other has a different value in comparison of both market groups. In market group 1 with ten out of eleven respondent groups the emphasis lies on neutral statements about openness of the other, while in market group 2 with six out of eleven respondent groups the emphasis lies on negative statements about openness other.

As mentioned in section 4.2.1, there is a big difference in frequency of positive and negative mentioned feedback messages. This difference however is mainly explained by market group 2. In market group 1 the difference is 58% for negative messages versus 42% for positive messages. In market group 2 however the difference is 69% for negative messages versus 31% for positive messages, where team 2 is an outlier with a difference of 83% versus 17%. Market group 2 thus is more negatively oriented with feedback messages than market group 1.

The variables feedback-seeking behaviour, openness and clear need are comparable for both market groups.

Organisational level: long-term

Formalisation is a variable with much variance in value between the different respondent groups. The most outstanding difference is that market group 1 results in a negative value with weighted average 1.81, where market group 2 results in a positive value with weighted average 2.36. The lower value for market group 1 is mainly due to the market group leader and team 1. Team 2 and team 3 result in a moderate value for formalisation. The higher value for market group 2 is mainly due to the market group leader and team 2 and 3. Team 1 is slightly more negative with a moderate value. It must be noted however that in the cases of positive statements about formalisation, there is mostly referred to unwritten rules in the organisation.

As discussed in section 4.2.1, both market groups have positive values for power distance formal and power distance informal. Market group 2 however seems to have a different type of informal power distance than market group 1. One respondent of market group 1 for example explained informal power distance exists based on arguments: (translated) *"When you talk to <team>, they have a different function. Not above or under me, but because they know more of the subject they will always be leading. While when it is about <specialty> it is reversed and I will take charge. (...) But it is depends on the situation"*. In market group 2 however informal power distance is explained to be present based on years of service: (translated) *"That is something*

that indirectly goes for our organisation, that there are people who have been working here for 25 years well they are certainly differently looked at than people who are 2–3 years in service". Thus even though informal power distance has a positive value in both market groups, the market groups have different types of power distance. Variables centralisation, formal power distance and progressiveness are comparable for both market groups.

Organisational level: short-term

Importance emphasizing is one of the negative variables on the short-term organisational level. A lot of variance however exists in the respondents groups, both within and between the market groups. Between the market groups goes the comparison that market group 1 results in a moderate value for the variable, where market group 2 results in a negative value. The difference between the market groups results in a difference in weighted average of 0.60. Within both market groups team 3 is completely negative and comparable to each other. In teams 1 and 2 the values are diversified.

Variable role models also differs both between and within market groups. To start, market group 1 results in a negative variable where market group 2 results in a positive variable for role models, with a difference of 0.70 in weighted average. It must be noted however that in market group 2 the variable role models was not discussed in several interviews, which may lead to a misinterpretation of data. However, with all respondent groups in market group 2 where the variable did come across, the results lead to a positive value. Within market group 1 a difference can be seen between team captains and other employees. Team captains have made more positive statements about role models than negative, while this is reversed for the employees.

Performance feedback is the final variable with a difference in value between both market groups. Market group 1 has a positive outcome for the variable with weighted average 2.40, where market group 2 has a negative outcome for performance feedback with weighted average 1.70. In market group 1, team 1 and 3 are both positive oriented while team 2 is negatively oriented. In market group 2, all teams are negatively oriented. The differences between the market groups lead to a moderate value for the variable overall. The variables vision communication and support providing are comparable for both market groups.

4.2.3 Points of attention

Aside from the values of the variables some other points of attention should be discussed, about the co-occurrence of some variables, possible difficulties that were mentioned by respondents and ideas for an implementation approach.

Concurrent variables

The co-occurrence tool of ATLAS.ti gave insights into which variables occurred at the same time and their frequencies. Most variables did not co-occur, except for four variables that in total gave four combinations of concurrent variables. To start, the co-occurrence of psychological safety and positive and negative feedback messages is given in Table 8.

Table 8 shows that in total the variable psychological safety occurs fourteen times simultaneously with a positive or negative feedback message. Twelve of these times the co-occurrence is with a negative feedback message. Code *psychological safety > anxiety > uncomfortable giving+* co-occurs seven out of eight times with a negative feedback message, code *psychological safety > anxiety > uncomfortable receiving+* co-occurs three out of three times with a negative feedback message. Respondents thus mainly explained they experience levels of uncomfortableness when giving or receiving negative feedback.

Table 8
Co-occurrence of psychological safety with negative and positive feedback messages

	Message>negative	Message>positive	Total
Psych. safety>anxiety−	1	1	2
Psych. safety>anxiety>uncomfortable	1	0	1
Psych. safety>anxiety>uncomfortable giving+	7	1	8
Psych. safety>anxiety>uncomfortable receiving+	3	0	3
Total	12	2	14

The second set of concurrent variables is psychological safety with feedback about hard and soft skills. These results are given in Table 9.

Table 9
Co-occurrence of psychological safety with hard and soft skill feedback messages

	Psych. safety> anxiety-	Psych. safety>anxiety> uncomfortable giving+	Total
Message>hard skills	0	1	1
Message>hard skills>design/develop	0	1	1
Message>soft skills>communication	0	1	1
Message>soft skills>functioning in teams	1	2	3
Total	1	5	6

Table 9 shows that in total the variable psychological safety occurs six times with feedback about hard and soft skills. Only one time a respondent stated that he does not feel any form of anxiety when providing feedback about ones functioning in teams. Two times the co-occurrence of uncomfortableness in giving feedback with feedback about hard skills is present. Three times the co-occurrence of uncomfortableness in giving feedback with feedback about soft skills is present. Although the total number of co-occurrences is low, a bit over half of the co-occurrences is about feedback on soft skills. Respondents thus mainly explained they experience levels of uncomfortableness when giving or receiving feedback about soft skills.

The third set of concurrent variables is hard and soft skill feedback messages with negative and positive feedback messages. The results are given in Table 10.

Table 10
Co-occurrence of hard and soft skill messages with negative and positive messages

	Message>negative	Message>positive	Total
Message>hard skills	10	7	17
Message>hard skills>professional problems	1	1	2
Message>hard skills>design/develop	11	7	18
Message>hard skills>knowledge application	4	2	6
Subtotal	26	17	43
Message>soft skills	2	0	2
Message>soft skills>communication	12	2	14
Message>soft skills>functioning in teams	13	1	14
Message>soft skills>responsibility	2	0	2
Subtotal	29	3	32
Total	55	20	75

Table 10 shows that in total there are 75 co-occurrences of hard and soft skill messages with positive and negative messages. The total of negative feedback messages is over 2.5 times higher

than the total of positive feedback messages and the total of feedback on hard skills is 1.3 times higher than the total of feedback on soft skills. More feedback thus is given about hard skills with a focus on negative feedback. In soft skills the difference is much higher between negative and positive feedback. Almost 10 times more negative feedback on soft skills is stated to be given than positive feedback. For hard skills the positive and negative feedback are thus more in balance than for soft skills. Respondents thus mainly explained they get both positive and negative feedback about hard skills, but mainly negative feedback and little positive feedback about soft skills.

Fourth and final, feedback-seeking behaviour and feedback message: subject form a set of concurrent variables. The results are given in Table 11.

Table 11

Co-occurrence of hard and soft skill messages with feedback-seeking behaviour

	Feedback-seeking behaviour-	Feedback-seeking behaviour+	Total
Message>hard skills>professional problems	1	2	3
Message>hard skills>design/develop	0	3	3
Message>hard skills>knowledge application	0	1	1
Message>soft skills>communication	0	1	1
Total	1	7	8

Table 11 shows that feedback-seeking behaviour co-occurred mainly with feedback messages about hard skills. Only one time an employee stated that he asks for feedback on his communication skills, compared to seven times where employees stated to ask feedback on hard skills. Respondents thus explained that they mainly seek feedback about hard skills and little feedback about soft skills.

Possible difficulties

During the interviews several comments have been made about ideas respondents have about difficulties that may arise when implementing a strong feedback culture. To start, 26 times respondents talked about habituation of employees in the organisation. Employees are claimed to not being used to feedback and that it is not in their nature to ask, give, or receive feedback. For example, one respondent argued: (translated) *"I think in the beginning it can be very emotional. I think when some people hear something from a colleague they are not used to it and do not know how to deal with it"*. Or as another respondent stated: (translated) *"I am convinced it has a lot to do with peoples personalities. And if there is something difficult to change it is peoples personalities. You can send people to a training (...) but in the end you do not change a lot"*. Respondents thus see potential difficulties in changing the habits and personalities of employees.

Second, twelve times respondents talked about their fear for negativity with the implementation of feedback. One respondent explained: (translated) *"Positivism is never urgent. Nothing goes wrong when I do not give you a compliment. But if you do something very disruptive something does go wrong when I do not give you feedback. So feedback is almost always related to negativity when you do not make arrangements."* Respondents thus see difficulties in the possibility of focusing mainly on negative feedback with the implementation of a strong feedback culture.

Third, nine times the time and guidance necessary for the implementation have been mentioned as a difficulty. For example, one respondent said: (translated) *"(...) feedback is not something you benefit from right away, it is a long-term process. (...) But I think the organisation should realize it takes time and guidance (...). And people who need to start doing it need*

to have the opportunity to receive guidance." Respondents thus express concerns about the time and guidance that needs to be available to implement a feedback culture.

Fourth, five times the communication structure is mentioned as a potential difficulty. One respondent explained: (translated) *"You do notice it is more difficult to give feedback upwards than downwards. I dont́ know why, I guess in a way it will or can be used against you. But the whole department is on one line, you wont go to <CEO> very fast to give him feedback."* Respondents thus explain concerns about giving feedback to someone higher in the hierarchy.

Fifth and final, four times the sequel after feedback is mentioned as a possible difficulty. For example, one respondent explained: (translated) *"Often the process is missing to do something with it. When you ask <market group leader>do you want to help me or give guidance he wants to but there is no time or space. (...) So it is good someone says it and to make an effort, but when you cannot use it in the end it is useless"*. Respondents thus have concerns about whether they will be able to use the feedback after they received it from a colleague.

Ideas for implementation approaches

During the interviews respondents have made comments about their ideas on what might help to implement a strong feedback culture. To start, 24 times respondents talked about adding structure to the feedback process, for both performance and daily feedback. For structure in daily feedback, as an example twelve times software development method scrum is mentioned. Respondents talk about the benefits of integrating feedback in the daily routine by integrating feedback in the stand-up held once a day. For example: (translated) *"But mostly in the end, everyday there is a stand-up where everybody explains what is happening at the moment"*. The retrospective as part of the scrum-method is talked about as well: (translated) *"Through the ret- rospectives I saw feedback can be organized and when it is organized other things arise compared to when you just let it be (...)."* Respondents also argued that standardizing performance feed- back would be useful, since now employees have to request it themselves which is why according to them it does not take place much. Respondents thus think adding structure to feedback is a long-term solution for the implementation of a strong feedback culture.

Second, 16 times the advice is given to define a clear vision for the market group as a whole and for the team. For example, one respondent explained: (translated) *"I get motivated when there is a strategy, a mission and a vision so I know for long-term where weŕe going and do you have the resources to accomplish that."* Another respondent explained feedback can be integrated in the vision of the team: *"with the team to decide what we are going to do this year, what will be our focus. And when you integrate there we want to provide more feedback to each other because this and that and to repeat that"*. Respondents thus gave the suggestion to define a vision for both the market group and the team to motivate employees.

Third, fifteen times team spirit is mentioned as a possible contributing factor in the imple- mentation of a strong feedback culture. One respondent argued: (translated) *"When they keep seeing it is about more feedback and more cooperation, discuss with each other and better know our (common) goals, you get a team spirit and it will become a shared burden instead of your own. You will get a team where you jointly want to become better"*. Respondents suggest that focusing on team spirit will contribute to a feeling of safety and openness, which are aimed to successfully implement a strong feedback culture.

Fourth, 19 times guidance and training are mentioned as an idea to implement a strong feedback culture. For example, one respondent explained: (translated) *"Maybe you can train how I can give feedback without feeling miserable or without finding myself a bootlicker because I am always very positive"*. Or as another respondent argued: (translated) *"You will need to get people involved so it really happens. Then you in some way need to give something to hold on*

to, I can use that to put it into practice". Respondents thus argue that guidance and training to learn how to give and receive feedback are contributing factors to a strong feedback culture.

Fifth, ten times positivism is mentioned as a contributing factor. One respondent explained: (translated) *"When you hear what is going right you can get motivated. When you only hear what is going wrong you might get demotivated. You need to avoid that negativity"*. Respondents thus explain that a focus on positivism keeps employees motivated and helps to implement a strong feedback culture.

Sixth and final, nine times the function of managers as role models and clarity about the function of team captains are argued as an important factor. For example, one respondent stated: (translated) *"I think when <CEO> would not be open to feedback or responds in a way by dismissing or give an indistinct answer, I adopt that style"*. Another respondent explained in order to give performance feedback as a team captain, clarity is needed in order to let it be accepted by the other team members: (translated) *"I think it would be a lot more clear when the role of the team captain is clear (...) when you add responsibilities that are or are not there it should be clear to everyone"*. Respondents thus argue that employees in managerial positions clearly need to be open to feedback and (in case of performance feedback) the function of every team captain needs to be clear in order to successfully implement a strong feedback culture.

Implementation guidelines

Now the results of the research are discussed, this chapter will provide some guidelines for the organisation it can follow to implement a strong feedback culture. The guidelines are based on the combinations of suggestions based on literature and arguments of the employees. For every level the variables will be discussed, after which an overview is provided of the steps that need to be followed and which are most important.

5.1 Employee level

On the employee level, five variables influence the feedback culture: (1) clear need, (2) feedback-seeking behaviour, (3) psychological safety, (4) openness of the receiver and (5) clear goals. Clear need is a neutral variable. Respondents mainly argued that feedback should only be given when the situation calls for it, few statements however have been made about seizing opportunities to give feedback. Since recognizing a need for feedback is a stimulating variable (e.g., Hoffman et al., 2005) however, it is a variable to pay attention to. Literature suggests that training could help employees to recognize situations that ask for feedback (Hoffman et al., 2005). This would imply that all employees should participate in a training. Training all employees is the best case scenario. However, when this is not achievable for the organisation, another solution can be more suitable. Formal and informal communication might contribute here. A formal communication method like a presentation can be used to explain to employees when to give feedback. Informal communication like deliberations between colleagues can also be used for this purpose. Informal communication processes could be stimulated by the use of role modelling, where every role model discusses the need for feedback with colleagues.

Feedback-seeking behaviour is a positive variable for both market groups, although most examples of feedback-seeking in the interviews were about hard skills. Employees do not state they ask colleagues for feedback about soft skills. Such behaviour however can be stimulated through three measures: Vision communication, emphasize importance and role models. Vision, or formal communication can be used to explain top-down the value of asking feedback. The organisation can for example choose to give a presentation to the employees, to send an e-mail, or to post a document on the intranet. An advantage of a presentation is that employees need to pay attention, although time needs to be invested to give a presentation. Sending an e-mail or posting a document on the intranet has the advantage that all employees are reached, although it

is left to the employees themselves whether they read it or not. The recommendation leading from these arguments is to combine the presentation with sending an e-mail or posting on the intranet so the advantages of both measures are obtained. Since formal and informal communication need to be congruent with each other in order to be effective, it is recommended to emphasize importance as well. Emphasizing importance in this situation suggests informal communication where employees in a managerial position discuss the concept and value of seeking feedback in hallways, during breaks or on other moments apart from formal communication settings. It is recommended to agree on these informal communication moments with all role models and to determine the frequency of these moments, in order to live up to the intention to emphasize importance.

From the interviews emerged that some employees feel a lack of psychological safety to ask feedback. Since role models influence psychological safety, they can possibly influence feedback-seeking behaviour as well. When employees consequently see colleagues asking for feedback and there is a lack of negative consequences or occurrence of positive consequences, uncomfortable feelings are likely to decrease. An agreement thus needs to be made with employees on a managerial position and other employees they will explicitly start asking for feedback on all levels, with a focus on soft skills since that behaviour is lacking most on the work floor.

The variable psychological safety is negative for both market groups, while it is a precondition for people to start giving and using feedback (Van der Rijt, Van de Wiel, et al., 2012; Edmondson, 2008). Absence of psychological safety therefore forms an obstruction in the implementation of a feedback culture. Consequently, creating psychological safety would be one of the first steps that need to be made by the organisation. As explained in section 2.4.2, role models can help the organisation to create a safe environment. Employees and managers need to experience that feedback does not have negative consequences per se. Since managers have an exemplary role already, as emerged from the interviews, all people in the organisation in a managerial position should act as a role model. Role modelling means that selected employees and managers work in line with the new communicated vision. For Nedap it means that all people in a managerial position and possibly some other employees throughout the organisation need to be asked to function as a role model. Specifically, they need to agree to start asking, giving and using feedback on a frequent basis on all feedback approaches as discussed in section 2.1: feedback sign (positive/negative), feedback formality (performance/daily), and feedback subject (hard/soft skills). Respondents also have given ideas to focus on enhancing the team spirit in order to increase a feeling of trust and safety and thereby decreasing barriers to ask, provide and use feedback. Teams themselves thus could try to enhance their team spirit through for example getting together outside of the work setting and doing something fun.

Openness is a positive variable. Hoffman et al. (2005) and respondents argue that being open to feedback as a receiver takes away one barrier for the provider to start providing feedback and that it stimulates the receiver to listen and use the feedback. Although openness is positive for both market groups, the openness of the other is a negative variable. Since there is a discrepancy, openness still is a variable that needs to be worked on. Like clear need and psychological safety, openness can be influenced by the use of role models. By showing in practice that managers and several other employees are open to feedback by asking, giving, listening to and using feedback, other employees are invited to show the same behaviour.

Since next to no employees formulate clear goals while this is a precondition for successful performance feedback, measures need to be taken to stimulate the managers and employees. Although literature does not give clear suggestions for measures, defining clear goals can be slightly formalised. Formalisation of defining clear goals does not necessarily imply filling out forms where prescribed formats are made. Extreme formalisation does not fit with the progressiveness of Nedap where all employees can do their job at their own discretion. Instead, defining

clear goals can be formalised in a way that it becomes part of a routine in performance feedback, where the employee and his supervisor discuss ambitions of the employee and define what he wants to achieve and by when he prefers to have achieved these goals. Here it is recommended to document the goals so in the next meeting for performance feedback the previously stated goals are not forgotten. Documenting the goals does not necessarily imply a detailed description, the length can be determined at the discretion of the employees and supervisors. Formalisation of determining goals needs to be agreed with all supervisors who are going to give performance feedback. A final point for discussion is that several employees argued they do not know where they want to be in for example five years. Therefore goals can be determined for a shorter period of time of which Nedap argues it is useful.

To conclude, several measures can be used on the employee level to implement a strong feedback culture:

1. Use training, formal, and informal communication to stimulate recognising clear need

2. Use role models, formal, and informal communication to stimulate seeking feedback

3. Use role models and team spirit to stimulate psychological safety

4. Use role models to stimulate openness

5. Formalise the use of clear goals for performance feedback

5.2 Organisational level: long-term

On the organisational level, four long-term variables influence the feedback culture: (1) centralisation, (2) formalisation, (3) power distance and (4) progressiveness. Centralisation is the only negative variable on the long-term organisational level. Centralisation is based on the distribution of decision-making authority throughout the organisation (Katsikea et al., 2011). Respondents of Nedap unanimously agreed that Nedap is a decentralised organisation and most respondents expressed appreciation for the amount of decision-making authority they have. Therefore, employees will probably have difficulties with enhancing centralisation in the organisation. Centralisation influences the degree of performance feedback in an organisation. However, this effect is largest for organisations with an average of 50 employees (Katsikea et al., 2011), while Nedap is an organisation with more than 500 employees. Since the effect would be relatively small for Nedap and employees express their appreciation for decentralisation, it is recommended to keep the degree of centralisation unchanged.

Formalisation is negative for market group 1, while it is positive for market group 2. As explained in section 4.2.2 this is probably due to the difference in perspective of rules, policies and procedures. Formalisation can be used for an increasing frequency and standardisation of performance feedback. Respondents also gave suggestions for an enhancement of formalising performance feedback in order to remain the feedback culture over time. Since Nedap is not a highly formalised organisation and it does not want to be a highly formalised organisation, a compromise can be made. A routine can be added to performance feedback where some structure is present but the employees and supervisors can complement this routine at their own discretion. For example, a guideline can be given to have a performance review once a year and the employees can decide whether they want additional meetings.

Employees also gave suggestions for formalising daily feedback, because they otherwise expect a decrease in feedback on the work floor until Nedap has fallen back to a weak feedback culture. Several respondents gave the idea to integrate feedback in their daily routine. Scrum was often used as an example, where in the daily stand-up short feedback comments can be made as

a fixed part of the stand-up. Some teams already use the stand-ups to give feedback, but for the teams who do not it is a way to give structure to feedback. Also the idea was given to integrate feedback in the end-of-sprint meetings. These feedback moments could be more extensive, where also more attention can be paid to feedback on soft skills, both positive and negative. Formalisation to some extent is recommended to prevent losing the strong feedback culture over time. Formalising performance feedback needs to be communicated to all employees and managers, while formalising day-to-day feedback by the use of scrum specifically needs to be communicated with all scrum masters of development teams. For other teams, for example commercial teams, it might be more difficult to approach feedback from a scrum perspective. They could however have a daily stand-up as well and decide to have a meeting every few weeks, where they do not use a developmental perspective but a perspective that suits the function of that team. A meeting with the team captains of comparable team functions could be used to exchange ideas and to come up with an approach.

The variable power distance in itself does not need to change in order to implement a feedback culture. In both market groups formal and informal power distance are to some extent present. Most respondents are satisfied with the presence of these forms of power distance as they are currently existent. Consequently, power distance can be used for the implementation process. Since there is a difference between employees, team captains, market group leaders and top management, these hierarchical layers can be used to choose role models. Since the types of informal power distance is different for both market groups it is more difficult to select role models based on this variable. Market group 1 argues that informal power distance exists based on arguments and knowledge, where market group 2 argues that informal power distance exists based on age and years of service. Therefore not one measure to choose role models based on informal power distance fits for the entire organisation.

Progressiveness is a positive variable for both market groups and therefore not an urgent matter. Since it is a stimulating variable however and respondents talked a lot about its importance, Nedap could consider to invest in progressiveness as part of the organisational culture anyway. Respondents have given ideas to focus on enhancing the team spirit in order to increase a feeling of trust and safety and thereby decreasing barriers to ask, provide and use feedback. It was argued that a strong team spirit positively influences the dimension excellence as part of the progressiveness. Respondents mainly gave suggestions about determining a vision of the team where team members express what they want to achieve with the team and what is important in the process towards the achievement of that vision. They also argued that celebrating successes with each other could be a boost for the team spirit and when failures come across it is expressed that it is a burden for the whole team, not just for some individuals of that team. The top management could discuss these options with all market group leaders. The market group leaders can communicate these ideas to the team captains and the other employees. Market group leaders can contribute to the feeling of unity in the market group by following the same approaches for the whole market group. When one team in the market group had a success it can be shared with the whole market group for example.

To conclude, several measures can be used on the long-term organisational level to implement a strong feedback culture:

1. Keep the level of decentralisation unchanged

2. Slightly enhance formalisation for performance and daily feedback

3. Use power distance to define role models

4. Focus on team spirit and the vision of teams and market groups to stimulate progressiveness

5.3 Organisational level: short term

On the organisational level, four short-term variables influence the feedback culture: (1) vision communication, (2) importance emphasizing, (3) support providing and (4) role models. Vision communication is the only variable of which all respondents agree the presence. In every interview the presentation of the CEO was mentioned as the formal communication tool where the vision of a feedback culture was communicated. On short-term notice therefore no measures are needed for this variable. It is recommended however that this formal communication method recurs at least yearly in order to show that the vision is not forgotten after an amount of time. Formal communication can also be used for the stimulation of other variables, as discussed for clear need and feedback-seeking behaviour.

Importance emphasizing is neutral for market group 1 and negative for market group 2. However, importance emphasizing and vision communication need to be congruent. Consequently, in both market groups work is needed. Respondents have expressed confusion about the announcement of the implementation of a strong feedback culture, after which no further communication has taken place about feedback. It is recommended to use role models to strengthen this variable, among which are at least all employees with a managerial position, including top management. These role models ask, give, and use feedback themselves. When the feedback receiver has used the feedback, the role model needs to acknowledge the usage and improvement and compliment the feedback receiver. As previously discussed, emphasizing importance also suggests informal communication where employees in a managerial position talk about feedback outside the formal communication settings. A meeting with the role models could help to determine the minimum frequency of informal communication. Since literature does not give any suggestions, Nedap can determine this frequency for itself. Agreements contribute to the preservation of importance emphasizing.

Support providing is a negative variable for both market groups. Both literature and the respondents however argue that to some extent support is necessary in learning the skills to ask, give and receive feedback. Like with the variable clear need, training could help the employees. However, training all employees would be ideal. When this is not possible it is recommended to train the role models, so they can role model the right feedback behaviour and changes of success increase. Additionally for all employees a document with guidelines can be made and sent through e-mail or the intranet. These guidelines give the employees something to hold on to when they do not know how to deal with feedback.

The presence of role models is a negative variable, while this is a precondition for the implementation of a strong feedback culture. Even though market group 2 is more positive in the presence of role models, it is such an important variable that whole Nedap needs to work on this variable. To start, all employees on a managerial position need to function as a role model, which means the top management, the market group leaders and the team captains all have to be included in the process. Respondents have argued that when someone higher in the hierarchy does not act as a role model, they will not be inclined to give and be open to feedback as well. Since both literature and respondents make these statements, it is highly important to include all employees in a managerial position in the process as role models. Additionally, other employees can be asked to function as role models as well. For example employees who are generally looked up to by other employees although they are not higher in the hierarchy. All role models need to start giving positive and negative feedback, on hard and on soft skills, and on a daily basis and on performance basis. As previously discussed, it is recommended to train the role models on how to ask, give, and receive feedback. Then the chance is highest that all role models show the most constructive and contributing behaviour to the feedback culture. They will give the right example which triggers the other employees to show the same, constructive feedback behaviour.

It is recommended to agree with the role models on a minimum frequency of role modelling behaviour. Literature does not give suggestions, so Nedap itself needs to find a balance between showing the behaviour not too little and not too much. Respondents argued the importance of this behaviour, although some of them also warned about the frequency, where too much role modelling overshoots the mark.

To conclude, several measures can be used on the short-term organisational level to implement a strong feedback culture:

1. Keep using formal communication to announce the vision behind feedback

2. Use role models to emphasize importance

3. Provide trainings and a document with guidelines as support to employees

4. Use at least employees in a managerial function as role models

5.4   Priority of guidelines

When following the guidelines, it is recommended to first focus on the preconditions that are currently missing. Then the focus can be shifted towards the other negative variables. After the negative variables have been transformed into positive variables, the neutral variables can be dealt with. Finally, the organisation can focus on the positive variables to enhance their strength over time. As a result, the following order is recommended to use the guidelines when looking at the variables separately:

1. Define role models through (in)formal power distance

2. Enhance psychological safety by role models and team spirit

3. Stimulate performance feedback and the use of clear goals through formalisation

4. Emphasize importance by role models

5. Provide support through trainings and guidelines for feedback

6. Stimulate the recognition of clear need by role models, formal and informal communication

7. Stimulate openness by role models

8. Increase feedback-seeking behaviour by role models, formal and informal communication

9. Keep stimulating progressiveness through enhancing team spirit and sharing visions

10. Repeat vision communication at least annually

6

Conclusions

The goal of this research was to identify how an organisation can evolve itself to an organisation with a strong feedback culture. Five sub questions lead to the answer of the research question. The conclusions of each question will be given in this chapter, closing with the overall research question.

6.1 What defines a strong feedback culture?

As discussed in section 2.1, different feedback approaches emerge from literature: (1) feedback sign, (2) feedback formality, (3) feedback level, (4) feedback subject, and (5) constructiveness. When all these approaches are present and in balance in the organisation, it can be stated that the organisation has a strong feedback culture.

Feedback sign is about the distinction between positive and negative feedback. Positive and negative feedback need to be in balance in order to have a strong feedback culture (e.g., Hattie & Timperley, 2007; Ilgen et al., 1979). Feedback formality is about who the feedback provider is. In a strong feedback culture, all employees and managers give feedback to each other. Not only to colleagues on their own level, but up and downwards on hierarchical layers as well (e.g., Gielen, Peeters, et al., 2010; Van der Rijt et al., 2013). Feedback level is about the distinction between performance and day-to-day feedback. In a strong feedback culture, feedback on all levels is given (Hattie & Timperley, 2007). Feedback subject is about the distinction between hard and soft skills. In organisations it is understandable that mainly feedback on hard skills is given. In an organisation with a strong feedback culture however, also feedback about soft skills is provided. Finally, feedback that is given needs to be constructive, so feedback is oriented towards improvement and making progress. Constructive feedback is more accepted and therefore necessary for a strong feedback culture (e.g., London et al., 1999).

6.2 What variables influence a feedback culture?

Literature has shown thirteen variables on different levels that influence the feedback culture, which also can be measured and influenced by the organisation. A visual representation of these variables is given in Figure 1. The variables are subdivided in three categories: (1) employee level, (2) organisational level: long-term and (3) organisational level: short-term.

Employee level

Five variables influence the employee when implementing a strong feedback culture: (1) clear need, which is about recognising a situation where feedback is valuable, (2) feedback-seeking behaviour, which is about actively asking colleagues for feedback, (3) psychological safety, which is about feeling comfortable to provide and to use feedback, (4) openness of the receiver, which is about the willingness of the receiver to listen to and use feedback, and (5) clear goals, which is about defining goals to which the employee and manager can reflect during performance feedback.

Organisational level: long-term

Four long-term variables are relevant that define the organisation: (1) centralisation, which is about the distribution of authority, (2) formalisation, which is about the presence of rules, policies and procedures, (3) power distance, which is about the difference in power between two individuals, and (4) progressiveness, which is about collective convictions excellence, encouragement and adaptability among employees.

Organisational level: short-term

Four short-term variables are relevant steps that the organisation can take: (1) vision communication, which is the formal communication of the vision behind the change, (2) importance emphasizing, which is the informal communication of the change, (3) support providing, which is the support the organisation provides to learn how to give and receive feedback, and (4) provide role models, which are managers and sometimes other employees who act in line with the vision of the change as an example to colleagues.

Aside from these variables that are easily measurable, feedback quality is an important factor in the success of the implementation of a strong feedback culture. As explained in section 2.3, feedback generally is only effective when a set of guidelines are followed. These guidelines are summarised in Table 1.

6.3   How can the influencing variables be stimulated?

Literature has shown thirteen variables on different levels that influence the feedback culture. The organisation can stimulate the strength of these variables.

Employee level

Clear need can be stimulated through a training where the employees and managers learn to recognise situations where feedback is valuable (Hoffman et al., 2005). When it is not possible to provide all employees with a training, formal and informal communication methods can be used to inform employees and managers about recognising the need for feedback, for example through a document with information that is sent by e-mail or the intranet.

Feedback-seeking behaviour can be stimulated through vision communication and emphasizing importance, so managers continuously keep stressing the importance of asking feedback (e.g., Krasman, 2010; London et al., 1999). From the interviews emerged that role models could also stimulate asking feedback, so colleagues notice the value and get familiar with asking feedback themselves.

Psychological safety can be stimulated through the presence of role models (Edmondson, 2008). These role models actively ask, provide, and use feedback with the result that colleagues notice that feedback does not necessarily has negative consequences.

Openness of the receiver can be stimulated by role models. Role models make the employees and managers getting used to feedback and decrease a possible negative association they have with it.

Clear goals can be stimulated through formalisation, by defining and reflecting on goals a fixed part of performance feedback. Laying goals down in writing facilitates the reflection during follow-up meetings.

Organisational level: long-term

The degrees of centralisation and formalisation are determined by the organisation itself. The top management of the organisation defines how the decision-making authority is distributed throughout the organisation and to what extent rules, policies and procedures employees have to follow are written. The organisation therefore can also decide whether feedback is included in the execution of these variables.

Formal power distance arises from differences in hierarchal layers, which are determined by the top management (Hofstede, 2001). The interviews revealed that informal power distance arises from differences in age, years of service and/or arguments. Managers can influence to what extent these differences affect the work processes.

Progressiveness can be influenced by the focus on team spirit both within the teams and within a whole department of the organisation, as explained by respondents from the interviews. All employees and managers can influence the team spirit through arranging celebration moments for successes and determining and communicating the vision of the department and the team with each other.

Organisational level: short-term

Vision communication is a variable the top management can influence by simply using formal communication methods to proclaim the vision behind feedback to all employees. Examples are a presentation and including the vision in the annual report.

Importance emphasizing can be influenced by all employees in a managerial position. These employees, including top management, use informal communication methods to discuss the concept of feedback and to compliment employees who give constructive feedback, employees who use feedback they receive, and employees who ask feedback to colleagues (Hoogervorst et al., 2004).

Organisations can support their employees in feedback by providing trainings to the role models, so they will show correct and constructive feedback behaviour to their colleagues. Organisations can additionally provide guidelines to all employees through for example a presentation or a document with explanations that is sent through e-mail or the intranet.

Finally, organisations can agree with all employees in a managerial position and some other employees spread throughout the organisation to function as role models (Oxtoby et al., 2002; Kotter, 2012). In this agreement the type of behaviour that will be performed and a minimum frequency are included.

6.4 What is the current situation?

After the observations gave firsts insights into the current situation of both market groups, the interviews have led to a value for each variable and a weighted average. The results are summarised in Table 6. To conclude, six variables are negative (thus absent), including the three preconditions:

1. Psychological safety. Employees feel to some extent uncomfortable to give or receive feedback.

2. Clear goals. Employees do not establish goals in terms of performance feedback.

3. Centralisation. Decision-making authority is spread throughout the organisation.

4. Importance emphasizing. No informal communication about feedback takes place.

5. Support providing. Employees feel lack of support in learning how to give or receive feedback.

6. Role models. No managers or employees show constructive feedback behaviour yet.

Aside from the negative variables, six variables are positive (thus present):

1. Openness of the receiver. Employees consider themselves to be open to feedback.

2. Feedback-seeking behaviour. Several employees already ask for (hard skill) feedback.

3. Formalisation. Unwritten rules, policies and procedures are followed.

4. Power distance. Some differences in power are experienced by the employees.

5. Progressiveness. Excellence, encouragement and adaptability are overall present.

6. Vision communication. Formal communication about feedback has taken place.

Finally, two variables are neutral:

1. Clear need. Employees overall did not express when they are triggered do provide feedback.

2. Openness of the other. Employees argue that the other needs to be open for feedback, but do not express how they experience the current situation.

A visual representation of the current situation is given in Figure 8. Aside from the fact that not all variables are positive, the interviews showed that feedback is not given through all literature approaches (the sign, formality, message, level, and subject of feedback). Currently, given feedback is mainly negative and about hard skills. Performance feedback occurs very little and statements were made that employees in a managerial position give little feedback. To conclude, the current situation is a weak feedback culture.
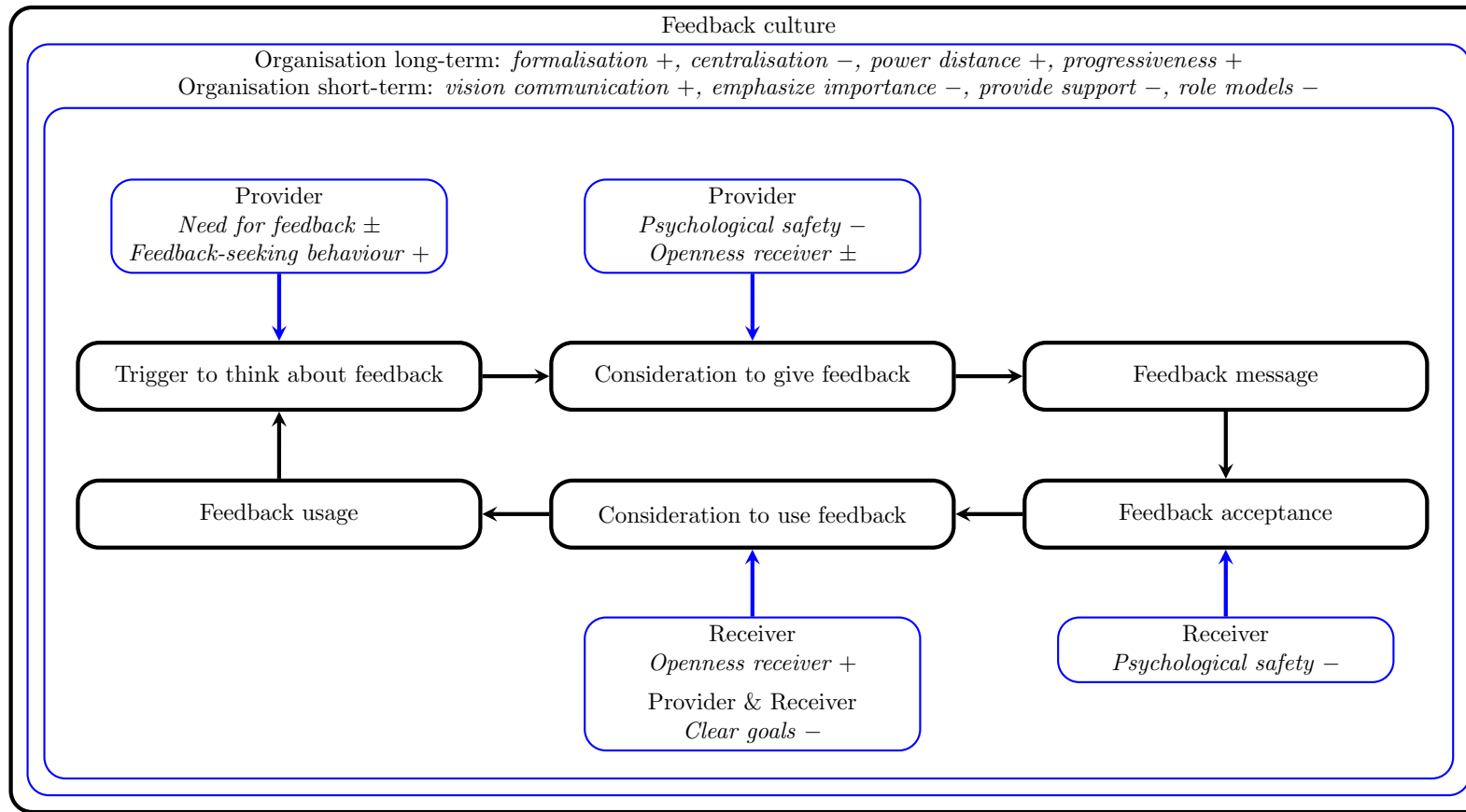
Figure 8. Conceptual model: the current situation. − = variable is absent, ± = variable is neutral, + = variable is present

6.5   How can the desired situation be achieved?

In the current situation, some variables are not yet present in the organisation. Ideally however, in an organisation with a strong feedback culture, all variables that emerge from literature are present. Since the desired situation is a strong feedback culture, all negative variables need work in Nedap, except for centralisation as explained in section 5.2. Especially the preconditions (psychological safety, clear need and role models) need to be highly prioritized in the organisation. Since importance emphasizing and support providing were also variables which importance was stressed by the employees, these may not be forgotten after the focus on the preconditions.

Neutral variables can be further stimulated so each variable will be positive in the future. The focus here will be mainly on learning to recognize a situation with a need for feedback. Openness of the other is influences by the feedback-giving skills of the receiver, but in the end this variable means that all employees and managers need to be open to feedback. When everyone shows openness, all providers will always experience a positive openness of the receiver.

The positive variables have a lower priority, although it is valuable to stimulate these further in order to build a solid base for the maintenance of a strong feedback culture over time.

Aside from the variables of the conceptual model, skills to give and receive feedback need to be taken into account since these skills influence the quality of the feedback message and the attitude of the receiver (e.g., Brinko, 1993). The quality of the feedback message and the attitude of the receiver influence whether or not the feedback receiver will accept the feedback (e.g., Leung et al., 2001).

Discussion

This research leads to three basic subjects that can be brought up for discussion: the methodology of this research, new variables that emerged from the interviews and surprising results.

7.1 Methodology

This research was partly based on literature research. The variables that emerged from literature have been used to build the conceptual model that was used for the qualitative part of the research. It is possible however that the combinations of these variables have a different influence on the feedback process than the variables individually. Therefore it could be argued that the model is not fully reliable. However, all variables have been shown by other researches to have a significant influence on one or multiple phases of the feedback process in organisations. Variables that did appear in literature but have not been shown to have a significant influence have been left out of the research. Therefore, although differences might appear when the variables are combined the variables, since all individual variables have a significant influence it can be stated that the model is suitable for use for this research.

As the first part of the qualitative research, observations have been performed in order to get a first impression of the current situation for both market groups. During the observations however, mainly the formal communication method of the CEO could be observed. Since employees did not give much of a respond during and directly after the presentations, it was difficult to get an impression of the current attitude of the employees. However, although the employees did not respond immediately positive, they did not respond negative either. It is likely that employees would have been more critical when they would feel strongly opposed it. Since such a negative respond did not occur, it can be stated that even though the employees did not react the observations were useful.

As the second part of the qualitative research, interviews have been held with employees. Although employees still admitted some of their fears, it is possible they still have given social desirable responses. For example, since the found contradiction of openness as a positive variable and openness of the other as a negative variable, it is possible that respondents claimed to be more open for feedback than they are in reality. However, it is also possible that respondents were honest during the interviews but that some have a misperception of their own behaviour. The latter is more likely since interview methods have been used to counter social desirable responses. These interview methods consisted of asking open, non-leading interview questions and

using specific communication techniques. These communication techniques were among others mirroring the pose of the interviewee, using silences and confirming statements and conclusions of the respondents. Since multiple methods have been used to minimize social desirable responses it can be assumed that respondents were mostly honest during the interviews.

7.2   New variables

This research has led to some results that are not covered by literature. To start, respondents suggested to add a routine to informal feedback. Adding structure to informal feedback implies that formalisation can be used not only for performance feedback but for daily feedback as well. Literature however has only argued that formalisation can be used for performance feedback. It is not stated that it cannot be used for informal feedback, but there has not been research about this relationship yet. The arguments of respondents would imply however that the conceptual model as used in this research can be changed into formalisation as a tool for multiple forms of feedback.

Respondents gave another angle to use formalisation to introduce daily feedback in the organisation. They argued that concepts of scrum could be used to add structure to the occurrence of feedback. These concepts are a daily stand-up and a retrospective at the end of a certain amount of weeks. The idea of using parts of scrum to introduce feedback has not been discussed by literature. However, since multiple respondents suggested this approach it is still used for the implementation guidelines.

Second, respondents argued that team spirit is an important factor to enhance psychological safety and progressiveness. They suggested that a feeling of team spirit positively influences trust between colleagues which therefore makes it less frightening to give or receive feedback within the team; team spirit would also positively influence the willingness to achieve maximum performance. Team spirit is not a variable that is mentioned by literature. However, since multiple respondents separately came up with this suggestion it is still used for the implementation guidelines. Team spirit could therefore be added as a new variable to the conceptual model.

Finally, respondents argued that guidance after feedback is an important factor. It is suggested that negative feedback requests a change in performance or behaviour. The feedback receiver will have more difficulty using the feedback when he does not get guidance to improve himself or additional feedback where is confirmed to what extent the performance or behaviour has indeed improved. These factors are not included in current literature, but argued by several respondents as an important factor.

7.3   Surprising results

Aside from the new variables, the research led to three surprising results. First, Nedap is an organisation with little formalisation. There are mainly unwritten rules and employees are expected to act with integrity, but no obvious procedures need to be followed. Most respondents however suggested to use formalisation to implement and maintain a strong feedback culture. The suggested levels of formalisation are low, but nevertheless it would imply an increase of formalisation in the organisation. Although literature confirms that formalisation can be a measure to enhance feedback in organisations, it is remarkable that employees of a relatively informal organisation suggest formalisation as an implementation guideline.

The second surprising result is that currently little (soft skill) feedback is given. Although Nedap already considered itself to have a weak feedback culture as explained in section 1.2, it could be expected that employees in an innovative organisation where relatively much informal

communication takes place would also be progressive in terms of feedback. However, currently little feedback is given, but Nedap wants to evolve towards a strong feedback culture. The fact that Nedap wants to take action to implement a strong feedback culture suits the innovative style of the organisation.

The third and final surprising result is that managers as role models turn out to be highly important for the implementation of a strong feedback culture. Not only literature states this issue, respondents came up with this variable as well. Nedap however has a horizontal organisation structure with few hierarchical layers. Results nevertheless shows the importance of the use of these hierarchical layers to accomplish a strong feedback culture.
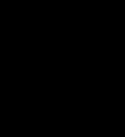
Recommendations

Two sets of recommendations result from the research. First, recommendations for Nedap will be discussed. Second, suggestions for further research will be given.

8.1 Nedap

The answers of the research question lead to specific guidelines for Nedap. The guidelines for every variable have been discussed in chapter 5. This section will discuss the main guidelines with a suggestion of the order in which the guidelines can be introduced, based on their priority. It is recommended to start with the preconditions, after which the focus can be expanded to other variables.

To start, as emerged from section 5.3, role models can be used to enhance five variables: (1) psychological safety, (2) openness, (3) clear need, (4) feedback-seeking behaviour and (5) importance emphasizing. Also, the role models can introduce behaviour on all different approaches that according to literature fulfill a strong feedback culture. To introduce role models in the organisation, they first must be chosen. The hierarchical layers can be used to include all employees in a managerial position. With the role models, agreements must be made on which behaviour they will perform and on what frequency. Finally, it is recommended to provide a training to the role models so they will perform constructive feedback behaviour. Additionally to the training, a set of guidelines can be provided that explain how constructive feedback can be given. A document with these guidelines, as discussed in section 2.3, can be sent through e-mail or the intranet to all employees. The training and the document with guidelines together form the variable support providing.

Second, the organisation can focus on psychological safety. A start has been made with the role models. Additionally, respondents argued the influence of team spirit for their own feeling of safety. Stimulating teams and market groups to define their vision and to share them, and sharing successes and failures with each other has according to the respondents a positive influence on the team spirit and therefore psychological safety. It was also mentioned to be a stimulation for progressiveness.

Third, it is recommended to simultaneously with psychological safety focus on clear goals. Formalisation can be used to make sure that all employees start defining clear goals and reflect on those goals during meetings for performance feedback. Scheduling the meetings can be formalised

as well, by determining one rule for the frequency of performance feedback. Formalisation can also be used to implement other forms of feedback. Motivating teams to start every work day with a meeting of a few minutes, can stimulate the teams to use these moments to include short feedback sessions. In addition a retrospective can be used to plan more thorough feedback sessions, where all types of feedback can be included. Both the stand-up and the retrospective are part of software development method scrum, and is suggested by respondents as a formalisation tool to implement and maintain a strong feedback culture.

With the first three measures the preconditions and some other variables have been covered. Finally the organisation needs to focus on formal and informal communication methods. Vision communication is positive, but it needs to be congruent with importance emphasizing, which is currently negative. It is recommended to use the role models, including top management, to communicate informally with colleagues about feedback. These moments can be used to enhance all variables that influence the feedback process. To ensure that informal communication will take place, it is recommended to make agreements with the role models on the content and frequency of the communication. When a few months have passed, it is recommended to repeat the vision communication to show all employees that feedback is still considered to be an important matter in the organisation.

8.2   Suggestions for further research

Based on the results of this research, new questions arise that can be researched in the future. These questions are based on the generalisation of research results and on quantitative research.

8.2.1   Generalisation of results

The question arises whether the conclusions of this research are generalisable. Nedap is an innovative technology company with few hierarchical layers despite the size of the organisation ($\pm$ 600 employees in the Netherlands). Knowledge about the generalisability of the results would provide insights into whether the results also count for technology companies of smaller sizes, for organisations with the same size but with more hierarchical layers, or even for organisations in a different branch. If the results are to some extent generalisable, the implementation guidelines can form the base for implementation processes for other types of organisations. The same research could be executed in different types of organisations to gain insights into these matters.

Second, the question arises to what extent the results of this research are generalisable for both sexes, different age groups and groups with different tenures. This research did not show large differences in results. Since the research group was relatively small however it is difficult to establish whether these similarities are a coincidence. Further research could provide new insights into the significance of the relationships between feedback processes and age, tenure and sex.

8.2.2   Quantitative research

The question arises whether the new variables that emerged from the interviews have a significant relationship with feedback processes. Three variables were added to the implementation guidelines based on the interviews: (1) formalisation to stimulate daily feedback, (2) team spirit to stimulate psychological safety and progressiveness, and (3) guidance and a second feedback moment after the first feedback moment to help the feedback receiver. Longitudinal research can determine whether the positive influence of these variables can be confirmed.

Additionally, the whole conceptual model could be tested through quantitative research. Although the influence of every variable on the feedback process has been demonstrated in previous research, no research has been done yet about the influence of different variables together on the feedback process. Combining independent variables however may lead to a different influencing strength on a dependent variable, compared to the influencing strength of one independent variable on a dependent variable (Moore & McCabe, 2005). It is thus recommended to perform a quantitative analysis to test the conceptual model, in order to gain more insights into the influence of each variable on the feedback process when they are combined.

In addition to testing the whole conceptual model, the relationships between variables can be researched quantitatively. As discussed in chapter 4, several variables co-occur. These co-occurrences suggest possible relationships. Four combinations of concurrent variables have emerged from this research, which might suggest existing relationships:

1. Psychological safety seems to have a relationship with feedback sign

2. Psychological safety seems to have a relationship with feedback subject

3. Psychological safety seems to have a relationship with feedback-seeking behaviour

4. Feedback sign seems to have a relationship with feedback subject

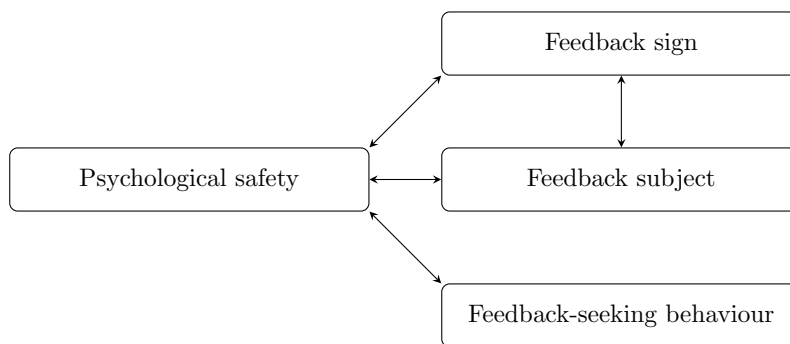If these relationships would be researched quantitatively, the research model would be shaped as Figure 9.

Figure 9. Hypothetical Model

A correlation and regression analysis will provide more insights into the existence of these relationships. A correlation analysis will show whether there is any relationship between the variables. When there are significant relationships, a regression analysis will show which variables are dependent and which variables are independent.

To conclude, a longitudinal study can be performed to define to what extent all measures to enhance the positivism of the variables are successful in practice and to what extent the success differs between measures. A longitudinal study can provide insights into what measures are most important to use and what measures may be less useful. These insights can be used to improve the guidelines to help an organisation to transform itself from an organisation with a weak feedback culture into an organisation with a strong feedback culture.

Bibliography

Arrata, P., Despierre, A., & Kumra, G. (2007). Building an effective change agent team. *McKinsey Quarterly*, *4*, 39–43.

Baarda, D. B., de Goede, M. P. M., & Teunissen, J. (2009). *Basisboek kwalitatief onderzoek: handleiding voor het opzetten en uitvoeren van kwalitatief onderzoek*. Groningen, Nederland: Noordhoff Uitgevers.

Becker, T. E. & Klimoski, R. J. (1989). A field study of the relationship between the organizational feedback environment and performance. *Personnel Psychology*, *42*(2), 343–358. doi:10.1111/j.1744-6570.1989.tb00662.x

Belschak, F. D. & Den Hartog, D. N. (2009). Consequences of positive and negative feedback: the impact on emotions and extra-role behaviors. *Personnel Psychology*, *58*(2), 274–303. doi:10.1111/j.1464-0597.2008.00336.x

Black, P. & Dylan, W. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, *5*(1), 7–74. doi:10.1080/0969595980050102

Brinko, K. T. (1993). The practice of giving feedback to improve teaching: what is effective? *The Journal of Higher Education*, *64*(5), 574–593. Retrieved from http://www.jstor.org.

Brutus, S., Derayeh, M., Fletcher, C., Bailey, C., Velazquez, P., Shi, K., ... Labath, V. (2006). Internationalization of multi-source feedback systems: a six-country exploratory analysis of 360-degree feedback. *The International Journal of Human Resource Management*, *71*(11), 1888–1906. doi:10.1080/09585190601000071

Butler, A. C., Karpicke, J. D., & Roediger, H. L. (2008). Correcting a metacognitive error: feedback increases retention of low-confidence correct responses. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *34*(4), 918–928. doi:10.1037/0278-7393.34.4.918

Coché, E., Dies, R. R., & Gottelman, K. (1991). Process variables mediating change in intensive group therapy training. *International Journal of Group Psychotherapy*, *41*(3), 379–397. Retrieved from http://psycnet.apa.org/.

Davies, D. & Jacobs, A. (1985). Sandwiching complex interpersonal feedback. *Small Group Behavior*, *16*(3), 387–396. doi:10.1177/0090552685163008

Diefenbach, T. & Sillince, J. A. A. (2011). Formal and informal hierarchy in different types of organization. *Organization Studies*, *32*(11), 1515–1537. doi:10.1177/0170840611421254

Edmondson, A. C. (2008). The competitive imperative of learning. *Harvard Business Review*, *86*(7/8), 60–67.

Gabelica, C., Van den Bossche, P., Segers, M., & Gijselaers, W. (2012). Feedback, a powerful lever in teams: a review. *Educational Research Review*, *7*(2), 123–144. doi:10.1016/j.edurev.2011.11.003

Gielen, S., Peeters, E., Dochy, F., Onghena, P., & Struyven, K. (2010). Improving the effectiveness of peer feedback for learning. *Learning and Instruction*, *20*(4), 304–315. doi:10.1016/j.learninstruc.2009.08.007

Gielen, S., Tops, L., Dochy, F., Onghena, P., & Smeets, S. (2010). A comparative study of peer and teacher feedback and of various peer feedback forms in a secondary school writing curriculum. *British Educational Research Journal*, *36*(1), 143–162. doi:10.1080/01411920902894070

Harms, P. L. & Roebuck, D. B. (2010). Teaching the art and craft of giving and receiving feedback. *Business Communication Quarterly*, *73*(4), 413–431. doi:10.1177/1080569910385565

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. doi:10.3102/003465430298487

Hewson, M. G. & Little, M. L. (1998). Giving feedback in medical education: verification of recommended techniques. *Journal of General Internal Medicine*, *13*(2), 111–116. doi:10.1046/j.1525-1497.1998.00027.x

Hoffman, M. A., Hill, C. E., Holmes, S. E., & Freitas, G. F. (2005). Supervisor perspective on the process and outcome of giving easy, difficult, or no feedback to supervisees. *Journal of Counseling Psychology*, *52*(1), 3–13. doi:10.1037/0022-0167.52.1.3

Hofstede, G. (2001). *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage Publications.

Hoogervorst, J., Van den Flier, H., & Koopman, P. (2004). Implicit communication in organisations: the impact of culture, structure and management practices on employee behaviour. *Journal of Managerial Psychology*, *19*(3), 288–311. doi:10.1108/02683940410527766

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology*, *64*(4), 349–371. doi:10.1037/0021-9010.64.4.349

Katsikea, E., Theodosiou, M., Perdikis, N., & Kehagias, J. (2011). The effects of organizational structure and job characteristics on export sales managers' job satisfaction and organizational commitment. *Journal of World Businesses*, *46*(2), 221–233. doi:10.1016/j.jwb.2010.11.003

Khatri, N. (2009). Consequences of power distance orientation in organisations. *Vision: The Journal Of Business Perspective*, *13*(1), 1–9. doi:10.1177/097226290901300101

Kluger, A. N. & DeNisi, A. (1996). The effects of feedback interventions on performance: a historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254–284. doi:10.1037/0033-2909.119.2.254

Kotter, J. P. (2012). Accelerate! *Harvard Business Review*, *87*(11), 44–58.

Krasman, J. (2010). The feedback-seeking personality: big five and feedback-seeking behavior. *Journal of Leadership & Organizational Studies*, *17*(1), 18–32. doi:10.1177/1548051809350895

Krasman, J. (2011). Taking feedback-seeking to the next "level": organizational structure and feedback-seeking behavior. *Journal Of Managerial Issues*, *23*(1), 19–30.

Latting, J. K. (1992). Giving corrective feedback: a decisional analysis. *Social Work*, *37*(5), 424–430. doi:10.1093/sw/37.5.424

Leung, K., Su, S., & Morris, M. W. (2001). When is criticism not constructive? the roles of fairness perceptions and dispositional attributions in employee acceptance of critical supervisory feedback. *Human Relations*, *54*(9), 1155–1187. doi:10.1177/0018726701549002

Li, L., Liu, X., & Steckelberg, A. L. (2010). Assessor or assessee: how student learning improves by giving and receiving peer feedback. *British Journal of Educational Technology*, *41*(3), 525–536. doi:10.1111/j.1467-8535.2009.00968.x

Linderbaum, B. A. & Levy, P. E. (2010). The development and validation of the feedback orientation scale (fos). *Journal of Management*, *36*(6), 1372–1405. doi:10.1177/0149206310373145

London, M. (1995). Giving feedback: source-centered antecedents and consequences of constructive and destructive feedback. *Human Resource Management Review*, *5*(3), 159–188. doi:10.1177/1059601199241002

London, M., Larsen, H. H., & Thisted, L. N. (1999). Relationships between feedback and self-development. *Group & Organization Management*, *24*(1), 5–27. doi:10.1177/1059601199241002

London, M. & Smither, J. W. (2002). Feedback orientation, feedback culture, and the longitudinal performance management process. *Human Resource Management Review*, *12*(1), 81–100. doi:10.1016/S1053-4822(01)00043-2

Madlock, P. E. (2012). The influence of power distance and communication on mexican workers. *Journal of Business Communication*, *49*(2), 169–184. doi:10.1177/0021943612436973

Medcof, J. W. & Song, L. J. (2013). Exploration, exploitation and human resource management practices in cooperative and entrepreneurial hr configurations. *The International Journal of Human Resource Management*, *24*(15), 2911–2926. doi:10.1080/09585192.2012.756055

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage Publications.

Mintzberg, H. (1980). Structure in 5's: a synthesis of the research on organization design. *Management Science*, *26*(3), 322–341. Retrieved from http://pubsonline.informs.org/.

Moore, D. S. & McCabe, G. P. (2005). *Statistiek in de praktijk*. New York, NY: W.H. Freeman & Company.

Morran, D. K., Stockton, R., Cline, R. J., & Teed, C. (1998). Facilitating feedback exchange in groups: leader interventions. *The Journal for Specialists in Group Work*, *23*(3), 257–268. doi:10.1080/01933929808411399

Mulder, M. (1977). *The daily power game*. Leiden, Netherlands: Martinus Nijhoff.

Mulder, R. H. & Ellinger, A. D. (2013). Perceptions of quality of feedback in organizations: characteristics, determinants, outcomes of feedback, and possibilities for improvement: introduction to a special issue. *European Journal of Training and Development*, *37*(1), 4–23. doi:10.1108/03090591311293266

Norris-Watts, C. & Levy, P. E. (2003). The mediating role of affective commitment in the relation of the feedback environment to work outcomes. *Journal of Vocational Behavior*, *65*(3), 351–365. doi:10.1016/j.jvb.2003.08.003

Nowack, K. M. & Mashihi, S. (2012). Evidence-based answers to 15 questions about leveraging 360-degree feedback. *Consulting Psychology Journal: Practice and Research*, *64*(3), 157–182. doi:10.1037/a0030011

Oxtoby, B., McGuiness, T., & Morgan, R. (2002). Developing organisational change capability. *European Management Journal*, *20*(3), 310–320. doi:10.1016/S0263-2373(02)00047-6

Raemdonck, I. & Strijbos, J.-W. (2012). Feedback perceptions and attribution by secretarial employees: effects of feedback-content and sender characteristics. *European Journal of Training and Development*, *37*(1), 24–48. doi:10.1108/03090591311293275

Robles, M. M. (2012). Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly*, *75*(4), 453–465. doi:10.1177/1080569912460400

Rosen, C. C., Levy, P. E., & Hall, R. J. (2006). Placing perceptions of politics in the context of the feedback environment, employee attitudes, and job performance. *Journal of Applied Psychology*, *91*(1), 211–220. doi:10.1037/0021-9010.91.1.211

Rothke, S. (1986). The role of interpersonal feedback in group psychotherapy. *International Journal of Group Psychotherapy*, *36*(2), 225–240. Retrieved from http://psycnet.apa.org/.

Salas, E., Rosen, M. A., & DiazGranados, D. (2010). Expertise-based intuition and decision making in organizations. *Journal of Management*, *36*(4), 941–973. doi:10.1177/0149206309350084

Shuman, L. J., Besterfield-Sacre, M. B., & McGourty, J. (2005). The abet professional skills - can they be taught? can they be assessed? *Journal of Engineering Education*, *94*(1), 41–55. doi:10.1002/j.2168-9830.2005.tb00828.x

Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, *78*(1), 153–189. doi:10.3102/0034654307313795

Shute, V. J., Hansen, E. G., & Almond, R. G. (2007). An assessment for learning system called aced: designing for learning effectiveness and accessibility. ETS Research Report No. RR-07-26, Princeton, NJ.

Smither, J. W., Brett, J. F., & Atwater, L. E. (2008). What do leaders recall about their multisource feedback? *Journal of Leadership & Organizational Studies*, *14*(3), 202–218. doi:10.1177/1071791907308463

Smither, J. W., London, M., & Reilly, R. R. (2005). Does performance improve following multisource feedback? a theoretical model, meta-analysis, and review of empirical findings. *Personnel Psychology*, *58*(1), 33–66. doi:10.1111/j.1744-6570.2005.514_1.x

Van der Rijt, J., Van de Wiel, M. W. J., Van den Bossche, P., Segers, M. S. R., & Gijselaers, W. H. (2012). Contextual antecedents of informal feedback in the workplace. *Human Resource Development Quarterly*, *23*(2), 233–257. doi:10.1002/hrdq.21129

Van der Rijt, J., Van den Bossche, M. W. J., P.and Van de Wiel, Segers, M. S. R., & Gijselaers, W. H. (2012). The role of individual and organizational characteristics in feedback seeking behaviour in the initial career stage. *Human Resource Development International*, *15*(3), 283–301. doi:10.1080/13678868.2012.689216

Van der Rijt, J., Van den Bossche, P., & Segers, M. S. R. (2013). Understanding informal feedback seeking in the workplace: the impact of the position in the organizational hierarchy. *European Journal of Training and Development*, *37*(1), 72–85. doi:10.1108/03090591311293293

Zagenczyk, T. J., Gibney, R., Murrell, A. J., & Boss, S. R. (2008). Friends don't make friends good citizens, but advisors do. *Group & Organization Management*, *33*(6), 760–780. doi:10.1177/1059601108326806

Operationalization

This chapter gives the operationalization that was used to define indicators. The indicators have been used as codes for the data analysis and data interpretation. The operationalization is presented in Table 12.

Table 12
Operationalization of variables

Variable	Definition	Dimensions	Indicators
Power distance	The distance between the feedback provider and the feedback user	Formal: hierarchy Informal	Employees Line managers Top management Age Years of service Arguments
Centralisation*	The inverse of the amount of delegation of decision-making authority throughout an organisation, and the extent of participation by organizational members in decision-making	Delegation Participation	Decision-making authority Involvement in decision-making
Formalisation*	The extent to which work activities are defined formally by policies and procedures	Policies Procedures	Behavioural code Stepwise work method
Progressiveness	Collective convictions about basic values and beliefs that are shared among employees in terms of excellence, encouragement and adaptability	Excellence Encouragement Adaptability	Desire for excellent performance Putting ideas into action Necessity to change Adaptation to changing external conditions
Vision communication	Formal communication of top management to employees about feedback	Formal communication	Planned Systematic Authoritative (top-down) Through fixed communication structure
Emphasized importance	Informal communication of management to employees about feedback	Informal communication	Unplanned Unsystematic Not authoritative Not through fixed communication structure
Provided support	Support from the organisation to provide and use feedback to and from each other	Organised opportunities	To learn to give feedback To learn to receive feedback To discuss given feedback To discuss gained feedback

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Table 12 – *Continued from previous page*

Variable	Definition	Dimensions	Indicators
Role models	Presence of employees/managers who provide colleagues with high quality feedback and use the feedback they get themselves as an exemplary role	Example providing	Give an employee feedback
			Give a manager feedback
		Example listening	Pay attention
			Hear with intention to understand
		Example using	Apply feedback
		Example asking	Explicit asking for feedback
Clear need	The felt need of the provider to give feedback to the receiver with the intention to help the receiver to develop himself	Necessity	Inevitability
			Brooks no delay
			Indispensability
			Importance
			Value
Feedback-seeking behaviour	The seeking of feedback from a colleague by a colleague	Voluntary engagement	Explicit asking for feedback
Psychological safety	Feelings of freedon to give and use critical feedback to colleagues/managers without the need to be afraid of neagtive consequences for his self-image, status, or career	Anxiety (give/receive)	Uncomfortable
			Fear
			Panic
		Self-image (give/receive)	Thoughts about own ability
			Thoughts about own knowledge
			Thoughts about own personality
		Status (give/receive)	Less acceptance by colleagues
			Rejection by colleagues
		Career (give/receive)	Change in career level
			Decreased change in growth
Message: sign	The sign of the feedback message	Positive	Compliment
		Negative	Critical comments
			Suggestions for improvement
Message: level	The level of the feedback message	Performance	Task level
			Process level

Table 12 – *Continued from previous page*

Variable	Definition	Dimensions	Indicators
Message: subject	The subject of the feedback message	Hard skills	Knowledge application of professional content
			Design/conduct experiments
			Analyse/interpret data
			Design/develop system, component, or process
			Identify, formulate & solve professional problems
		Soft skills	Communciation
			Functioning in team
			Professional/ethical responsibility
			Engagement in lifelong learning
Openness	The degree to which an employee is willing to listen to and use feedback in order to improve himself	Listen to feedback	Pay attention
			Hear with intention to understand
		Use feedback	Apply feedback
Openness of the other	The degree to which an employee considers the other willing to listen to and use feedback in order to improve himself	Listen to feedback	Pay attention
			Hear with intention to understand
		Use feedback	Apply feedback
Clear goals*	Measurable goals, in agreement between supervisor and employee, about the development and successful executing his work, so the provider can use these goals in the providing of normative feedback	Development	Agreement goals personal growth
			Agreement goals professional growth
		Performance	Task-related results

Note. Variables ending with * are only relevant for performance feedback

Interview Questions

This section provides the research questions that have been used for the interviews. Since all respondents were Dutch, the interview questions are Dutch as well.

1. Waar denk je aan bij feedback? Wat vind je van het idee om feedback te geven en te ontvangen?

2. Wat vind je van de visie van Nedap dat het belangrijk is om elkaar feedback te geven?

    a) Hoe is deze visie je duidelijk geworden?

3. Hoe vaak komt het belang van elkaar complementeren en opbouwende kritiek geven ter sprake bij jou, collega's en je marktgroepleider?

    a) Zou je hier een voorbeeld van kunnen geven?

4. In hoeverre geven jullie elkaar binnen het team opbouwende kritiek en complimenten?

    a) In hoeverre doe je dit zelf ook? Waarom?

    b) Geven jullie kritiek en complimenten aan collega's van andere teams?

    c) Wat zou je ervoor nodig hebben om dit te gaan doen?

5. Denk eens terug aan de laatste keer dat je iemand positieve of negatieve feedback hebt gegeven. Wat vond je ervan om dit te doen? Waarom?

6. Denk eens terug aan de laatste keer dat je positieve of negatieve feedback hebt gekregen. Wat vond je ervan om dit te doen?

    a) Hoe reageerde je op de feedback?

    b) Wat heb je met die feedback gedaan?

    c) Hoe vind je het om die feedback toe te passen? (wat heb je ervoor nodig om dit te doen?)

7. In hoeverre vraag je zelf aan collega's naar hun mening over iets wat je hebt gedaan?

    a) Wat zou je ervoor nodig hebben om dit te gaan doen?

8. Hoe word je door Nedap ondersteund in het leren hoe je iemand kritiek of complimenten kan geven en hoe je ermee om kunt gaan als je dit krijgt?

9. Hoe word je door Nedap ondersteund om feedback die je hebt gegeven of gekregen te bespreken met anderen binnen Nedap? In hoeverre krijg je hier de mogelijkheid voor?

10. In hoeverre heb je met je marktgroepleider doelen vastgesteld over je werk en je persoonlijke ontwikkeling?

11. Wat denk je dat er moet gebeuren om een sfeer binnen het team te creëren waarbij het hele team zich volledig richt op zo goed mogelijk presteren?

12. Hoe reageer je als iemand waarmee je samenwerkt een nieuw idee heeft en dit wil gaan uitwerken?

    a) Heb je hier een voorbeeld van?

13. Er veranderen continu zaken als de markt en waarschijnlijk ook wensen van klanten. Hoe gaat jouw team daarmee om?

14. In hoeverre heb je de bevoegdheid om beslissingen te nemen en knopen door te hakken in je werk?

15. In hoeverre zijn er regels, stappen of procedures waaraan je je moet houden bij het uitvoeren van je werk?

16. Uit welke hiërarchische lagen bestaat de marktgroep?

    a) In hoeverre zijn er ook informele hiërarchische lagen?

Translated Quotations

This section gives the translations that were made to insert quotations in the document. Since the original quotations were in Dutch, they have been translated into English quotations. Table 13 provides the quotations in both languages.

Table 13
Quotations in Dutch and English

Dutch	English
Ik wil dit aan jullie uitleggen en jullie stimuleren er iets mee te doen (...) iedereen moet zijn capaciteiten verder ontwikkelen.	I want to explain this to you and to encourage you to use it (...) everyone needs to further develop their capacities.
De effecten van een financile prestatiedip worden toegelicht: het blijft je jarenlang achtervolgen. Het is daarom noodzakelijk dit probleem aan te pakken. Dit gaan we doen door middel van het people excellence programma (...) We moeten onszelf blijven ontwikkelen en daarvoor is feedback nodig. Als niemand jou feedback geeft ga je nooit veranderen.	The effects of a financial relapse in performance will haunt you for years. Thats why it is indispensable to take care of this problem, which we will do by use of the People Excellence Programme (...) We need to keep developing ourselves and for that feedback is necessary. When no-one gives you feedback you will never change.
Moeilijk. Het is heel moeilijk want in principe moet je iemand vertellen wat jij vindt dat hij niet goed doet, dat is altijd een mening. (...) Of als het juist wel goed is in jouw oren dat je zegt goed bezig ga zo door. Zo zie ik dan feedback, ik vind het wel moeilijk.	Difficult. It is very difficult because basically you need to tell someone what you think he does not do right, that is always an opinion. (...) Or when it is right in your opinion and you say keep up the good work. That is feedback to me, I find it difficult.
Je moet het niet geven om het moeten geven, het moet wel ergens toe leiden en niet als doel op zich.	You should not provide it just to provide it, it needs to go somewhere and it is not an end in itself.
ik probeer het te benadrukken om mensen uit te nodigen om wel reactie te geven en mezelf dus kwetsbaar op te stellen, zodat zij makkelijker dingen durven te zeggen en dat ik het laat merken dat ik het waardeer als ze dat doen, ook bij kritiek.	I try to emphasize to invite people to react and to put myself in a vulnerable position to make it easier for them to say things and to let them know I appreciate it when they do it, also in when it is criticism.
Ik ben eigenlijk alleen met doelen van het werk bezig en niet zozeer met persoonlijke doelen. Gewoon dat we zeggen we moeten dan daar en daar staan en wat moet daarvoor gebeuren, maar persoonlijke doelen niet zozeer.	I only set goals for work and not so much personal goals. We just say we need to be there and there and what needs to happen to get there, but personal goals not so much.

Continued on next page

Table 13 – *Continued from previous page*

Dutch	English
Bij mensen waar ik wat meer door weerstand heen moet en waar ik merk dat ze dat eigenlijk niet van me accepteren of heel lastig vinden, vind ik het ook automatisch lastig. Dus zodra een soort vertrouwensband is van ik ben ok jij bent ok we gaan elkaar feedback geven, dan is dat heel soepel.	With people where I need to break through some resistance and where I notice they do not accept it or find it difficult, I automatically find it difficult as well. As soon as there is a relationship of trust like I am okay you are okay we give feedback to each other, then it is very easy.
Als je iets gemaakt hebt vraag je anderen erbij van kijk eens wat ik gedaan heb. En dat blijkt ook heel waardevol te zijn want je krijgt ook nieuwe ideen van je hebt een nieuwe feature gemaakt, zou je die daar en daarvoor ook kunnen inzetten. En zo krijg je eigenlijk gratis advies van waar je naartoe moet haha.	When you have made something you ask others look what I did. And it appears to be very valuable because you get new ideas like you made a new feature, could you use it for this and that as well. And thus you actually get free advice about where you need to go.
Ik heb het gevoel dat ik mijn eigen gang kan gaan, beslissingen nemen en keuzes maken of het nou over personeel is of ontwikkeling van producten en de markt, daar krijg ik de ruimte om dat zelf te doen.(...) Ik ben dus eigenlijk behoorlijk zelfstandig bezig, maar ik betrek anderen er wel bij om het zoveel mogelijk af te stemmen.	I feel like I can go my own way, make decisions and choices whether it is about staff or product and market development, I get space to do it myself. (...) So actually I am pretty independent but I involve others to coordinate on it.
Uiteindelijk is het idee dat iedereen binnen <marktgroep> zijn eigen beslissingen kan nemen binnen je eigen verantwoordelijk die je hebt.	In the end it is the idea that everybody in <market group> can make his own decisions within the responsibilities you have.
Ja weet je je moet altijd integer handelen, dat is normaal. En de procedure, ja dat is vooral met de contracten, dat je wel zodra je als je iets verandert dat je dan wel even, nou nu weet ik wel ongeveer wat binnen de kaders past, maar dat als iets helemaal nieuw is dat je dat wel eventjes aan iemand laat lezen die er ook verstand van heeft. (...) Er zijn wel veel regels en procedures maar die liggen niet vast. Het zijn meer de ongeschreven regels (...).	Yes you know you always need to act with integrity. And procedures are mainly about contracts, when you change anything, although I do know what fits, but when something is completely new you let someone else read it who also has knowledge about it. (...).There are rules and procedures but they are not fixed. It is about the unwritten rules (...).
Waar in de markt behoefte aan is of waar kansen liggen willen wij mee bezig zijn. Dat is denk ik wel logisch en goed daar kun je dan wel korte termijn en lange termijn dingen in onderscheiden, dat kunnen ook dingen zijn die botsen.	Where the needs are in the market or where opportunities are is what we want to deal with. I think that makes sense and well you can divide short-term and long-term things, and it is possible these two are in conflict.
Eigenlijk is het wel weggeëbd ja. Het gonsde wel even na die tijd <presentatie directie> van elkaar feedback geven vaak gekscherend werd er wel over gepraat, maar nu niet meer nee.	Actually it faded away. It has been talked about a little afterwards <presentation CEO> like giving each other feedback jokingly, but not anymore, no.
Die ondersteuning is er helemaal niet. Bij Nedap zijn op zich altijd mogelijkheden maar die worden absoluut niet aangereikt.	That support is non-existent whatsoever. In itself in Nedap opportunities always exist but they definitely are not handed out.
Maar hele serieuze meetings moet je zelf inplannen en dat gaat dan over functioneren en persoonlijkheid die 3ps zeg maar daar zijn we nog niet mee bezig.	But you need to schedule very serious meetings yourself and those are about functioning and personality those 3ps so to speak we are not doing that yet.
Nou ja nu het heel recent is na de presentatie van <CEO> wordt er meer over gesproken. En ik denk dat de mensen die ook wat meer feedback verwachten ook nu wat actiever zijn in het vragen daarvan. Ik denk dat er na het praatje van <CEO> wel meer over gesproken, maar dat we niet goed weten wat we ermee aan moeten.	Well now it is quite recent since the presentation of <CEO> it has been talked about more. And I guess people who expect more feedback will now be more active in requesting it. I think after the presentation it has been more discussed, but we do not know what to do with it.

Table 13 – *Continued from previous page*

Dutch	English
Zoals als je met <team> in gesprek gaat, die hebben een hele andere functie natuurlijk. Niet boven mij of onder mij, maar omdat zij meer weten van het onderwerp zijn zij altijd meer de leider zeg maar. Terwijl als het om <specialisatie> gaat dat het het omgekeerde is en dat ik wat meer de leiding neem. Ik denk dat dat informeel zo is. (...) Maar dat is situatiegebonden en ik denk dat het vooral ligt aan het onderwerp.	When you talk to <team>, they have a different function. Not above or under me, but because they know more of the subject they will always be leading. While when it is about <specialty> it is reversed and I will take charge. I think it is informally that way. (...) But it is depends on the situation.
Maar dat is wel iets dat binnen onze organisatie groot indirect geldt, dat Maar dat is wel iets dat binnen onze organisatie groot indirect geldt, dat er mensen zijn die hier al 25 jaar werken nou daar wordt echt wel anders tegenaan gekeken dan de mensen die 2/3 jaar in dienst zijn. er mensen zijn die hier al 25 jaar werken nou daar wordt echt wel anders tegenaan gekeken dan de mensen die 2/3 jaar in dienst zijn.	That is something that indirectly goes for our organisation, that there are people who have been working here for 25 years well they are certainly differently looked at than people who are 2-3 years in service.
Maar ik denk dat het in het begin wel heel erg emotioneel kan zijn. Ik denk dat een aantal mensen als zij iets horen van een collega dat ze dan zo niet gewend zijn dat ze niet weten hoe ze daarmee om moeten gaan.	I think in the beginning it can be very emotional. I think when some people hear something from a colleague they are not used to it and do not know how to deal with it.
Maar ik ben er ook van overtuigd dat er heel veel in het karakter van mensen zit. En als je iets slecht kan veranderen dan is het het karakter van mensen. Je kunt mensen op heel veel cursussen sturen (...) maar uiteindelijk verander je niet zo heel veel.	I am convinced it has a lot to do with peoples personality. And if there is something difficult to change it is peoples personality. You can send people to a training (...) but in the end you do not change a lot.
Want positief is nooit urgent. Er gaat niks mis als ik jou geen compliment geef. Maar als jij iets doet wat heel erg storend is gaat er wel wat mis als ik geen feedback geef. Dus feedback is bijna altijd gerelateerd aan negatief als je daar niks voor regelt.	Positivism is never urgent. Nothing goes wrong when I do not give you a compliment. But if you do something very disruptive something does go wrong when I do not give you feedback. So feedback is almost always related to negativity when you do not make arrangements.
(...) feedback is niet iets wat je nu zaait en meteen oogst, dat is altijd een lange termijn proces. (...) Maar ik denk dat de organisatie zich moet realiseren dat dat tijd kost en begeleiding (...). En dat mensen die dat moeten doen de mogelijkheid moeten hebben om begeleiding.	(...) feedback is not something you benefit from right away, it is a long-term process. (...) But I think the organization should realize it takes time and guidance (...). And people who need to start doing it need to have the opportunity to receive guidance.
Je merkt wel dat feedback geven naar boven toe is moeilijker als naar beneden toe. Ik weet niet waarom, ik denk dat het op de een of andere manier dat het tegen je gebruikt wordt of kan worden. Maar op zich de hele afdeling zit op n lijn, je zult niet zo snel naar <CEO> lopen om hem feedback te geven.	You do notice it is more difficult to give feedback upwards than downwards. I dont know why, I guess in a way it will or can be used against you. But the whole department is on one line, you wont go to <CEO> very fast to give him feedback.
Alleen wat er dan vaak (...) het traject ontbreekt om er iets mee te doen. Want als je dan aan <marktgroepleider> vraagt wil je mij daarbij helpen of mij daarbij begeleiden dat wil hij wel maar daar is dan niet de tijd of de ruimte voor. (...) Dus het is goed dat iemand het zegt en om er moeite voor te doen, maar als je er uiteindelijk niks mee kan heeft het ook niet zo heel veel zin.	Often the process is missing to do something with it. When you ask <market group leader> do you want to help me or give guidance he wants to but there is no time or space. (...) So it is good someone says it and to make an effort, but when you cannot use it in the end it is useless.

Table 13 – *Continued from previous page*

Dutch	English
Maar meestal komt het uiteindelijk toch wel, je hebt iedere dag een stand-up waarin iedereen uitspreekt wat er op dat moment speelt.	But mostly in the end, everyday there is a stand-up where everybody explains what is happening at the moment.
Nouja ik heb door middel van die retrospectives wel gezien dat je feedback wel kan organiseren en dat als je het organiseert dat er andere dingen uitkomen dan wanneer je het op zijn beloop laat (...).	Through the retrospectives I saw feedback can be organized and when it is organized other things arise compared to when you just let it be (...).
Ik word gemotiveerd als er een strategie en een missie en een visie is zodat ik op de lange termijn weet waar we naartoe gaan en heb je de middelen om dat te bereiken.	I get motivated when there is a strategy, a mission and a vision so I know for long-term where were going and do you have the resources to accomplish that.
(...) met het team om te kijken van wat gaan we dit jaar doen, waar gaan we op focussen. En als je daar brengt van we willen elkaar meer feedback geven omdat dit en dat en dat ook regelmatig herhalen.	(...) with the team to decide what we are going to do this year, what will be our focus. And when you integrate there we want to provide more feedback to each other because this and that and to repeat that.
Als zij maar blijven zien dat het telkens toch meer terugkoppeling is en samenwerken met elkaar, bespreken met elkaar en steeds beter weten wat (gezamenlijke) doelen zijn van elkaar, dan krijg je een teamgevoel en is het een gezamenlijke last in plaats van je eigen last. Je krijgt dan echt een team waarbij je gezamenlijk beter wil worden.	When they keep seeing it is about more feedback and more cooperation, discuss with each other and better know our (common) goals, you get a team spirit and it will become a shared burden instead of your own. You will get a team where you jointly want to become better.
En misschien kun je daarin ook trainen van hoe kan ik feedback geven zonder dat ik me daar rot bij voel of zonder dat ik mezelf een slijmbal vind omdat ik altijd heel positief ben.	Maybe you can train how I can give feedback without feeling miserable or without finding myself a bootlicker because I am always very positive.
Ja je zult de mensen erin mee moeten krijgen inderdaad dat het ook gebeurt. Dan moet je toch op een bepaalde manier wat brengen zo van dan moeten er ook handvatten zijn daar kan ik iets mee om in de praktijk te brengen.	You will need to get people involved so it really happens. Than you in some way need to give something to hold on to, I can use that to put it into practice.
Als je hoort wat er goed gaat kun je ook gemotiveerd raken. Als je alleen maar hoort wat er slecht gaat word je misschien wel gedemotiveerd. Die negatieve spiraal moet je ook voorkomen.	When you hear what is going right you can get motivated. When you only hear what is going wrong you might get demotivated. You need to avoid that negativity.
Ik denk als <CEO> niet open zou staan voor feedback of daar telkens op een bepaalde manier op reageert door elke keer te pareren of daar een schimmig antwoord op te pareren, dan merk ik bij mezelf dat ik toch een beetje die stijl ga overnemen.	I think when <CEO> would not be open to feedback or responds in a way by dismissing or give an indistinct answer, I adopt that style.
Ik denk dat het een heel stuk duidelijker zou zijn als de rol van de teamaanvoerder duidelijk (...) als daar bepaalde verantwoordelijkheden neerlegt die er wel of niet zijn en dat dat voor iedereen duidelijk is.	I think it would be a lot more clear when the role of the team captain is clear (...) when you add responsibilities that are or are not there it should be clear to everyone.

Results per variable

This chapter gives the final results that were used to assign values to the variables. For every variable the subtotal, percentage, value, total amount and weighted average are given. The results are presented in Table 14.

Table 14
Results per variable

Code	Subtotal	Percentage	Value	Total	Weighted average
Centralisation−	39	87%			
Centralisation±	5	11%	−	45	1.16
Centralisation+	1	2%			
Clear goals−	13	27%			
Clear goals±	6	26%	−	23	1.61
Clear goals+	4	17%			
Clear need−	1	5%			
Clear need±	14	64%	±	22	2.27
Clear need+	7	32%			
Difficulties	105	100%		105	
Emphasized importance−	7	64%			
Emphasized importance±	0	0%	−	11	1.73
Emphasized importance+	4	36%			
Feedback-giving skills	26	100%		26	
Feedback seeking behaviour−	10	29%			
Feedback seeking behaviour±	7	20%	+	35	2.23
Feedback seeking behaviour+	18	51%			
Feedback importance	63	100%		63	
Formalisation−	11	37%			
Formalisation±	6	20%	+	30	2.07
Formalisation+	13	43%			
Idea for approach	149	100%		149	
Message>hard skills	52	53%		99	
Message>soft skills	47	47%			
Message>negative	94	64%		146	
Message>positive	52	36%			
Openness of the other−	6	25%			
Openness of the other±	17	71%	±	24	1.79
Openness of the other+	1	4%			

Continued on next page

Table 14 – *Continued from previous page*

Code	Subtotal	Percentage	Value	Total	Weighted average
Openness−	12	19%			
Openness±	8	13%	+	62	2.48
Openness+	42	68%			
Performance fb−	17	35%			
Performance fb±	19	39%	±	49	1.92
Performance fb+	13	27%			
Power distance formal−	3	4%			
Power distance formal±	23	34%	+	68	2.57
Power distance formal+	42	62%			
Power distance informal−	1	7%			
Power distance informal±	4	29%	+	14	2.57
Power distance informal+	9	64%			
Progressiveness−	7	6%			
Progressiveness±	30	27%	+	112	2.61
Progressiveness+	75	67%			
Provided support−	21	64%			
Provided support±	2	6%	−	33	1.67
Provided support+	10	30%			
Psychological safety−	32	64%			
Psychological safety±	6	12%	−	50	1.60
Psychological safety+	12	24%			
Role models−	8	38%			
Role models±	8	38%	−	21	1.86
Role models+	5	24%			
Timing	8	100%		8	
Vision communication−	0	0%			
Vision communication±	0	0%	+	18	3.00
Vision communication+	18	100%			

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