

# MASTER THESIS

## Trust, Collaboration and Learning in a Hospital

## Nurses' perceptions of their team: effect of a learning intervention to improve the sense of trust during their collaboration

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**gelre**ziekenhuizen



## Abstract

To provide high-quality patient care, nursing team members need to collaborate effectively. Trust and interaction are two relevant pillars to establish this effective collaboration. This explorative study aimed to design, implement, and evaluate a learning intervention based on the need of the team to enhance the positive interaction and trust between the nursing team members. The underlying aims were to achieve insight into the perception of trust and the factors that influenced this trust. A quasi-experimental design and a mixed method of data collection were used. Based on a relational and systematic approach a learning intervention was designed and implemented in the experimental group. This intervention, for learning to provide constructive feedback on positive professional behaviour (meaningful compliments), aimed to improve the feedback culture in a nursing team. Before and after the implementation of the learning intervention a survey was conducted to measure its effectiveness. As an effect of the learning intervention significantly more constructive feedback providing behavior on positive professional behaviour was found in the trained group (part of the experimental group), which positively influenced their perception of trust and interaction. No positive effect on trust and interaction was found for the other team members as other factors negatively influenced trust and interaction. The results with regard to the underlying aims confirmed previous findings that the two pillars of collaboration, namely interaction and trust, are strongly and positively related. Furthermore, the results validated the pivotal role of a high-quality relationship for trust, and identified the relevance of the affective (emotional) aspects of trust. The findings emphasized the role of respect, and stressed the relevance of an open interaction as a basis for establishing effective collaboration. This study also revealed that gossip appeared more often when team members perceived a less open and honest interaction and less opportunity to share their influence. Gossip appeared less when a high-quality relationship was established and showed a strong negative influence on trust in case of a high-quality relationship. Furthermore, this study confirmed earlier findings that feedback is relevant for interaction to enhance trust. Additionally, this study found reasons why nursing team members perceived difficulties with providing and receiving constructive feedback. The findings led to a revised conceptual model. Subjects for further research and practical implications are discussed.

Keywords: nursing team collaboration, trust, learning intervention, constructive feedback.

# Acknowledgement

This thesis is the final project of my Master study Educational Science and Technology at University of Twente.

Now, at the end of my study, I remember the start of a wonderful time. Over four years ago, I discussed a possible next step in my career with my manager. For several years, I cherished a latent wish to study psychology due to my interest in the underlying ideas of people, which influences their behaviour. However, the profession of psychology did not seem to be attractive for me. Moreover, I enjoyed my job as educational advisor. Therefore, a beautiful opportunity appeared when there was a need for an educational advisor at academic level in my team. In advance, I never expected that learning about my profession during this study was such a joyful experience, whilst (age) peers could not imagine studying again for such a long time. Sometimes I had to get used to the different manner of education in contrast to my usual informal learning. However, most of the time I felt happy regarding the learning about my profession from a different perspective, whilst I added a dimension: the scientific view. Meanwhile, I was learning together with younger people. However, most of the time I did not feel this difference in age, as the subjects and goals of the study connected us.

By means of this thesis, I finish my final project. Firstly, I would like to thank my supervisors, Joseph and Maria, who supported me to choose a subject of my interest and provided me with feedback about my study. Joseph, you stimulated me to develop my interest in the subject trust during collaboration, instead of the choice to validate an existing scientific instrument. It was a challenging and inspiring experience to understand the theory about this topic and to compose my own theoretical framework. I want to thank you for your inspiring questions about my study and thesis. Maria, I would like to thank you for stimulating me to make the concepts and line of reasoning in my thesis more clearly.

Due to my study, I could not spend as much time with the people that are dear to me than I wanted to over the last four years. Therefore, I would like to thank my beloved Jaco in particular, who supported me in several ways. Furthermore, I want to thank Ina, my colleagues, and my family and friends. All these people supporting me felt like a warm bath. They convinced me that I would finish my study successfully.

Trust. It remains a difficult but fascinating and relevant aspect of collaboration. This study revealed that a high quality working relationship is relevant for trust. Mayer et al. (1995) related affective (emotional) trust to faith during a (working) relationship, in which emotional care and concern appears. Therefore, open interaction, providing meaningful compliments and constructive feedback can help to take a step further to an effective collaboration, which is based on affective trust. However, this will not always be an easy step and the current study revealed that somebody has to overcome hesitation or reluctance. Therefore, I would like to finish this acknowledgement with a quote that encourages in taking this first step:

*“Faith is taking the first step even when you don't see the whole staircase.”*

Martin Luther King, Jr.

Jettie Tolman - Jochems  
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## Introduction

In hospitals, nurses continuously collaborate with colleagues in their team to provide high-quality patient care. Working in a highly effective health care team requires collaboration, because multiple nursing team members take care for the same patients. This means that two or more persons share a common goal and accomplish mutual dependent tasks based on their specific roles (Stock, Mahoney, & Carney, 2013). Team members often expressed that trust in colleagues is a pivotal factor during collaboration. This is confirmed by Six (2004), who found that collaboration is always based on interpersonal trust. Additionally, Clelland and Zarankin (2012) state that collaboration is needed to enhance trust. Trust is defined as the extent to which individuals rely on each other and it refers to the affective interactive relationship between these persons (Mayer, Davis, & Schoorman, 1995). Lencioni (2009) stated that trust is an indispensable basis for conflict resolution and that a trustful collaboration in a team is indispensable to reach team effectiveness. In particular, Stock et al. (2013) found that a trustful collaboration is necessary for nursing team members to provide high-quality patient care. Moreover, a trustful collaboration in a team is required to achieve common learning (Knipfer, Kump, Wessel, & Cress, 2013; Montiel-Overall, 2005). This is especially important as most of the learning of qualified nurses occurs mainly informally during work (Torunn Bjørk, Tøien, & Lene Sørensen, 2013).

Results of a survey concerning the learning climate (Gelre Ziekenhuizen, 2014) showed that 31% of the qualified nurses, as well as 22% of the nurse students, responded that qualified nurses do not always effectively resolve encountered conflicts about patient care. Furthermore, the students and nurse teachers encounter occurrences whereby nursing team members provide unconstructive feedback not only to the students, but also to their (qualified) colleagues. These events lead to a worrisome decline of trust among both qualified team members and students in the nursing team.

Based on the above, it becomes clear that trust within the nursing team is essential for qualified nurses to collaborate effectively. Furthermore, trust is essential to provide a trustful learning culture for student nurses. Moreover, collaboration between nurses and physicians is increasingly emphasized for the purpose of high-quality patient care. The assumption for this study is that first a trustful collaboration in the nursing team needs to be established. This effective collaboration refers to the team atmosphere, which is characterized by respectful, open relationships between the team members (Hilli, Salmu & Jonsén, 2014). Subsequently, a trustful learning culture for students and an effective multiprofessional collaboration can be established. Since trust is the basis for collaboration, the trustful nursing team collaboration needs to be investigated first. However, collaboration is essential to enhance the sense of trust. Therefore, investigation of this mutual relationship between trust and collaboration is needed.

Studies about effective collaboration within a hospital (Bruijne & Bleeker, 2013; Copnell, Johnston, Harrison, Wilson, Robson, Mulcahy, & Best, 2004; Knipfer et al., 2013; Ouwens, Hulscher & Wollersheim, 2009) particularly concentrated on interventions at the level of outcomes of (multiprofessional) collaboration. However, fewer studies (Evans & Revelle, 2008; Montiel-Overall, 2005) focus on enhancing trust to improve collaboration. Moreover, little is known about informal learning interventions at the workplace to improve the effective collaboration of an existing team. Therefore, the aim of this explorative study was to measure the effectiveness of a learning intervention, which intends to enhance the interpersonal trust between the nursing team members. The main research question was to what extent this learning intervention contributed to the enhancement of the interpersonal trust during collaboration of these nursing team members. The results will provide insight into the influence of this learning intervention on the factors that determine trust in a nursing team.

## Research questions

The perceived need to achieve insight into the relation between trust and collaboration and the influence of a learning intervention on this relation leads to the following research questions:

Research question

1. *What is the effect of the used learning intervention that aims to enhance the interpersonal trust during collaboration in a nursing team of Gelre Ziekenhuizen?*

To enable the measurement of the effectiveness of the learning intervention, insight into the perceptions of trust of the nursing team members is necessary. In Gelre Ziekenhuizen, it is unclear to what extent the nursing staff members perceive the collaboration in their team as trustful. This unclarity leads to a set of subsequent research questions:

- a. *How do the nursing staff members of Gelre Ziekenhuizen perceive the interpersonal trust during their collaboration in the team?*
- b. *Which factors influence the interpersonal trust of these team members during their collaboration?*

This study focused on the nursing team members of nursing departments of Gelre Ziekenhuizen, location Apeldoorn. In consultation with a focus group of the Experimental group, a suitable learning intervention was developed and subsequently implemented and performed. To measure the effectiveness of this learning intervention, a survey was conducted before and 10 weeks after the implementation of the learning intervention.

Firstly, the theoretical concept of collaboration, related trust and the learning intervention will be explored. Subsequently, the used method for data collection and analysis will be described. Thirdly, the results will be displayed. Finally, the conclusion, discussion, implications and further research will be presented.

## Theoretical framework

In this thesis, collaboration refers to the working relationship between the team members of a nursing department in a hospital. First, the concept of collaboration is explained. In particular, interaction and trust are the most relevant factors of collaboration and will be explored in more detail. Subsequently, the relevance of collaboration for the learning of nurses will be explained. Then, the theoretical basis for a specific learning intervention aiming at stimulating interaction and enhancing trust will be elucidated. Finally, the research model is displayed.

### Collaboration

In a nursing team, professionals fulfill specific roles during their collaboration to jointly provide patient care. Head (2003) found that effective collaboration is an interdependent and mutual process whereby individuals share their knowledge about the task. Through effective knowledge sharing, employees create a meaningful shared vision and goals about the interdependent task and learning (Bruijne & Bleeker, 2013; Ouwens et al., 2009; Stock et al., 2013). The interdependency and mutuality refers to the working relationship of the individuals. A high-quality working relationship is positively related to trust and this trust leads to learning (Carmeli, Brueller, & Dutton, 2009; Eraut, 2004; Luna-Reyes, Cresswell, & Richardson, 2004). Above all, trust is the most relevant factor for collaboration (Dirks, 1999; Eraut, 2004; Luna-Reyes et al., 2004; Six, 2004) and the related learning (Eraut 2004; Luna-Reyes et al., 2004). For the purpose of this thesis, collaboration in a nursing team is defined as an interdependent working relationship between two or more individuals who interact based on trust to create a shared vision and goals, which can lead to positive outcomes (Head, 2003; Montiel-Overall, 2005; Stock et al., 2013).

To establish a high-quality relationship, two interrelated pillars are generally considered as the most relevant for effective collaboration: *Trust* and *Interaction* (Luna-Reyes et al., 2004; Montiel-Overall, 2005; Six, 2004). Therefore, in the next section these two concepts will be further explored.

### Trust

As trust is the most relevant factor of a high-quality relationship during collaboration (Carmeli et al., 2009; Eraut, 2004; Six, 2004), the concept of trust will be explored below. First, the concept and conditions of trust will be presented. Subsequently, the personal perspectives on trust will be explored.

**Concept.** Firstly, there seems to be a lack of agreement on the diverse meanings, forms and causes of trust, as found in definitions, perspectives and outcomes of trust (Bhattacharya, Devinney, & Pillutla, 1998; Goudge & Gilson, 2005). Trust focuses on emotions, beliefs, and intentions that are related to the psychological interpersonal interactions (Lewicki, Tomlinson, & Gillespie, 2006; Luna-Reyes et al., 2004). However, the persons involved in these interpersonal interactions are not always aware of these processes (Six, 2004). Hence, individuals often perceive trust as a vague indefinable, intuitive sense, which is difficult to elucidate. Therefore, this perception of the concept is often expressed as sense of trust. A common finding is that trust appears as a dynamic phenomenon, which means that the degree of trust changes and therewith influences the degree of knowledge sharing and learning (Luna-Reyes et al., 2004).

The development and maintenance of trust is recognized as an important element of human relationships at individual, group and organizational level (Luna-Reyes et al., 2004). These researchers indicated that central within these three levels are the interpersonal factors. This interpersonal concept focuses on the trust into another person (Luna-Reyes et al., 2004), which is a reciprocal process (Evans & Revelle, 2008). By nature, every human being has a certain degree of trust (Lewicki et al., 2006). However, Six (2004) found that personal contact is relevant for building trust. To start with, professionals have to know each other, after which trust increases during further collaboration (Boor, 2009; Luna-Reyes et al., 2004). This implies that interaction is the central factor that influences trust. Six (2004) emphasized that in particular the psychological aspects of this interaction, such as expressing emotions, determine the degree of trust.

**Conditions.** In fact, trust solely appears when there is interdependency in which both parties perceive a certain amount of risk (Delgado-Márquez, Hurtado-Torres, & Aragón-Correa, 2013; Luna-Reyes et al., 2004). This mutual dependence implies that the persons involved need to be vulnerable to

each other (Luna-Reyes et al., 2004). These two conditions, vulnerability and risk, are closely related to the interaction between people. This means that employees are willing to share their knowledge and provide feedback, when they believe in the trustworthiness of others (Luna-Reyes et al., 2004). This willingness is based on previous experiences with the person involved (Luna-Reyes et al., 2004; Six, 2004).

To conclude, literature shows that trust is a concept that is difficult to define and to investigate (Bhattacharya et al., 1998; Goudge & Gilson, 2005). Since this study focuses on interpersonal interaction, *Trust* is defined as:

*The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party*

(Mayer et al., 1995, p. 712).

In sum, trust is based on the interaction between the persons involved. This interaction refers to the nature of their relationship. As mentioned earlier, a high-quality relationship is relevant for the perception of Trust. Therefore, the features of this relationship will be explored now.

**High-quality working relationship.** Dutton and Heaphy (2003) point out that, in a high-quality relationship, persons involved feel safe to mutually express their positive and negative emotions. Persons who share these feelings show a higher mutual emotional care-giving bond (Dutton & Heaphy, 2003). This bond leads to a deeper sense of trust (Dutton & Heaphy, 2003) and a sense of collegial friendship (Nugent & Abolafia, 2006). Nugent and Abolafia (2006) stressed that this collegial and reciprocal relationship differs from a private relationship, as it is limited to the work situation. People who experience high-quality working relationships know each other and feel respected and appreciated (Dutton & Heaphy, 2003). Such a high-quality relationship is indispensable for common learning by knowledge creation and provides the opportunity for (personal) development and creativity (Dutton & Heaphy, 2003). It becomes clear that trust refers to the relationship between the persons. As a consequence, the trustworthiness is based on experiences of these persons with their mutual interactions. Mayer et al. (1995) found that ability and intentions are two dimensions that express the degree of trustworthiness of the other party. Ability and intentions are interrelated dimensions (McAllister, 1995; Six, 2004). A relevant distinction between these dimensions is cognitive and affective trust. Ability refers to the cognitive trust, and intentions to affective trust (McAllister, 1995). This distinction will be explained below.

**Cognitive and affective trust.** Cognitive trust includes the rational aspects of trust, for example trust into the competence of the other, good reasoning and responsibility (McAllister, 1995). McAllister (1995) found that cognitive trust is the antecedent of affective trust.

Affective trust refers to the emotional bond between persons, for example care for each other, or interest in the other person (McAllister, 1995). McAllister (1995) stressed the relevance of this affective trust and the high-quality relationships. This psychological, affective perspective of trust is reflected into the intentions of a person (Six, 2004). These intentions relate to the dedication and benevolence of the persons involved. Dedication refers to the extent to which it is supposed that a person delivers the expected positive effort (Six, 2004). Benevolence refers to the extent to which it is believed that the other party wants to do something for the other without self-interest (Mayer et al., 1995). Baker et al. (2013) stated that affective trust is essential for employees to be honest about their performance. Moreover, these authors argue that affective trust is an antecedent of feedback seeking behavior. Previous findings showed that affective trust is the most relevant determinant of a trustful culture (McAllister, 1995). McAllister (1995) asserted that when affective trust is established, cognitive trust may not even be relevant. Based on these findings it can be expected that:

*Conjecture 1: Perceptions of trust are more frequently related to affective trust than to cognitive trust.*

Above all, reciprocal trust is the most relevant factor for collaboration (Eraut, 2004; Evans & Revelle, 2008; Luna-Reyes et al., 2004; Six, 2004). The other way around, intensive forms of collaboration



enhance trust (Montiel - Overall, 2005). Especially the communication is a relevant form of interaction that influences the interpersonal trust (Clelland & Zarankin, 2012). This confirms the interplay between interaction and trust. Therefore, the concept of interaction will be explored below.

## Interaction

The central process of collaboration is the interaction (Boor, 2009; McAllister, 1995; Six, 2004) and refers to the communication between the persons involved (Clelland & Zarankin, 2012; Six, 2004). For this study, *Interaction* is defined as the communicational actions based on interpersonal social contact between team members (Clelland & Zarankin, 2012; Six, 2004). Different levels of Interaction are found.

**Trust enhancing actions.** In particular, knowledge sharing and feedback are relevant forms of Interaction within collaboration (Luna-Reyes et al., 2004). The study of Torunn Bjørk et al. (2013) revealed that sharing knowledge and experiences often occurs during the collaboration of nurses. However, nurses in the studied hospital (Gelre Ziekenhuizen) expressed their difficulties with providing feedback not only towards colleagues, but also towards nurse students and doctors. The reason for these difficulties is that nurses express that feedback is more personal than sharing knowledge, as they do not want to damage the relationship with colleagues and other professionals. This suggests that feedback is a manner of Interaction that refers to the relationship between the persons involved. Actually, difficulties with providing and receiving feedback are a common phenomenon (Baker, Perreault, Reid, & Blanchard, 2013). These authors emphasize that trust is the basis for feedback. Furthermore, Baker et al. (2013) stressed that positive feedback fosters a trustful collaboration. This means that offering compliments enhances trust. In particular, a meaningful (Aakhus & Aldrich, 2002) and sincere (Dijkstra, 2011) compliment stimulates positive interaction.

The forms of Interaction are in line with the four types of trust enhancing actions of Six (2004). These types of actions based on literature are defined as *Being open*, *Share influence*, *Delegate*, and *Manage expectations* (Six, 2004). Being open encompasses behavior like providing information timely, providing positive and negative feedback and being honest and open about work problems and own motives. Share influence refers to actions like giving and asking for help and counsel, showing care and interest for the other, and taking decisions jointly. Delegate encompasses actions like giving and taking responsibility, which implies interdependency. Manage expectations pertains actions such as adjusting expectations and evaluation of the effectiveness of the collaboration. The positive actions of Six (2004) are in line with the previously described forms of Interaction, namely knowledge sharing and feedback. However, the actions of Six (2004) reflect more the personal relationship between the persons involved. Actions with regard to the personal relationship are in particular reflected in the action Share influence. In fact, the actions described above are directly related to Trust. Therefore, a positive relation between positive actions and trust can be expected. This leads to the following prediction:

*Conjecture 2: Trust enhancing actions are positively related to Trust.*

**Trust breaking action.** Information of a third party, for example a colleague, about trust in a particular person is called trust transfer (Delgado-Márquez et al., 2013; Six, 2004). This information influences the perceptions and beliefs of a trustor (the trusting party) with regard to the trustworthiness of the other party (Delgado-Márquez et al., 2013; Six, 2004). Specifically, gossip is perceived as trust breaking behavior (Rushton, Reina, Francovich, Naumann, & Reina, 2010). *Gossip* is defined as talking about another person behind one's back without positive intentions (Rushton et al., 2010). Rushton et al. (2010) found a positive relation between the number of years that a nurse performs her profession and trust breaking behavior. However, these researchers did not explain the cause of this relation. Actually, as Gossip refers to the Interaction between team members it can be expected that this trust breaking behavior is related to their working relationship. Hence, this leads to the expectation that:

*Conjecture 3: The perception of Gossip in a team is negatively related to Trust.*

In sum, the literature shows that Trust and Interaction are relevant pillars for collaboration (Luna-Reyes et al., 2004). In particular, Trust is related to Interaction and also to learning during collaboration in the workplace. This implies that working and learning are integrated. The perspective of learning during collaboration and features of workplace learning of nurses will be explored below.

## **Relevance of collaboration for learning of nurses**

As working and learning are integrated, the relation between these two concepts seems close. Moreno-Black and Homchampa (2008) confirm this relation and describe collaboration as a learning experience. Eraut (2004) defined learning during work as informal learning, which implies an undesigned and often unconscious acquisition of knowledge. Torunn Bjørk et al. (2013) reported that in the hospital setting learning by nurses often occurs incidentally and unconsciously during interactions with colleagues and other professionals. Therefore, informal learning is a relevant form of learning of nurses. However, a trustful personal relationship is indispensable for their learning (Carmeli et al., 2009), for example to tell about mistakes (Singer, Gaba, Geppert, Sinaiko, Howard, & Park, 2003) and to feel free to ask all questions (Hilli et al., 2014). As explored above, knowledge sharing and feedback are related to learning, but these forms are likewise related to working. This confirms the interplay between both and refers to Interaction. Above all, collaboration is important for employees who participate in problem solving and innovation (Kessels & Verdonchot, 2012). The leader of a team has an essential role to establish the necessary conditions to create a trustful working and learning culture (Baker et al., 2013; Edmondson, 1996). More specifically, Torunn Bjørk, et al. (2013) confirmed the inspiring role of the leader, which is necessary to stimulate a culture of sharing knowledge and experiences to discuss difficult nursing cases.

Concluding, effective collaboration implies that working and learning are integrated. These positive outcomes of effective collaboration will be further described in the following section.

## **Outcomes of effective collaboration**

The outcomes of effective collaboration relate, among others, to shared vision and goals, and to learning of employees and job satisfaction due to the relationship between team members. The effectiveness of the collaboration within a team determines the level of shared goals and vision (Bruijne & Bleeker, 2013; Ouwens et al., 2009). The reverse is also true, since collaboration will improve when perceptions about collaboration and learning are shared between team members (Lencioni, 2009; Montiel-Overall, 2005). It is assumed, that learning is the effect of an effective and trustful collaboration (Knipfer et al., 2013; Montiel-Overall, 2005). The other way around, feedback and learning also enhances Trust (Luna-Reyes et al., 2004). Furthermore, collaboration largely determines the job satisfaction of nurses (Copnell et al., 2004). In particular, a high-quality relationship is perceived as motivating and positively stimulates learning behaviour (Carmeli et al., 2009).

In sum, effective collaboration refers to a high-quality working relationship between team members. This collaboration is established by positive interaction and trust, which subsequently leads to a high level of shared vision and goals. During effective collaboration the learning of nursing team members is integrated in their work. Based on the literature it can be assumed that Trust and positive Interaction are necessary for nurses to effectively collaborate with colleagues in their team. One of the factors that can influence the Interaction to enhance this Trust is a learning intervention. Therefore, the aim of this study is to implement a specific learning intervention, which influences Interaction to enhance Trust of the team members. The rationale for the choice of this learning intervention will be explained in the following section.

## **Learning intervention: improve trustful interaction**

In particular, the learning intervention in this study, offering meaningful compliments, was based on positive interactions, as these stimulate the building of positive relationships (Mills, Fleck & Kozikowski, 2013). According to Six (2004), providing positive and negative feedback is a trust enhancing action. However, nurses frequently encounter difficulties with providing feedback (Gelre

Ziekenhuizen, 2014). Baker et al., (2013) recognized that feedback is often unconstructive or focuses on negative behaviour of the feedback receiver. Therefore, the result of feedback is often inefficacious (Baker et al., 2013). Baker et al. (2013) emphasize that affective trust is indispensable for providing and receiving feedback. Therefore, Baker et al. (2013) advise to provide feedback from a positive perspective and in an informal setting. Offering compliments suites to this positive perspective of providing feedback (Aakhus & Aldrich, 2002). Therefore, offering meaningful compliments, which in particular focus on positive professional behaviour, seems a suitable learning intervention. The aim is to stimulate positive experiences, because these enhance trust (Luna-Reyes et al., 2004; Six, 2004). Baker et al. (2013) state that team members more frequently provide and seek feedback when they perceive trust. These findings led to the assumption that team members show a greater propensity to provide constructive feedback on unwished professional behaviour when they also offer meaningful compliments.

As informal learning seems to have a greater effect than formal learning activities (Eraut 2004; Mankin, 2009), a learning intervention based on informal learning was conducted. This suited to the professionals, as informal learning is a relevant form of learning of nurses (Torunn Bjørk et al., 2013). Generally, many compliments are offered about the appearance of a person, for example hairstyle. However, Dijkstra (2011) states that this kind of compliments does not make sense to enhance trust during collaboration. Aakhus and Aldrich (2002) described that a meaningful compliment has a condition of positive, appreciative value with a noteworthy attribution of the compliment receiver. Therefore, a written instruction with communication steps to offer a meaningful compliment was developed. Examples of a meaningful compliment in a professional context focus on professional behaviour and the positive results of that behaviour, for example “Great that you listened to the problem I met with this patient. You helped me to find a solution and now I know how to take further care for the patient”. A description of the method to develop the learning intervention can be found in the chapter Method.

As relationships develop over time (Luna-Reyes et al., 2004; Six, 2004), and the degree of Trust changes (Luna-Reyes et al., 2004), it was expected that the effect of the learning intervention on Trust and Interaction will not be significant within the timeline of this study. No literature was found indicating how much time is needed to achieve a significant effect of providing meaningful compliments. However, a positive effect of the learning intervention within the timeline of the study was expected. In specific, it was expected that the mean scores of Trust and Interaction would have increased within the timeline of the study. Related to the effect of the learning intervention, the following conjectures are formulated:

*Conjecture 4a: The learning intervention will positively influence Interaction and the related Trust.*

*Conjecture 4b: The effect of the learning intervention will not be significant within the timeline of this study.*

As explained above, Trust and Interaction are the two most relevant pillars of collaboration. Therefore, these two pillars were the subject of this study and led to the research model. Furthermore, these pillars were used to measure the effectiveness of the learning intervention. The pillars, the intended learning intervention and the related conjectures, are displayed in Figure 1.

## Research model

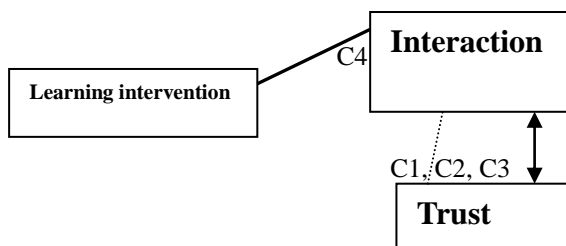


Figure 1: Research model

The model displays the relation between the two relevant factors of collaboration, namely Interaction and Trust. The learning intervention is a part of the trust enhancing action Being open (Six, 2004), which is one type of the four trust enhancing actions. Therefore, the expectation was that this action would enhance the factor Trust. As a consequence, less attention was paid to the other three trust enhancing actions of Six (2004) during the development and implementation of the learning intervention.

## Method

In this chapter, the research method and the method of the development and implementation of the learning intervention are described. Firstly, the context of the study is presented. Subsequently, the research design, the instruments, the procedures, and the data analysis will be explained. Furthermore, the process of the implementation of the learning intervention is described.

### Context

The current study is conducted at Gelre Ziekenhuizen. This high-level care hospital has two locations. Research and education are relevant subjects of the mission of the hospital. Therefore, this hospital has achieved the STZ status (Cooperating Top clinical teaching Hospitals).

**Respondents.** This study focused on the staff members of two nursing departments at Gelre Ziekenhuizen, location Apeldoorn, which specialize in the health needs of patients who require highly specialized care. Therefore, the nurses who are working at these departments have finished their bachelor nursing study first. Subsequently, they have finished a study that focuses on highly specialized care for the specific group of patients of the department. Most of the staff members (85%) of all departments are nurses and the additional 15% are nurse students, midwives, pedagogical therapists, medical technical assistants and nurse aides. According to the leader of the first department, the 66 team members wanted to improve their feedback culture. Therefore, this team was selected as the team for the learning intervention and formed the Experimental group. The staff of the second department formed the Control group. This team was composed of 62 employees. A third team (39 team members), who provided a comparable level of highly specialized care, provided data to enhance the validity of the quantitative and qualitative measurement of the first survey. This team was called Team 3.

The response of the teams to the first survey diverged from 61% until 91%. Two persons of the Experimental group withdrew after they started the survey. One person argued that the statements were not representative and the other person stated that she could not respond for other persons. Finally, 39 team members (60,9%) of this team, 34 persons (54,8%) of the Control group and 39 team members (90,7%) of the third team responded to the first survey.

Despite two reminders and extension of the entry deadline only 24 (37,5%) team members of the Experimental group responded to the second survey, although only 18 team members responded to both surveys. The reason of the disappointing response was the heavy workload during these weeks at the department of this team. In contrast, 34 (54,8%) team members of the Control group responded to this second survey. This was exactly the same number of respondents compared with the first survey. Most of these respondents, namely 26 team members, responded to both surveys. Based on the outcomes of the first survey the leader of the Control group felt the need to discuss the results of this first survey. This was an understandable need as team collaboration was perceived as very important for the quality of patient care and the well-being of the employees. Therefore, a team meeting was held about the manner of communication between the team members. However, due to this meeting, the Control group could not function as a control group for the measurement of the effect of the learning intervention. Therefore, only the results of this team with regard to the qualitative measurement were included in second survey.

**Team for the learning intervention.** The Experimental group that wanted to improve the feedback culture was largely composed of nurses (85%). Furthermore, other professionals were working in this team. To determine the learning needs of the team members, a focus group was composed from the Experimental group. The members of this focus group were two nurses, two other professionals and the team leader of the Experimental group. The role of this focus group was two-fold. Firstly, based on the systematic and relational design approach (Kessels & Plomp, 1999), the learning needs, the learning goal, the results and related learning intervention of the team members were determined during the meetings with this focus group. Secondly, based on the aforementioned analysis, the Focus group was the group who initiated the learning intervention. Therefore, this group could be viewed as a specific group in the Experimental group. It could be argued that the Focus group was the experimental group. However, the other team members of the team were influenced by the behavior of the Focus group. Therefore, in the research design and for the calculation of the effect of the learning

intervention, the Experimental group was divided into the Focus group and the other team members.

## Research design

The data collection was a mixed method to obtain quantitative and qualitative data, which was collected with the same group of respondents through a pre-test and post-test design (Verschuren & Doorewaard, 2007). First, the perceptions of the team members about Interaction and Trust of the three above described teams were investigated. Subsequently, in the Experimental group a learning intervention was developed and implemented, which aimed to enhance the interpersonal trust, by offering meaningful compliments. After ten weeks, the relevant parts of the survey were repeated to determine the effect of the intervention on Interaction and Trust. Therefore, in this study a quasi-experimental design (Campbell, Stanley, & Gage, 1963) was applied. The units of analysis were the teams of two nursing departments of Gelre Ziekenhuizen, namely the Experimental group and the Control group. In the Experimental group, the unit of analysis was also the Focus group (5 persons) who initiated the meaningful compliment offering behavior and the other team members (61 persons). The other team with comparable context was the Control group. Figure 2 shows the research design to measure the effect of the learning intervention.

Experimental group: Focus group	O	X	O	O = measurement X = learning intervention Y = influence learning intervention
Experimental group: other team members	O	Y	O	
Control group:	O		O	

Figure 2. Research design.

## Measure

The first and second survey contained a measurement with statements to obtain quantitative data. Self-formulated open and closed questions were added to obtain qualitative data. These two instruments that were used to measure Trust and Interaction were combined into one digital survey. Furthermore, general questions were added to obtain insight into the demographics of the respondents. Trust and Interaction are related concepts and this relation is also reflected in these instruments. Firstly, the instruments will be introduced. Thereafter, the measurement of the demographics and the effect of the learning intervention will be described based on these instruments.

### Instruments.

**Quantitative data: TDM (Stock et al., 2013).** Firstly, the surveys included a measurement with statements to obtain quantitative data. Generally, it is recommended to use an existing instrument for research (Dooley, 2009). Unfortunately, no suitable Dutch measurement with statements about perceptions of Interaction in the team was found. However, a relevant English alternative was available. The Team Development Measure (TDM) (Stock et al., 2013) is a reliable and a valid instrument. This instrument was developed and used for American health care workers at various work settings. Therefore, this English measurement was translated into Dutch and translated back to English. The statements were based on a 4-points Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). The TDM (Stock et al., 2013) was the main part of the first survey as well as the second survey. The statements of the TDM (Stock et al., 2013) reflect both Trust and Interaction.

**Trust.** The TDM (Stock et al., 2013) encompasses statements about the relation between team members and appreciation of unique attribution of team members. Therefore, these statements reflect the emotional bond between team members, which is a relevant affective aspect of trust. Examples are statement 6 “All team members feel free to express their feelings with the team” and statement 26 “I am allowed to use my unique personal skills and abilities for the benefit of the team”. Furthermore, the TDM (Stock et al., 2013) encompasses statements about the responsibilities of the team members and the tasks that team members need to perform. These statements referred to cognitive trust. An example is statement 17 “Roles and responsibilities of individual team members are clearly understood by all members of the team”.

**Interaction.** The interaction between team members was also measured by the TDM (Stock et al., 2013) during both surveys. Subjects of the statements of the TDM (Stock et al., 2013) were the

manner of respectful and caring communication and conflict resolution, sharing information and feelings, discussing decisions, problem solving, and distribution of tasks. As admitting mistakes is difficult for nurses (Singer et al., 2003), four statements about the perception of admitting mistakes by team members and by the respondents themselves were added. An example is “In our team, mistakes are easily admitted”.

*Validity and reliability check.* To check the validity of the TDM (Stock et al., 2013) and added statements, a Principal Components with Varimax factor analysis was conducted in SPSS v21. As four statements (statements 3, 15, 16 and 27) of the TDM (Stock et al., 2013) were negatively formulated, the responses to these statements were reversed before the analysis was performed. The Kaiser Normalization (KMO = .71) and the Bartlett’s test of Sphericity ( $p < .001$ ) confirmed that the data was suitable to conduct a factor analysis. The rotated factor matrix was used to determine the factors as this calculation displayed the most clear distinctive loading of the items on one factor. All items that loaded higher than .4 on a factor were included into the factors. Item 7 did not load higher than .4 on any factor. Therefore, this item was removed. The screeplot suggested 6 or 10 scales. Although insights differ about the minimum eigenvalue of the found scales (Field, 2013), primarily all scales with an eigenvalue higher than 1.0 were used. After the factor analysis, the calculation of the reliability (Cronbach’s Alpha) of the found scales was performed. The reliability of four scales was improved by removing one item each. Solely the first six scales showed sufficient reliability and an eigenvalue  $> 1.5$  and were therefore used for the results of this study. Table 1 shows the results of the six scales with their related statistics. The overview of these scales and related statements is included in Appendix 3.

*Table 1. Final Scales Team Development Measure and added statements.*

Scale	Eigen value	Eigenvalues		Number of statements	Cronbach’s Alpha	M	SD
		% explained variance	Cumulative % explained Variance				
1. Relationship	7.26	20.76	20.76	5	.74	2.57	0.36
2. Task division	2.88	8.23	28.98	4	.71	2.84	0.44
3. Joint decision	2.22	6.33	35.32	4	.67	2.37	0.35
4. Meaningful contact	1.90	5.43	40.75	2	.76	3.10	0.42
5. Open-honest	1.73	4.93	45.68	3	.69	2.53	0.42
6. Individual addition	1.59	4.53	50.21	3	.71	2.96	0.38

The first two scales encompassed statements that reflected each the factors Trust and Interaction of this study. This confirmed that these two factors are narrowly related to each other.

Firstly, Relationship was the most relevant scale, which also explained a respectable amount of variance. A typical example of this scale is item 6 “All team members feel free to express their feelings with the team”, which refers to a high-quality relationship. Therefore, this scale was interpreted as the relationship between team members, which referred to affective trust. The composition of this scale reflected the relation between Trust and Interaction as statement 6 reflect Trust. Additionally, statement 8 “The team handles conflicts in a calm, caring and healing manner” reflect the positive actions that refer to affective trust.

The statements of the second scale Task division reflected the division, performance and the responsibility of the team members with regard to the tasks. These statements predominantly referred to cognitive trust. An example of this scale is item 17 “Roles and responsibilities of individual team members are clearly understood by all members of the team”. Furthermore, this scale contained one item that related to Interaction, namely statement 28 “Information that is important for the team to have is openly shared by and with all team members”. The third scale Joint decision reflected the participation of all team members to establish decisions about the work of the team. This reflected the affective and cognitive aspects of trust of this action. Typical examples of this scale are item 4 “All

team members participate in making decisions about the work of the team” and item 29 “All individuals on this team feel free to suggest ways to improve how the team functions”. The scale Meaningful contact referred to the high-quality relationship, which refers to affective trust. An example of this scale is item 22 “I enjoy being in the company of the other members of the team. The fifth scale Open-honest was interpreted as behaviour that reflected the open interaction between team members, which referred to affective trust. A typical example is item 2 “Team members say what they really think”. Finally, the sixth scale Individual addition referred to the appreciation of the unique abilities of the individual team members. This refers to affective trust. Item 26 “I am allowed to use my unique personal skills and abilities for the benefit of the team” is a typical example of this scale. Generally, the factors above encompassed the same statements compared with the original factor loading of Stock et al. (2013). However, compared with the factor loading of Stock et al. (2013), the results of the factor analysis of this study showed more factors. This means that the new scales were more divided compared with the factors of Stock et al. (2013). In particular, the factor Communication of the TDM (Stock et al., 2013) was divided in the factors 1, 3, and 5 of the current study and Cohesion of the TDM (Stock et al., 2013) was divided in the factors 4 and 6 of the current study. The differences in factor loadings can be explained as Stock et al. (2013) used a larger sample and also used a more rigid factor analysis. Moreover, the sample of Stock et al. (2013) was composed of a more varied health care settings and more different disciplines. The results of this study suggested that the team members felt more need for appreciation and relatedness compared to the complete sample of Stock et al. (2013).

**Quantitative data: Trust.** Additional to the TDM (Stock et al., 2013), Trust was measured in both surveys by the question “Give a grade for your sense of trust within this collaboration” (scores ranging from 1 = lowest score to 10 = highest score).

**Qualitative data.** The qualitative data of both surveys provided additional insight into the responses to the TDM (Stock et al., 2013) with regard to Trust and Interaction. Moreover, the results of the qualitative measurement were compared with the results of the quantitative measurement (TDM, Stock et al., 2013) to explain the relation between the results.

Therefore, self-formulated open questions were included in the first survey to obtain qualitative data about the relevance and appearances of Interaction and Trust. Furthermore, based on the results of the qualitative data of the first survey, self-formulated open questions were included in the second survey. The distinctive questions are described below.

**Trust.** The study aimed to achieve insight in the perception of Trust of the respondents. Therefore, the team members could respond to the open question “What is your first thought with regard to trust during collaboration”. Furthermore, based on Six (2004) and Rushton et al. (2010), five open questions were added to the first survey about a) what went well and what could be improved with regard to trust during collaboration, b) whether they know their colleagues well enough to trust them and what attributes to knowing their colleagues well enough to trust them, c) examples of behavior whereby the respondents trust their colleagues or do not trust their colleagues. The two questions about what went well and what could be improved were consciously formulated at the level of collaboration. The aim was to gain insight into the relevance of factors that were not included in this study.

**Interaction.** To obtain data about the perceptions of the team members with regard to Interaction, two open questions about perceived communication were added to the first survey. These questions were a) “Please, give a positive example of trustful and positive communication” and b) “Please, give an example whereby the communication can be improved”. Furthermore, at the end of the survey, respondents were invited by means of two open questions to provide additional relevant information about collaboration and the related sense of trust.

The Focus group members agreed with the survey content and perceived the items as relevant for their team collaboration.

**Demographics.** The survey started with three questions about the department of the respondents, their total years of work experience and the years of experience in their team.



**Adaptations for the second survey.** Several appearances of Respect were responded to the open questions by 13% of the team members during the first survey. Therefore, this was perceived as a relevant feature of Interaction that influenced Trust. Furthermore, providing constructive feedback was responded to be relevant for Trust. Therefore, these items were investigated during the second survey.

**Quantitative data.** The question “Give a grade for your sense of respect during the collaboration in your team” (scores ranging from 1 = lowest score to 10 = highest score) was included to obtain quantitative data about the perception of respect.

**Qualitative data.** To obtain qualitative data about the perception of Respect the team members could respond to the open question “What is your first thought with regard to respect”. Furthermore, two open questions about the perceived respect were added. These questions were a) “Please, give a positive example of respectful behaviour during the collaboration”, b) “Please, give an example whereby the respectful behaviour can be improved”. To obtain data about the perception of providing feedback two open questions were added about a) when the respondent perceived providing feedback to a team member as easy and b) when the respondent perceived providing feedback to a team member as difficult.

**Effectiveness of the learning intervention.** The effectiveness of the learning intervention was based on the perceptions of the team members with regard to Trust and Interaction.

**Quantitative data.** To measure the effect of the learning intervention the survey included the quantitative question about Trust according to the first survey. Furthermore, the team members were invited to respond to the TDM (Stock et al., 2013).

**Qualitative data.** Firstly, the team members responded to the closed question “Did you get the impression, that something has changed in the collaboration compared to 2 months ago?” (1 = yes, a clear change, 2 = yes, a little change, 3 = no change). This question aimed to understand the real cause of the change. When the response to the question was positive the team members received an open question about what was changed. Furthermore, two closed questions about receiving and offering compliments were added. When the team members responded that they offered a compliment, they received an additional closed question about which professional they offered a compliment. Finally, an open question was included about the subject of a received compliment.

The full survey, including the statements of the TDM (Stock et al., 2013), the added statements and the open and closed questions is included in Appendix 1.

## Procedures

To recruit participants, the leaders of the departments provided information about the study and a poster in the consulting room. Furthermore, a folder was distributed to interested team members. For the first survey, the team members of all three departments were invited by e-mail to respond to the online digital survey. Parantion, a program for conducting digital surveys, was used. The survey started with brief information about the study. Informed consent of the participants was obtained. After a week, all respondents who did not (completely) respond to the survey received a reminder of the invitation by e-mail.

After ten weeks the Experimental group and the Control group were invited for the second survey. After a week, the respondents who did not (completely) respond to the survey received a reminder. Due to the low response of the Experimental group the entry deadline was extended for three weeks and a second reminder was send.

## Data analysis

To analyze the data of the surveys, various statistical calculations were performed. As mentioned above, four statements were reversed. These reversed outcomes are consistently used in the description of the results.

**Relationship between Trust and Interaction.** Subsequently, the calculation of all correlations provided insight into the relation between Trust and the scales of the TDM (Stock et al., 2013). To gain insight into the relation between Trust and Interaction, all correlations between the

scales of the TDM (Stock et al., 2013) and Trust were calculated.

**Effect of the learning intervention.** To achieve insight in the effect of the learning intervention, the differences between the Focus group and the other team members of the Experimental group were analyzed. Therefore, a Mann-Whitney test was performed to compare the means of the scales of the TDM (Stock et al., 2013) and of Trust before as well as after the implementation of the learning intervention. This provided a more detailed insight into the change of the specific interactions with regard to the different groups.

**Analysis of open questions in the first and second survey.** Based on the grounded theory (Verschuren & Doorewaard, 2007) a codebook was used to analyze the responses of the team members to the open questions of the survey. The codebook with the concepts for the analysis was composed based on the four trust enhancing actions according to Six (2004, p 85) namely Being open (for example provide information and feedback), Share influence (for example take decisions together and offer and receive help), Delegate (for example distribute responsibility) and Manage mutual expectations (about evaluation of the collaboration and differences in expectations). Furthermore, Gossip (Rushton et al., 2010) and the personal features of the persons involved, for example Benevolence and Dedication (Mayer et al., 1995; Six, 2004), were added. The analysis of the responses provided insights into the aspects that influenced Trust. A second coder verified the coding process to achieve a reliable categorization. To ensure an efficient coding, the iterative, six steps process (Hruschka, Schwartz, John, Picone-Decaro, Jenkins, & Carey, 2004) was used. Firstly, the codebook was composed based on the above-described composition. Subsequently, the answers of 11 respondents to the first three open questions were coded and aligned. Differences in agreement were related to difficulties with the interpretation of respondents' (long) answers. These answers often encompassed more than one item of the codebook. Therefore, these responses were divided at forehand into two or more codes. The second stage of the coding resulted in less agreement on the interpretation of the responses (Cohen's Kappa = .56). The analysis of this disagreement revealed that the differences in interpretation were based on different perceptions of the raters of the concepts. In particular, analysis of the comparison of the encodings indicated that the 4 actions of the collaboration (according to Six, 2004) were narrowly connected to the features (Dedication and Benevolence) of the persons involved. Based on the results of this second stage of the coding, the codebook was adapted. The third round resulted in sufficient agreements about the concepts (Cohen's Kappa = .87). The responses accorded largely with the concepts of the codebook. Some concepts for frequently provided responses were added, in particular *Respect*. Other concepts that were added for less frequently provided responses were personal relationship, duration (number of years) of the collaboration, the features of the team, for example perception of shared goals, and the role of the leader. Several responses to the open questions (45%) encompassed more than one concept of the codebook. These responses were divided at forehand into two or more codes. Furthermore, the team members did not respond to every open question. Therefore, the total number of responses (N = 1094) does not correspond with the number of respondents. Finally, the open questions of the second survey were analyzed by means of the codebook of the first survey. Based on the responses some new concepts were added. In particular, positive and negative feedback, and positive and negative reactions to feedback. The final codebook is included in Appendix 2.

## **Learning intervention of the Experimental group**

To determine the learning needs of the team members, the team leader composed a Focus group. The members of this Focus group were two nurses, two other professionals and the team leader. The educational advisor (and researcher of this study) coached the process of the intended improvement in offering meaningful compliments to enhance Trust. The Focus group met four times. During the first meeting with this Focus group (one hour) the learning needs, the learning goal, the results and related intervention of the team members were determined based on the systematic and relational design approach (Kessels & Plomp, 1999). Furthermore, the relation between the learning goal and the survey content was discussed. One week before the second meeting, the results of the first survey were sent to the Focus group members by email. During this second meeting (two hours) the

results of the first survey were briefly discussed. Subsequently, the learning intervention, offering meaningful compliments, was trained during this meeting with the Focus group members. The meaningful compliments focused on positive professional behaviour. A written instruction with communication steps to offer meaningful compliments was used. The Focus group members used this instruction during the training and afterwards during their work. Primarily, the meaningful compliments were only offered by the Focus group. The reason was that these team members did not want to focus on the negative experiences with feedback. Their assumption was that other team members would imitate their meaningful compliment behaviour, which is a positive action. This seems not to be sufficient as the Focus group consisted of a small number of people compared to the total number of team members. However, Walter and Bruch (2008) found that positive experiences between two team members can stimulate other team members to share positive experiences. Furthermore, the results of the open questions of the first survey confirmed the difficulties with providing feedback, whilst this team perceived a satisfactory relationship. This emphasized the relevance of providing respectful, constructive feedback to enhance Trust. Therefore, offering meaningful compliments by the Focus group seemed a suitable consideration. Moreover, Baker et al. (2013) emphasized the positive example of behavior of the leader. The leader of the Experimental group was a member of the Focus group. Therefore, this positive role behavior of the leader was included into the learning intervention. After a month a third meeting (one hour) was held to discuss the experiences and to provide advice about offering meaningful compliments. After this meeting, the educational advisor sometimes supported and coached the Focus group members during a short time. The fourth meeting was held two months after the third meeting. During this meeting the effect of the learning intervention was evaluated based on the perceptions of the Focus group members and the results of the second survey. Based on this evaluation the Focus group members and educational advisor agreed about new interventions of the Focus group, such as providing constructive feedback on unwished professional behaviour and spontaneous actions to show appreciation to their colleagues. Furthermore, the educational advisor stimulated to provide instructions to all team members to enhance the positive results of the meaningful compliment behaviour.

## Results

This chapter firstly presents the results of the first survey. Subsequently, the adaption of the qualitative part of the survey will be described. Finally, the results of the second survey with regard to the effect of the learning intervention are described.

### First survey

As described in the previous chapter, the responses of two teams (Experimental group and Control group) were mainly used for the results of this survey. Firstly, the general information will be presented. Subsequently, the comparison of the teams with regard to Trust and the scales of the TDM (Stock et al., 2013) will be described. Afterward, the correlations between Trust and the found scales of the TDM (Stock et al., 2013) and Gossip will be explored. After these quantitative results, the analysis of the responses to the open questions (qualitative results) will be presented. Finally, the quantitative and qualitative results will be compared.

#### Quantitative results first survey

**General information about the respondents and teams.** The two teams were composed more than 25 years ago. The work experience of the team members varies between and within the teams. The total years of work experience as well as the years of experience in the current team are described. The information is presented in Table 2 below. No significant differences were found between the Experimental group and the Control group.

Table 2. Total years of work experience and years of work experience in this team.

	Total years of experience		Work experience	
	M	SD	M	SD
Experimental group	17.44	7.57	12.26	8.83
Control group	20.38	5.16	15.26	7.10

**Differences between the teams: Trust and scales TDM (Stock et al., 2013).** Firstly, the difference between the Experimental group and the Control group concerning Trust is presented. Furthermore, the differences with regard to the scales of the TDM (Stock et al., 2013) are displayed in Table 3.

Table 3. Trust and scales TDM (Stock et al., 2013): differences between teams.

	Experimental group		Control group	
	M <sup>a</sup>	(SD)	M <sup>a</sup>	(SD) Sign.
<b>Factors</b>				
Trust <sup>a</sup>	7.44	(.79)	6.91	(1.11), $p = .022^*$
<b>Scales</b>				
1. Relationship <sup>b</sup>	2.68	(.36)	2.44	(.39), $p = .008^{**}$
2. Task division <sup>b</sup>	2.68	(.47)	2.90	(.46), $p = .048^*$
3. Joint decision <sup>b</sup>	2.49	(.32)	2.30	(.37), $p = .032^*$
4. Meaningful <sup>b</sup> contact	3.26	(.45)	2.97	(.33), $p = .003^{**}$
5. Open-honest <sup>b</sup>	2.61	(.40)	2.38	(.41), $p = .023^*$
6. Individual addition <sup>b</sup>	3.02	(.35)	2.96	(.33), $p = .469$

Note: <sup>a</sup>k = 10, <sup>b</sup>k = 4, \* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed).

Firstly, the results showed that the Experimental group scored significant higher on Trust. Furthermore, this team scored higher on the scales 1, 3, 4 and 5 compared with the Control group. These scales referred to the personal relationship and to positive interactions that are related to affective trust. In contrast, the Control group scored significant higher on the scale Task division. This scale is related to cognitive trust.

**Relationship between Trust and the TDM (Stock et al., 2013).** As mentioned in the chapter Methods, the calculations of the relationship between Trust and the scales of the TDM (Stock et al., 2013) were based on the results of three teams (Experimental group, Control group, Team 3). Table 4 provides an overview of all correlations of the total group of respondents (three teams). Furthermore, the specific correlations of the Experimental group and the Control group are presented in Table 4. These correlations are presented per group. For example, for the Experimental group, the relationship between Joint decision and Trust represents the calculated relationship based solely on the data of the Experimental group.

Table 4. Correlations between Trust and the scales of the TDM (Stock et al., 2013)

	Factor	Scales TDM				
	Trust	1	2	3	4	5
<b>Scales TDM</b>						
1. Relationship						
Total	.374**					
Experimental group	.477**					
Control group	.359*					
2. Task division						
Total	.193*	.108	1.0			
Experimental group	.130	.270				
Control group	.241	.178				
3. Joint decision						
Total	.368**	.457**	.179	1.0		
Experimental group	.527**	.492**	.398*			
Control group	.284	.620**	.260			
4. Meaningful contact						
Total	.241*	.169	.155	.134	1.0	
Experimental group	.089	.134	.344*	-.001		
Control group	-.181	.205	-.062	.254		
5. Open-honest						
Total	.297**	.551**	.141	.352**	.247**	1.0
Experimental group	.451**	.621**	.364*	.392*	.365*	
Control group	.150	.512**	.243	.481**	.244	
6. Individual addition						
Total	.384**	.270**	.287**	.205*	.327**	.210*
Experimental group	.304	.297	.409*	.268	.409*	.295
Control group	.137	.247	.109	.262	-.012	.096

Note: (N = 112, df = 110). \* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed). The correlations are presented per group. For example, for the Experimental group, the relationship between Open-honest and Meaningful contact ( $r = .365^{**}$ ) represents the calculated relationship based solely on the data of the Experimental group.

**Relationship between Trust and the scales of the TDM (Stock et al., 2013).** For the total group of respondents, the scales Relationship, Joint decision and Individual addition showed the strongest relation with Trust. These scales referred to affective trust. In contrast, the scale Open-honest was less related to Trust. However, as will be presented further in this thesis, “open and honest” was often responded to the open questions about the perceived trust and how to improve the communication in the team. Although many correlations were significant, the strength of most correlations were insufficient or weak. Therefore, it was relevant to consider the correlations between the varied scales.

*Relationship between the scales of the TDM (Stock et al., 2013).* The results for the total group of respondents showed that most of the scales were significantly related to four other scales. It became clear that Relationship showed the strongest relation with Joint decision and Open-honest. It was noteworthy that Task division had no strong relation with one of the other scales. In sum, the strongest relations were found between the scales that referred to the relational, affective aspects of trust. As many of the correlations between the varied scales were significant but weak, it was worthwhile to investigate the differences between the teams.

*Differences between the Experimental group and the Control group.* The results showed that the relations between the scales differed for the distinct teams. Firstly, in the Experimental group, the strongest relations appeared between Trust and the scales Relationship and Joint decision. Furthermore, for this team the scale Open-honest showed the strongest relationship with Trust and Relationship. Secondly, in the Control group the scale Open-honest showed a strong relation with the scale Joint decision. Furthermore, these scales showed a strong relationship with the scale Relationship. However, these scales did not show a significant and strong relationship with Trust.

In addition to the correlations between Trust and the scales of the TDM (Stock et al., 2013), a significant negative relation between Gossip and Trust was expected (Rushton et al., 2010). Therefore, these results will be presented in the next paragraph.

***Relationship between Gossip and Trust.*** To begin with, the Experimental group reported less Gossip ( $M = 2.79$ ,  $SD = .47$ ) than the Control group ( $M = 2.88$ ,  $SD = .48$ ), but this difference was not significant. However, Gossip was in the Experimental group significant negatively related to Trust ( $r(37) = -.54$ ,  $p < .001$ ). In contrast, in the Control group no significant relation between Gossip and Trust was found ( $r(32) = -.19$ ,  $p = .278$ ). Furthermore, in both teams no significant relation was found between Gossip and a) the total years of work experience and b) the experience in the current team.

The factor analysis revealed that nurses perceived Gossip as a component of Joint decision. The scale Joint decision reflects the shared decision-making based on the relationship between the team members. This suggested that Gossip appears when team members lack the opportunity to share their knowledge to establish a shared decision.

In addition to the quantitative results above, the qualitative data will provide more insight into the aspects that influenced Interaction and Trust. These results will be presented below.

**Qualitative results first survey.** Firstly, the results of the responses of the three teams to the open questions related to Trust will be presented. Subsequently, the relevant results of the distinct open questions with regard to Interaction will be explained. Finally, the relation between the responses to the open questions and the Team Development Measure (Stock et al., 2013) will be explored.

### ***Trust***

***Primarily thought.*** To start with, the primarily thought about Trust during collaboration pertained Dedication (24%). This feature was often expressed as “keeping appointments” or that team members “can count on each other”. Furthermore, 16% of the responses pertained Being open, mostly expressed as “open and honest”. Subsequently, 12% of all respondents expressed Respect as primarily thought, articulated as “get the opportunity to be yourself”. Activities with regard to Share influence appeared as 11% of the responses. Finally, trust in the competences of colleagues was responded by 10% of all respondents as the primarily thought about Trust during collaboration.

***Trust enhancing aspects.*** In particular, Being open and Respect were the most frequently responded aspects that positive influenced Trust during collaboration.

***Relationship.*** Generally, Being open (28%), Respect (11%) and Mutual contact (11%) were the most frequent articulated aspects for the respondents that attributes to knowing their colleagues well enough to trust them. The duration of the collaboration (11%) attributed to this relationship. In particular, the responses reflected the meaning of a high-quality working relationship, which refers to affective trust. The Experimental group reported the highest percentage (19%) of team members that always trust their colleagues and mentioned more examples of a high-quality relationship compared with the Control group.

*Improvement relationship.* The responses concerning the improvement of knowing each other in particular referred to Being open (32%). These responses were articulated as “more frequent open communication and feedback”. Subsequently, the responses pertained “less Gossip” (12%) and “more Respect” (11%). These aspects were expressed as “less judgment of colleagues without check” and “take account of each other”. Many of the team members who responded Being open and Respect articulated that for example discussing problems with the colleague involved can help to know their colleagues better.

*Interaction.* The respondents perceived that satisfying aspects of the Interaction were Share influence (19%) responded as “helping each other and solving problems together”, Being open (12%) by “open and honest communication and providing feedback”, and Respect (11%) by “showing interest in each other”. Providing feedback respectfully was the main response (65%) for a positive attribution towards Trust. Furthermore, the results suggested that Being open was an antecedent of other actions such as problem solving or Share influence, for example “to discuss ideas to take a joint decision”.

*Trust enhancing interaction.* Trust enhancing behavior of colleagues was related to respectful Being open. Examples were an open, honest interaction and constructive feedback on unwished professional behaviour straightforward to the colleague involved instead of Gossip. Furthermore, positive examples referred to Respect (17%) shown by listening to personal concerns, and Share influence by offering emotional support and practical help (11%). The effect of perceived Respect was that they felt the opportunity of “being yourself”.

*Trust declining interaction.* In contrast, distrust in a colleague was perceived when colleagues talked about others behind their back or did not keep a secret (Gossip; 18%), when colleagues did not show Respect (17%) by not listening or were not interested in the other person, or when colleagues did not show Dedication (11%) by not fulfilling a promise. When the colleague was not competent (10%), perception of distrust was perceived in particular when colleagues did not want to admit their incompetence. This suggests that trust in competence was more related to affective trust instead of to cognitive trust.

**Relation TDM (Stock et al., 2013) and responses to the open questions.** Firstly, the three teams unanimous responded to the open questions that a respectful, open and honest interaction between team members enhanced Trust. In particular, the results revealed that providing respectful feedback straightforward to the person involved and offering emotional support enhanced Trust. These features of interaction reflected a high-quality relationship between team members. These results confirmed the high eigenvalue of the scale Relationship of the TDM (Stock et al., 2013). In contrast, the team members often responded Gossip as the opposite of an open, honest interaction direct to the colleague involved. This referred to Being open (Six, 2004). However, the factor analysis of the TDM (Stock et al., 2013) showed that Gossip was a component of the scale Joint decision. This scale contained statements with similar actions than the trust enhancing action Share Influence (Six, 2004). However, the team members did not respond Gossip as an action that impeded Joint decision. Finally, both the results of the TDM (Stock et al., 2013) and the responses to the open questions referred mostly to affective trust.

## Second survey

After ten weeks the Experimental group and the Control group were invited for the second survey. No changing of team members occurred. As described in the chapter Method, for the Control group, only the responses with regard to the qualitative measurement were included in the results of this second survey. Firstly, the general information about the Experimental group will be presented. Subsequently, the results of the quantitative data of the Experimental group will be compared with the first survey. Next, the effect of the learning intervention and the perceived change will be regarded. Subsequently, the results of the open questions are presented. Finally, the relation between the responses to the open questions and the Team Development Measure (Stock et al., 2013) will be explored.

## Quantitative results second survey

**General information about the respondents and teams.** Despite the low number of respondents of the Experimental team, no significant differences between the features and responses of the team members were found for the group who responded solely to the second survey and to the group who responded to both surveys. Furthermore, the team members who solely responded to the first survey scored slightly higher on most of the scales and statements compared with their colleagues who responded to both surveys. However, significant differences were only found in two statements. Firstly, statement 8 about carefully handling conflicts was significantly higher rated by the respondents who solely responded to the first survey ( $M = 2.81$ ,  $SD .51$ ) than the team members who responded to both surveys ( $M = 2.44$ ,  $SD .51$ ),  $t(37) = 2.22$ ,  $p = .032$ . Secondly, statement 20 about team goals above personal goals was also significantly higher rated by the respondents who solely responded to the first survey ( $M = 2.85$ ,  $SD .37$ ) than the team members who responded to both surveys ( $M = 2.53$ ,  $SD .51$ ),  $t(37) = 2.21$ ,  $p = .034$ .

**Differences between Focus group and other team members: Trust, Respect and scales of the TDM (Stock et al., 2013).** To measure the effectiveness of the learning intervention the differences between the first and second survey was measured in the Experimental group. In particular, the differences between the Focus group and the other team members were considered. The comparison of the first and second survey with regard to Trust, Respect and the scales of the TDM (Stock et al., 2013) is displayed below in Table 5.

Table 5. Trust, Respect and scales TDM (Stock et al., 2013): Effect of the learning intervention.

	First survey			Second survey		
	Focus group M (SD)	Other team members M (SD) Sign.		Focus group M (SD)	Other team members M (SD) Sign.	
<b>Factors</b>						
Trust <sup>a</sup>	7.00 (.00) <sup>c</sup>	7.50 (.83), $p = .152$		7.20 (.84)	7.00 (1.33), $p = .755$	
Respect <sup>a</sup>	Not measured	Not measured		7.20 (.45)	7.19 (1.31), $p = .801$	
<b>Scales TDM</b>						
1. Relation <sup>b</sup>	2.52 (.41)	2.71 (.35), $p = .269$		2.80 (.49)	2.69 (.39), $p = .618$	
2. Task division <sup>b</sup>	2.45 (.54)	2.72 (.38), $p = .173$		2.90 (.38)	2.41 (.30), $p = .289$	
3. Joint decision <sup>b</sup>	2.25 (.31)	2.55 (.30), $p = .044^*$		2.60 (.38)	2.51 (.30), $p = .603$	
4. Meaningful contact <sup>b</sup>	3.30 (.45)	3.25 (.46), $p = .821$		3.20 (.45)	3.21 (.40), $p = .978$	
5. Open-honest <sup>b</sup>	2.40 (.43)	2.65 (.39), $p = .202$		2.73 (.43)	2.61 (.36), $p = .518$	
6. Individual addition <sup>b</sup>	2.80 (.30)	3.05 (.35), $p = .137$		3.00 (.47)	3.00 (.24), $p = 1.000$	

Note: <sup>a</sup>k = 10, <sup>b</sup>k = 4, <sup>c</sup> all Focus group members responded the same score,  
\* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed).

The results of the Focus group with regard to Trust did not show a normal distribution in the first survey. Therefore, to calculate the difference for this factor between the Focus group and the other team members a non-parametric test (Mann-Whitney) was used.

Firstly, the results of the first survey showed that the Focus group scored significant lower on the scale Joint decision compared with the other team members of the Experimental group. Furthermore, the results of the second survey showed that the mean scores of Trust and of the scales of the TDM (Stock et al., 2013) generally increased for the Focus group and remained relatively similar for the other team members compared with the first survey. However, no significant differences between the both groups were found for the second survey. Finally, no significant differences between the first and the second survey were found for the Focus group and for the other team members each.



*Perception Focus group.* The Focus group members did not recognize the decrease of Trust and the scores of the TDM (Stock et al., 2013) during the second survey as they received positive reactions of the other team members with regard to the team collaboration. During the Focus group meeting they presented several examples of positive changes. However, only 37% of the respondents to the survey perceived a positive change after 10 weeks.

*Relationship between Trust, Respect and the TDM (Stock et al., 2013).* The calculations were based on the results of the Experimental team. Table 6 provides an overview of all correlations of this team. To be able to compare the correlations, the results of the first and the second survey are displayed.

*Table 6. Correlations between Trust, Respect and scales TDM (Stock et al., 2013) of the Experimental group: comparison first and second survey.*

	Factors		Scales TDM				
	Trust	Respect	1	2	3	4	5
<b>Factors</b>							
Respect							
First survey	-						
Second survey	.834**	1.0					
<b>Scales TDM</b>							
1. Relationship							
First survey	.477**	-	1.0				
Second survey	.499*	.250	1.0				
2. Task division							
First survey	.130	-	.270	1.0			
Second survey	.549**	.567**	.216	1.0			
3. Joint decision							
First survey	.527**		.492**	.398*	1.0		
Second survey	.413	.321	.706**	.430*	1.0		
4. Meaningful contact							
First survey	.089	-	.134	.344*	-.001	1.0	
Second survey	-.274	-.275	.139	-.235	.229	1.0	
5. Open-honest							
First survey	.451**	-	.621**	.364*	.392*	.365*	1.0
Second survey	.175	.223	.473*	.441*	.768**	.260	1.0
6. Individual addition							
First survey	.304	-	.297	.414*	.289	.409*	.295
Second survey	.258	.139	.189	.411	.350	.206	.295

*Note:* (N = 63, df = 61). \* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed). The correlations are presented per survey. For example, for the second survey, the relationship between Joint decision and Relationship ( $r = .706^{**}$ ) represents the calculated relationship based solely on the data of the second survey.

*Relationship between Trust, Respect and the scales of the TDM (Stock et al., 2013).* Compared with the first survey, some differences in relations between Trust and the scales of the TDM (Stock et al. 2013) were relevant for the Experimental team. Firstly, the relation between the scale Relationship and Trust remained relative equal. The enhanced relation between the scale Task division and Trust was noteworthy. More detailed, all four statements of this scale about task division and sharing relevant knowledge showed a strengthened positive relation with Trust. In contrast, the scales Joint decision, Meaningful contact, Open-honest and Individual addition showed less relation with Trust. This suggested that the affective aspects of trust decreased and the cognitive aspects of trust increased compared with the first survey. Furthermore, a significant and strong relationship was found between Respect and Trust. With regard to Trust and Respect the difference between the scales Relationship

and Individual addition were noteworthy. Therefore, it was relevant to consider the correlations between the varied scales.

*Relationship between the scales of the TDM (Stock et al., 2013).* The results for the second survey showed that most of the scales were significantly related to four other scales. It became clear that Joint decision showed a strengthened relation with Relationship and Open-honest. In sum, the strongest relations remained between the scales that referred to affective trust. However, the strengthened relationship between Task division and both Trust and Respect, combined with the negative relation between Meaningful contact and other scales, suggested that the cognitive aspect of trust was enhanced.

*Relationship between Gossip, Trust and Respect.* Compared with the first survey, the perception of Gossip was in the Experimental group significantly and negatively related to Trust ( $r(20) = -.460, p = .031$ ) although this relationship was weaker than during the first survey. Furthermore, the relationship between Gossip and Respect was not significant ( $r(20) = -.335, p = .127$ ).

**Qualitative results second survey. Effect of the learning intervention.** Based on the need of the Experimental group, the Focus group started with providing meaningful compliments. Therefore, the changes with respect to the meaningful compliment behavior and perceptions of improvement will be considered to measure the effects of the learning intervention. In particular, the differences between the Focus group members and the other team members are considered. Furthermore, the differences between the Experimental group and the Control group will be presented.

**Meaningful compliments.** All respondents of the Experimental group received a compliment, whereby 27% often and 73% sometimes received a compliment. In particular, the Focus group members showed that they significantly more frequently offered a compliment to a colleague with another profession,  $t(20) = 2.46, p = .023$ . Furthermore, the total Experimental group received significant more often a compliment compared with the Control group,  $t(50) = 2.67, p = .010$ . Moreover, the Experimental group offered significant more compliments compared with the Control group,  $t(50) = 2.80, p = .007$ . The responses of the Experimental group and the Control group to the open questions added insight into the subject of the compliment. Most respondents (49%) expressed that they received a compliment about their competence, in particular specific care for patients. Furthermore, they received generally articulated compliments about their manner of collaboration (12%). Fewer compliments are received about Share influence (8%) and Dedication (7%). Solely 2% of the received compliments pertained the appearance of a person. This implied that virtually all compliments were perceived as meaningful compliments, also for the Control group who did not receive an instruction about offering meaningful compliments. The Focus group members expressed that colleagues sometimes were positively amazed after receiving a meaningful compliment and did not know how to react.

**Feedback.** The Focus group members perceived it more easy to provide constructive feedback on unwished professional behaviour compared with the other team members,  $t(20) = 2.13, p = .045$ . This was explained as the Focus group members expressed that they view a meaningful compliment as an example of constructive feedback on positive professional behaviour. Moreover, this group tried to provide constructive feedback on unwished professional behaviour. The Focus group members expressed that they perceived it more easy to provide constructive feedback on unwished professional behaviour as this could be offered in balance with meaningful compliments.

The results revealed that the learning intervention showed a significant effect on the meaningful compliment offering behavior of the Focus team members of the Experimental group. However, this behavior did not lead to a significant positive effect on Trust and Interaction for the Focus group and the other team members.

**Perception of change.** These results of the responses are based on a 3-points Likert scale (1 = yes, a marked change, 2 = yes, a little change, 3 = no change).

Ten respondents of the Experimental group (41.7%) perceived a change in the collaboration compared with ten weeks earlier. Nine of them responded that the change was positive. They perceived that team members more often helped each other, and that a more pleasant atmosphere and

more sense of engagement to each other was established. One respondent perceived a little negative change compared with the first survey and expressed the disquiet she felt. Furthermore, 14 team members did not perceive a change. The Focus group members experienced significant more improvement of the collaboration than the other team members,  $t(22) = 3.74$ ,  $p = .021$ . This can be explained as this Focus group members expressed to be more aware of the change compared with the other team members.

**Qualitative results second survey: responses open questions.** Firstly, the results of the responses to the open questions related to Respect will be presented. Subsequently, the relevant results of the distinct open questions with regard to Feedback will be explained.

**Respect.** The response to the open question “What is your first thought with regard to respect” pertained actions with regard to appreciation of the individual (61% of the responses). This feature was often expressed as “listening to each other”, “appreciation of the unique personal characteristics of a person” or the “opportunity of being yourself”. Furthermore, 9% of the responses were related to the trust in the competences of the colleagues and 5% of the responses to Being open. The positive examples regarding Respect (46%) included actions that referred to Respect according to Antoniazzi (2011). Examples of this positive behavior were listening sincerely, personal attention and appreciation of different opinions. Subsequently, actions regarding Being open (21%) and Share influence (18%) were mentioned. Positive behavior regarding Being open included compliments, respectful constructive feedback and discuss positively to find solutions for problems. Fruitful examples of Share influence were offering help and emotional support.

**Disrespect.** The main examples about disrespect (37%) pertained not listening or not being involved during team decision, which elicited the sense of not be taken seriously. Furthermore, no Respect was mostly related to not Being open (10%) and to no Share influence (14%).

**Feedback.** Providing feedback depended on the reaction of the feedback receiver. When the latter reacts at a positive manner to the feedback, it was more easily to provide feedback. In contrast, the respondents perceived it difficult to provide feedback when the expected reaction of the feedback receiver would be negative, which was related to the individual involved. Furthermore, providing feedback about concrete behavior instead of personal characteristics was more easily (16%). However, providing feedback about unwished professional behaviour of the feedback receiver was perceived as difficult. Finally, the quality of the relationship determined the propensity to offer feedback. Based on the results of the second survey the Focus group members expressed that some team members always will express negative thoughts, which is difficult to change. They relate this to the mindset of the team members. The focus group members tended to accept the negative behavior of these team members. They gave nuance to the relevance of this behaviour for the collaboration of the team by underscoring that only a few team members showed this negative behavior.

**Relation between open questions and TDM (Stock et al., 2013).** Generally, the responses to the open questions about Respect concerned appreciation for the unique personal characteristics, which evoked a sense of being taken serious. This is reflected in the strong relationship between Trust and Respect of the quantitative data. Respect referred to trust enhancing actions (Six, 2004) to improve the quality of the relationship between team members. However, the relationship between Respect and the scale Relationship of the TDM (Stock et al., 2013) was weak and not significant in the second survey. The calculations of the correlations in particular showed the shift to Task division, which is the cognitive aspect of trust. However, the division of tasks was hardly responded to the open questions in the first and second survey.

## Conclusion and discussion

The main goal of this study was to measure the effectiveness of an implemented and performed learning intervention, which intended to enhance the interpersonal trust during collaboration in a nursing team. Firstly, this chapter elaborates the relevant conclusions based on the research questions and the used instruments, whereafter these conclusions are discussed. Subsequently, the limitations and future research are described. Finally, practical implications are discussed.

### Conclusion

To be able to respond to the main research question, first the conclusions on the two subsequent research questions will be described.

For the first subsequent research question *“How do the nursing staff members of Gelre Ziekenhuizen perceive the interpersonal trust during their collaboration in the team?”* it can be concluded that the members of the two teams were sufficiently satisfied about the Trust during their collaboration. Based on the results of both surveys it can be concluded that affective trust determines Trust in a higher degree than cognitive trust does. The results confirm the findings of McAllister (1995), who found that affective trust is the most relevant determinant of a trustful culture. Conjecture 1 predicted that affective trust was more frequently related to Trust than cognitive trust. Affective trust is particularly related to feeling free to express emotions. This sense of sharing emotions is related to a high-quality relationship (Dutton & Heaphy, 2003). This explains that a high-quality working relationship is the basis for Trust. To conclude, Conjecture 1 is supported.

The insights gained regarding the second subsequent research question *“Which factors influence the interpersonal trust of these team members during their collaboration?”* disclose that Trust is strongly related to Interaction. For Trust, Relationship and Respect are the most relevant features. For Interaction, Being open and Gossip are the features that determine the level of Trust. In particular, for Being open, openly discussing work related subjects and providing constructive feedback are actions that positively influence Trust. The relevant features for Trust and Interaction will be explored more in detail below.

Firstly, Relationship was the most relevant scale of the TDM (Stock et al., 2013) that determined Trust. However, this scale did not show the strongest relation with Trust. Instead, this scale seemed to be a prerequisite for the scales that reflect affective trust. These findings are in line with Dutton and Heaphy (2003) who pointed out that colleagues share their emotions when they perceive a high-quality relationship. Furthermore, it became clear that in the Experimental group the relation between Relationship and Trust remained stable despite the shift of the affective aspects of trust to the cognitive aspects of trust. This finding is in line with McAllister (1995), who found that actions based on affective trust maintain a high-quality working relationship in a higher degree than the actions related to cognitive aspects of trust. This implies that cognitive trust does not influence the established working relationship in a high degree as it does with affective trust. It is noteworthy that Schoorman, Mayer, and Davis (2007) pointed out that the literature uncritically supported their view that relationships are the basis for trust. However, previously the results of Six (2004) empirically confirmed the relation between collegial relationships and trust. Additionally, the results of this study confirm this relation.

Secondly, the responses revealed that respect by appreciation of the individual characteristics is relevant for Trust. This was for example shown by providing constructive feedback and by positive discussions based on different opinions. For this study, *Respect* is defined as showing appreciation for the other as an individual with unique personal characteristics, taking into account the way of life, opinion, and abilities of that person (Da Costa, 1995; Grover, 2013). Six (2004) indicated that Respect is a prerequisite for Being open. Respect appears in diverse actions such as listening, no gossip, and no disapproval of a controversial opinion of a team member (Antoniazzi, 2011). According to Antoniazzi (2011), Respect is essential for the practice of nurses and is a very personal experience. However, disrespect is in the profession of nurses often recognized when a heavy workload and a stressful environment cause inefficient communication (Antoniazzi, 2011). The results with regard to Respect were in line with the findings of Antoniazzi (2011), especially when team members established a

high-quality relationship. In a high-quality relationship team members feel respected, which enhances trust (Dutton & Heaphy, 2003). This emphasizes the meaningful role of Relationship for Trust.

Thirdly, the current study confirms that the positive actions of Being open are relevant. In particular, openly discussing work-related subjects is relevant for Trust. Moreover, providing straightforward and constructive feedback to the person involved appeared to be a relevant manner of Interaction that positively influences Trust. These results are consistent with the results of Luna-Reyes et al. (2004). The current study revealed that it is difficult to provide constructive feedback on undesirable professional behaviour of the feedback receiver as well as when a negative reaction of the feedback receiver is expected. This explains why nursing team members hesitate to provide feedback and sometimes even provide unconstructive feedback. It is confirmed that feedback responses depend on the manner that the feedback is provided (Baker et al., 2013), as well as on the way a compliment is offered (Aakhus & Aldrich, 2002). To conclude, Being open is the most relevant action that positively influences Trust. Furthermore, Share influence was perceived as relevant for Trust. These findings are in line with the results of Six (2004) who found that these two types of trust enhancing actions were the most relevant factors that influence Trust. Finally, the scales of the TDM (Stock et al., 2013) that contained actions, namely Relationship, Task division, Joint decision, Open-honest and Individual attribution, were positively related to Trust. Conjecture 2 predicted that the trust enhancing actions are positively related to Trust. Based on the findings above it can be concluded that Conjecture 2 is largely supported. In particular, the manner of providing feedback and the reaction on feedback determined if team members perceived this part of Being open as positive. Furthermore, Joint decision and Share influence, which partially contained similar actions, were relevant for Trust.

Finally, the responses revealed that when nursing team members perceive Gossip instead of Being open, a negative relation between Gossip and Trust is found. Therefore, Conjecture 3 “The perception of Gossip in the team is negatively related to Trust” is supported. In contrast with the findings of Rushton et al. (2010), Gossip is not significantly related to the number of years that a team member performs her profession. Instead, Gossip related more negatively to Trust when a stronger relationship between Trust and Relationship appeared. This is explained by the fact that colleagues feel safe to express their emotions in a high-quality relationship (Dutton & Heaphy, 2003). Therefore, Gossip appears less when a high-quality relationship is established, but when it appears, Gossip shows a stronger negative influence on Trust.

In sum, an open Interaction enhances Trust, which in turn improves a high-quality working relationship. The opposite is also true as a high-quality relationship is the basis for Trust, which is relevant for open Interaction. Furthermore, Gossip is a trust braking action, which diminishes Trust and therewith the high-quality relationship between team members.

Based on the conclusions of the subsequent research questions, the answer to the main research question “*What is the effect of the used learning intervention that aims to enhance the interpersonal trust during collaboration in a nursing team of Gelre Ziekenhuizen?*” could develop as follows. The positive effect of the learning intervention is in the Focus group significant at the level of meaningful compliment and feedback behaviour. However, the positive results at the level of Interaction and Trust were not significant. In contrast, the other team members of the Experimental group showed approximately similar scores for Interaction and declined scores for Trust. The difference in effect can be caused by the awareness of the Focus group members with regard to their behaviour and the responses of the feedback receivers. This awareness of the learners is in line with the findings of Jellema, Visscher, and Scheerens (2006), who found that co-workers who are involved in the training (as a trainee or rater) are more aware of the changed work behaviour of the trained colleagues than those who are not involved. Furthermore, Jellema et al. (2006) found that it is difficult to determine the effectiveness of a learning intervention when a rater has little contact with the learner. Due to irregular shifts, it is conceivable that the other team members of the Experimental group did not notice the changed behaviour of the Focus group members. Moreover, possibly the other team members felt more need to interact and perceived a lack of time for establishing such Interaction due to the heavy workload. Therefore, the dissatisfaction about the decreased opportunities to interact possibly elucidated the decline of Trust during the second survey. Roth and Markova (2012) also found that reserving time to discuss problems at several moments during the day is essential for sustainable changes and work satisfaction of health care team members. Finally, the different scores

can be caused by the fact that trust remains a dynamic phenomenon (Goudge & Gilson, 2005; Luna-Reyes et al., 2004). This means that unconscious individual processes influence the degree of trust (Six, 2004). To conclude, the results confirmed that not only Interaction and Relationship influence Trust, but also organizational factors like workload and time. In sum, Conjecture 4a “The learning intervention will positively influence Interaction and the related Trust” was partly confirmed, as solely the Focus group showed a positive influence of the intervention on Interaction and Trust. As expected, according to Conjecture 4b, the effect of the learning intervention had no significant effect on Trust and Interaction within a 10 weeks period. Therefore, Conjecture 4b was confirmed. Although the effectiveness of providing meaningful compliments is not confirmed statistically during this study, it cannot be concluded that this intervention was irrelevant. Mills et al. (2013) confirmed this when stating that team members share positive experiences over time. This implies that the effects of providing meaningful compliments may be observed over a longer period. The Experimental group as well as the Control group perceived the meaningful compliments as constructive feedback on positive professional behaviour. Therefore, starting with offering meaningful compliments was a suitable learning intervention to improve the feedback behaviour in a nursing team. However, no literature is found about the required time span for finding a significant positive effect. Moreover, the influence of work pressure on Interaction and Trust is unclear. This confirms the difficulties when investigating trust, (Goudge & Gilson, 2005) as the role of different causes on trust is unclear.

For this study, two instruments for obtaining quantitative and qualitative data were used. The data analysis confirmed the validity and reliability of the TDM (Stock et al., 2013). Therefore, this instrument is suitable to obtain quantitative data on Trust and Interaction. The used factor analysis provided the opportunity to make a clear distinction between the concepts of Trust and Interaction despite the strong relationship between these concepts. Moreover, the varied scales showed the difference between the affective and cognitive aspects of trust. Furthermore, the open questions provided valuable qualitative data to interpret the similarities and differences of the responses to the questionnaire. In view of the special role of the Focus group, the team members provided worthwhile additional information about the results of the surveys.

## Discussion

The results of this study provide new insights into the relationships between Trust and Interaction of nursing team members, and the influence of offering meaningful compliments. However, some of these findings are subject for discussion. These subjects will be explored below.

Firstly, the results of this study confirmed that the two pillars of collaboration, namely Interaction and Trust, strongly and positively relate to each other. In particular, to perceive Trust, respondents frequently refer to trust enhancing actions. Therefore, it is difficult to make a clear distinction between Interaction and Trust. In particular, Relationship and Respect are two relevant features of Trust. Furthermore, for Interaction, Being open revealed to be the most relevant type of trust enhancing action and seems to be a prerequisite for the other three types of actions of Six (2004). Subsequently, Share influence enhances Trust. It is noteworthy, that the type of actions Delegate and Manage expectations were hardly responded to the open questions. This can be explained as Delegate contains actions that refer to shared responsibility. As nurses are mostly responsible for their own assigned patients, nurses rarely perceive shared responsibility with their colleagues. Furthermore, Manage expectations requires reflection about the working relationship (Six, 2004). Due to workload, it is conceivable that nurses possibly hardly perceive the opportunity to reflect on their work. In contrast, Gossip is a relevant trust declining action of Interaction. Based on these results, a revised model is proposed in Figure 3. Compared with Figure 1, the strong relationship between Interaction and Trust remains equal in Figure 3. For Interaction, the most relevant trust influencing actions, namely Being open and Gossip, are added. Furthermore, the two relevant features of Trust, namely Respect and Relationship are added to Figure 3.

### *Revised conceptual model*

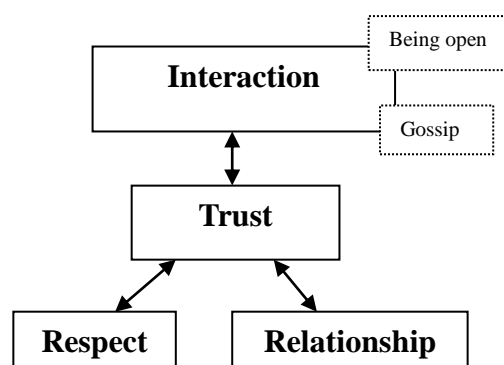


Figure 3: Relation between Trust, Interaction, and related factors.

Secondly, the team members perceived sufficient Trust. However, it is unclear to what extent these grades are sufficient for the desired level of effective collaboration. Therefore, it is relevant to relate the grade of Trust to results of (effective) collaboration.

Thirdly, the respondents perceived the provision of straightforward and constructive feedback on unwished professional behaviour to the person involved as a trust enhancing action. However, they likewise expressed their hesitancy with providing such feedback. This stresses the need for more focus on (providing and) receiving a meaningful compliment or constructive feedback on unwished professional behaviour for all team members and therefore the need to investigate the cause of the difficulties with feedback responses.

Furthermore, more frequently than expected from the literature, Respect was responded to be relevant for Trust. Therefore, questions about this concept were added to the second survey. It is recognized that respectful treatment of colleagues is relevant independent of their profession (Da Costa, 1995; Grover, 2013). Antoniazzi (2011) found that disrespect is recognized when heavy workload and a stressful environment cause inefficient communication. This can partly be explained as a lack of time, which impedes sincere listening. However, the results of this study show that a high-quality relationship is relevant for the perception of Respect. This evokes the question how and to what extent workload and environmental factors influence communication and the relationships between the nursing team members.

In the statements of the scale Joint decision, Gossip is negatively related to the individual attribution of team members and their feelings of freely providing suggestions for improving team performance. In contrast, the responses to the open questions revealed that Gossip appeared instead of Being open, which refers to the interaction between team members. Bargagliotti (2012) recognized that trust and a high-quality relationship are essential to share knowledge freely and establish shared decisions. To establish these shared decisions, nurses need to experience autonomy (Bargagliotti, 2012). Therefore, it remains unclear whether Gossip is solely related to Being open based on a high-quality relationship or whether Gossip appears more frequently when team members perceive a lack of influence on their work.

### **Limitations and future research**

Despite a careful design of the study, some limitations have been encountered. Furthermore, some results of this study ask for further research.

Firstly, the generalizability of this study is limited as the results present the perception of Interaction and Trust of the team members of three teams in one hospital. Moreover, the learning intervention was solely implemented in one experimental group. Another limitation was the time line of the survey. Due to the planning of this study, solely a positive effect of the learning intervention was found at the level of behavior in terms of offering meaningful compliments and feedback. In particular, when the effectiveness of a learning intervention needs to be measured, the timeline of the study needs to be long enough for observing such effects. To measure the effectiveness of the learning

intervention at the level of Trust, the advice is to iterate the survey after a year. This iteration can likewise provide more insight into the dynamics of Trust. To gain insight into other factors that influence Trust, the survey also needs to contain (open) questions about the contribution of relevant other factors.

Based on the results of this study, offering and receiving meaningful compliments and constructive feedback on unwished professional behaviour needs further investigation due to the ambivalent role of feedback. One of the subjects is to obtain insight into the underlying thoughts of the team members that impede the provision and reception of constructive feedback on professional behaviour. Furthermore, it remains unclear to what extent Gossip is related to Being open and to Joint influence. Further research can provide insight into the role of Gossip for Interaction and Trust of nursing team members. One of the subjects of investigation is the relationships between the role of Gossip, Trust, and autonomy, as autonomy is relevant for shared decision making (Bargagliotti, 2012), which refers to Joint influence.

Finally, the relationships between the team members seemed to influence their Interaction and subsequently Respect. A high-quality relationship is relevant for trust during collaboration (Dutton & Heaphy, 2003). This implies that a high-quality working relationship and Respect are relevant regardless a particular profession or organization. However, nurses perceive the high-quality relationship as motivating (Carmeli et al., 2009) and in the profession of nurses disrespect is often recognized due to workload (Antoniazzi, 2011). Therefore, investigation of the causes of perceived workload is relevant. Furthermore, investigation of other factors than workload, for example merging of departments and teams due to cost reduction, on the working relationship of nurses is relevant.

## **Practical implications**

The results of the study lead to implications for the day-to-day practice of nursing teams, despite the fact that this study was conducted in just one hospital.

Firstly, this study confirmed that a respectful, open interaction positively influences trust. Furthermore, the results highlighted that a high-quality relationship between team members is indispensable for an open interaction and trust. Therefore, it is relevant to focus on trust enhancing actions and reduce Gossip to enhance Trust, which in turn is needed to establish the desired high-quality working relationship. This high-quality working relationship is needed for learning (Carmeli et al., 2009; Eraut, 2004), problem solving and innovation (Kessels & Verdonschot, 2012). Therefore, it is relevant to continuously stimulate the interaction between team members to improve the learning culture of the team.

This study revealed that stimulating an open communication about work-related subjects between team members could improve Trust. Therefore, the individual team members need to be aware of their role in establishing an open communication. Evaluation of the effectiveness of their interaction can help to improve this interaction. Furthermore, the advice is to be aware of the influence of workload on the interaction of team members. Hence, it is relevant to provide opportunities to discuss work-related subjects, for example during regular handovers in the meeting room (Torunn Bjørk et al., 2013).

This study identified that providing constructive feedback is a relevant manner of Interaction to enhance Trust, but simultaneously it is the most difficult action. Offering meaningful compliments is relevant, as it has proven to be a manner to create an open interaction between team members. In particular, offering meaningful compliments, which focus on positive professional behaviour, showed to be a relevant antecedent of constructive feedback on unwished professional behaviour. Therefore, to amplify the positive behaviour of the whole team it is a valuable approach to instruct them on how to offer meaningful compliments. This compliment behaviour of all team members can provoke positive reactions and subsequently diminish the fear for providing and receiving constructive feedback. The nurturing role of the leader is required to support this positive behavior (Torunn Bjørk, et al., 2013).



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# Appendix 1. Team Development Measure

The team Development Measure (Stock et al., 2013) and related questions

## De Team Ontwikkeling Vragenlijst

Deze vragenlijst gaat over de kenmerken van je team.

Er zijn geen goede of foute antwoorden; het gaat om jouw eigen beleving. De gegevens van deze enquête worden volledig anoniem verwerkt.

### Algemene vragen:

- Op welke afdeling werk je?
- Hoeveel jaren werkervaring (voor studenten: 1 leerjaar telt als 1 jaar werkervaring)
- Hoeveel jaar werk je in dit team?
- Geef een cijfer voor jouw tevredenheid over de samenwerking binnen je team
- Geef een cijfer voor jouw gevoel van vertrouwen binnen deze samenwerking

### Open vragen

*Voorafgaand aan stellingen Team Ontwikkeling Vragenlijst:*


- Waar denk je als eerste aan bij 'vertrouwen' tijdens samenwerken?

### Stellingen :

Geef bij de stellingen aan in welke mate je het (sterk) oneens – (helemaal) mee eens bent met elke uitspraak zoals dit geldt voor uw team op dit moment.

Er zijn vier antwoordmogelijkheden:

- Sterk mee oneens (1)
- Oneens (2)
- Eens (3)
- Sterk mee eens (4)



The Team Development Measure ®	Team Ontwikkeling Vragenlijst
1. Team members say what they really mean.	1. Teamleden zeggen wat ze werkelijk bedoelen.
2. Team members say what they really think.	2. Teamleden zeggen wat ze werkelijk denken.
3. team members talk about other team members behind their back.	3. Teamleden praten over andere teamleden achter hun rug om.
4. All team members participate in making decisions about the work of the team.	4. Alle teamleden dragen bij aan het nemen van beslissingen over het werk van het team.
5. All team members feel free to share their ideas with the team.	5. Alle teamleden voelen zich vrij om hun ideeën te delen met het team
6. All team members feel free to express their feelings with the team.	6. Alle teamleden voelen zich vrij om hun gevoelens te uiten in het team
7. The team practices tolerance, flexibility, and appreciation of the unique differences between team members	7. Het team toont tolerantie, flexibiliteit en waardering van de unieke verschillen tussen teamleden
8. the team handles conflicts in a calm, caring and healing manner.	8. Het team gaat op een rustige, zorgzame en opbouwende manier om met conflicten.
9. Regardless of the topic, communication between the people on this team is direct, truthful, respectful, and positive.	9. Ongeacht het onderwerp is de communicatie tussen de mensen van dit team direct, eerlijk, respectvol en positief. <ul style="list-style-type: none"><li>– Geef een positief voorbeeld van deze communicatie</li><li>– Geef een voorbeeld waarbij deze communicatie verbeterd kan worden.</li></ul>
10. The team openly discusses decisions that affect the work of the team before they are made.	10. Het team bespreekt openlijk beslissingen die invloed hebben op het werk van het team, voordat ze worden genomen.

11. In this team, members support, nurture, and care for each other.	11. In dit team ondersteunen men elkaar en kijken de leden om naar elkaar.
12. The team has agreed upon clear criteria for evaluating the outcomes of the team's effort.	12. Het team heeft duidelijke criteria om de uitkomsten van de teaminspanning te evalueren.
13. As a team we come up with creative solutions to problems.	13. Als team komen we met creatieve oplossingen voor problemen.
14. In the team there is more of a WE feeling than a ME feeling.	14. In het team heerst meer een WIJ dan een MIJ gevoel.
15. There is confusion about what the work is that the team should be doing.	15. Er is verwarring over welk werk het team zou moeten doen.
16. There is confusion about how to accomplish the work of the team.	16. Er is verwarring over hoe het team het werk hoort uit te voeren.
17. Roles and responsibilities of individual team members are clearly understood by all members of the team.	17. Alle leden van het team begrijpen de taken en verantwoordelijkheden van de individuele teamleden.
18. Team members place the accomplishments of the team ahead of their own individual accomplishments.	18. Teamleden plaatsen de prestaties van het team boven hun eigen individuele prestaties.
19. The goals of the team are clearly understood by all team members	19. Alle teamleden hebben de doelstellingen van het team duidelijk begrepen.
20. Team members define the goals of the team as more important than their own personal goals.	20. Teamleden vinden de doelen van het team als belangrijker dan hun eigen persoonlijke doelen.
21. I am happy with the outcomes of the team's work so far.	21. Ik ben tevreden met de resultaten die het team tot nu toe heeft behaald.
22. I enjoy being in the company of the other members of the team.	22. Ik vind het prettig om in gezelschap van de andere teamleden te zijn.
23. This team is a personally meaningful experience for me.	23. Dit team is voor mij persoonlijk een betekenisvolle ervaring.
24. I have a clear understanding of what other team members expect of me as a team member.	24. Ik heb duidelijk inzicht in wat andere teamleden van mij verwachten als lid van het team.
25. The work I do on this team is valued by the other team members.	25. Het werk dat ik doe in dit team wordt gewaardeerd door de andere teamleden.
26. I am allowed to use my unique personal skills and abilities for the benefit of the team.	26. Ik mag mijn unieke persoonlijke vaardigheden en bekwaamheden gebruiken ten behoeve van het team.
27. Some members of this team resist being led.	27. Sommige leden van dit team tonen weerstand wanneer ze leiding ontvangen.
28. Information that is important for the team to have is openly shared by and with all team members.	28. Informatie die belangrijk is voor het team wordt openlijk gedeeld door en met alle teamleden.
29. All individuals on this team feel free to suggest ways to improve how the team functions.	29. Alle personen in dit team voelen zich vrij om suggesties te doen voor het verbeteren van het functioneren van het team.
30. When team problems arise the team openly explores options to solve them.	30. Wanneer er teamproblemen zijn, dan zoekt het team op een open manier naar mogelijkheden om ze op te lossen.
31. On this team, the person who takes the lead differs depending on who is best suited for the task.	31. Bij dit team wisselt de persoon die de leiding neemt, afhankelijk van wie het meest geschikt is voor de taak.
32 t/m 35: toegevoegde vragen	32. Fouten worden gezien als mogelijkheid om te leren.
	33. In ons team worden fouten makkelijk toegegeven.

	34. Ik zeg altijd wat ik denk.
	35. Ik ben altijd bereid om een fout, als ik die gemaakt heb, toe te geven.

### Open vragen 1<sup>e</sup> vragenlijst

Aansluitend aan stellingen TOV:

- 9a. Geef een positief voorbeeld van deze communicatie
- 9b. Geef een voorbeeld waarbij deze communicatie verbeterd kan worden
- Ken je je collega goed genoeg om haar te kunnen vertrouwen? Wat draagt daar aan bij?
- Als je kijkt naar het vertrouwen bij de samenwerking binnen je team: wat gaat er goed,
- Als je kijkt naar het vertrouwen bij de samenwerking binnen je team: wat kan verbeterd worden?
- Denk aan een voorbeeld van een collega, die je vertrouwt: hoe komt het, dat je deze persoon vertrouwt? Geef een voorbeeld van gedrag of van een situatie
- Wanneer voel je geen vertrouwen bij een collega: geef een voorbeeld van gedrag of van een situatie.

### Algemeen

- Welk item vind je belangrijk voor vertrouwd samenwerken en heb je gemist in deze vragenlijst?
- Heb je nog andere opmerkingen over samenwerken en vertrouwd voelen?

### Open en gesloten vragen 2<sup>e</sup> vragenlijst

Gesloten vraag:

Heb je het idee, dat er iets is veranderd in de samenwerking vergeleken met 2 maanden geleden?

Open vragen:

Bij antwoord 'ja' op vraag of respondent verandering heeft ervaren:

- Wat is er veranderd? Positief – Negatief.
- Waar denk je als eerste aan bij 'Respect'?
- Geef een positief voorbeeld van respectvol gedrag tijdens de samenwerking
- Geef een voorbeeld, waarbij respectvol gedrag tijdens de samenwerking verbeterd kan worden.
- Krijg je wel eens een compliment? Bij ja: Waarover gaat dit compliment?

Vind je het makkelijk om feedback aan een teamlid te geven?:

- Wanneer wel?
- Wanneer niet?

### Bron

De Team Ontwikkelings Vragenlijst is de vertaling van The Team Development Measure (Stock, Mahoney, & Carney, 2013). Deze Engelse vragenlijst is een betrouwbaar en valide instrument.

Enkele open vragen, gebaseerd op Six (2004) en Rushton et al. (2013) zijn toegevoegd, zodat alle relevante aspecten vanuit de literatuur met betrekking tot vertrouwde samenwerking aan bod komen.

### Referenties

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## Appendix 2. Codeboek Vertrouwen

	Vertrouwen	<b>1. Bekwaamheid:</b> domeinspecifieke - vaardigheden (skills), - competenties en - eigenschappen
	Vertrouwen	<b>2. Welwillendheid</b> wil de ander belangeloos iets voor je/elkaar doen
<b>KENMERKEN</b>	Vertrouwen	<b>3. Toewijding</b> Levert de ander de inspanning, die je/men verwacht Dwz. van elkaar op aan kunnen
<b>VERTROUWEN</b>	Integriteit	<b>4. Norm-acceptatie</b> De normen (+gedrag) van iemand zijn aanvaardbaar voor de ander. Dwz. het is zo, men heeft dezelfde overtuiging
	Vertrouwen	<b>5. Kwetsbaarheid:</b> - een risico nemen; je kunt iets belangrijks verliezen. - je voelt je afhankelijk van de ander.
	Vertrouwen	<b>6. Eerlijkheid.</b> - er op kunnen vertrouwen dat het waar is wat iemand zegt, belooft of beweert.
	Acties: vertrouwen opbouwen (= gedrag)	<b>7. Openheid geven:</b> - informatie geven - pos.+ neg. feedback, complimenten geven - open en direct - eerlijk en open - mening geven
<b>ACTIES</b>	opbouwen	<b>8. Invloed delen:</b> - gezamenlijk besluit nemen - raad vragen - hulp geven en ontvangen - toon zorg en aandacht voor de ander - herken de rechtmatigheid van andermans belang
(zie Six, 2004, p 85 tabel 6.1.)	opbouwen	<b>9. Delegeren:</b> - taken delegeren/verdelen - wederzijdse afhankelijkheid - verantwoordelijkheid geven - verantwoordelijkheid voor eigen handelen
	opbouwen	<b>10. Verwachtingen bespreken:</b> - verwachtingen helder maken en afstemmen - verschillen in verwachtingen duidelijk maken - effectiviteit v.d. samenwerking evalueren

	Acties: vertrouwen afbreken	<b>11. Roddelen (kwaadspreken):</b> Zonder goede bedoelingen praten (Rushton et.al., 2010)
<b>OVERIGE TERMEN</b>		<b>12. Respect:</b> - Aandacht, luisteren - Waardering voor de ander als uniek individu - rekening houdend met elkaar - Gelijkwaardigheid. - niet Oordelen / invullen voor de ander
	Conditie	<b>13. Onderling contact:</b> - Gezellig (werk-) plezier - persoonlijke relatie
	Conditie	<b>14. Kenmerken team:</b> - rol leidinggevende - teamgrootte - teamdoelen
	Conditie	<b>15. Tijd:</b> - beschikbare tijd - overlegmomenten - duur v.d. samenwerking (aantal jaren)
	niet te scoren	<b>16. Niet te scoren</b>
		<b>22. Samenwerken</b>
		<b>27. Positieve reactie op feedback</b>
	2e vragenlijst	<b>28. Negatieve reactie op feedback</b>
		<b>29. Persoonsgebonden</b>
		<b>71. Positieve feedback</b>
		<b>72. Negatieve feedback</b>



## Appendix 3. Factors and related statements.

### Factoranalysis first survey.

All items that load > 0.4 on a factor are used. Item 7 does not load on any factor > .4. therefore, this item is removed.

After the calculation of the reliability (Cronbach's Alpha) some items are removed to improve the item scale of the related factor. An overview of all factors and related items are displayed below. The removed items are colored light grey.

### Overview factors and related statements.

		Factors									
		1. Onderlinge relatie	2. Taakverdeling	3. Gedeelde invloed	4. Betekenisvol contact	5. Open en eerlijk.	6. Individuele bijdrage	7. Saamhorigheid	8. Gezamenlijk belang	9. Zelf open bespreken	10. Leren van fouten
1. Onderlinge relatie	5. Alle teamleden voelen zich vrij om hun ideeën te delen met het team.	,441									
	6. Alle teamleden voelen zich vrij om hun gevoelens te uiten in het team.	,547									
	8. het team gaat op een rustige, zorgzame en opbouwende manier om met conflicten.	,664									
	9. Ongeacht het onderwerp is de communicatie tussen de mensen van dit team direct, eerlijk, respectvol en positief.	,528				,477					
	12. Het team heeft duidelijke criteria om de uitkomsten van de teaminspanning te evalueren.	,527									
	19. Alle teamleden hebben de doelstellingen van het team duidelijk begrepen.	,609									
2. Taakverdeling	15. Er is verwarring over welk werk het team zou moeten doen.		,759								
	16. Er is verwarring over hoe het team het werk hoort uit te voeren.		,819								
	17. Alle leden van het team begrijpen de taken en verantwoordelijkheden van de individuele teamleden.		,639								
	28. Informatie die belangrijk is voor het team wordt openlijk gedeeld door en met alle teamleden.		,474								
3. Gezamenlijk besluit	3. Teamleden praten over andere teamleden achter hun rug om.			,782							
	4. Allen teamleden dragen bij aan het nemen van beslissingen over het werk van het team.			,423							
	27. Sommige leden van dit team tonen weerstand wanneer ze leiding ontvangen.			,659							
	29. Alle personen in dit team voelen zich vrij om suggesties te doen voor het verbeteren van het functioneren van het team.			,642							
	13. Als team komen we met creatieve oplossingen voor problemen.				,463						

4. Betekenisvol contact	22. Ik vind het prettig om in gezelschap van andere teamleden te zijn.					,741					
	23. Dit team is voor mij persoonlijk een betekenisvolle ervaring.					,822					
5. Open en eerlijk.	1. Teamleden zeggen wat ze werkelijk bedoelen.						,552				
	2. Teamleden zeggen wat ze werkelijk denken.						,704				
	30. Wanneer er teamproblemen zijn, dan zoekt het team op een open manier naar mogelijkheden om ze op te lossen.						,682				
6. Individuele bijdrage	24. Ik heb duidelijk inzicht in wat andere teamleden van mij verwachten als lid van het team.							,523			
	25. Het werk dat ik doe in dit team wordt gewaardeerd door de andere teamleden.							,654			
	26. Ik mag mijn unieke persoonlijke vaardigheden en bekwaamheden gebruiken ten behoeve van het team.							,782			
	33. In ons team worden fouten makkelijk toegegeven.						,420				
7. Saamhorigheid	11. in dit team ondersteunt men elkaar en kijken de leden om naar elkaar.								,696		
	14. In het team heerst meer een WIJ dan een MIJ gevoel.								,712		
8. Gezamenlijk belang	18. Teamleden plaatsen de prestaties van het team boven hun eigen prestaties.									,715	
	20. Teamleden vinden de doelen van het team belangrijker dan hun eigen persoonlijke doelen.									,572	
	31. Bij dit team wisselt de persoon die de leiding neemt, afhankelijk van wie het meest geschikt is voor de taak.								,622		
	10. het team bespreekt openlijk beslissingen die invloed hebben op het werk van het team, voordat ze worden genomen.									,462	-,421
9. Zelf open bespreken	34. Ik zeg altijd wat ik denk.										,748
	35. Ik ben altijd bereid om een fout, als ik die gemaakt heb, toe te geven.										,592
10. Leren van fouten	21. Ik ben tevreden met de resultaten die het team tot nu toe heeft behaald.										,460
	32. Fouten worden gezien als mogelijkheid om te leren.										,709
	7. Het team toont tolerantie, flexibiliteit en waardering van de unieke verschillen tussen teamleden.										
Extraction Method: Principal Component Analysis.											
Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in 21 iterations.											

