



# **The black and white effect of being labeled**

**The influence of being labeled by the DiSC personality model from the perspective of the labeled participants**

**Debby.L.H. Geissler**

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*Sometimes you have to see people as a crayon.  
They may not be your favourite colour, but you need them to complete the picture  
-Unknown-*

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## Abstract

This study examines the influence of being labeled with the DiSC personality model from the perspective of team members of three self-managing teams. To study this influence we use the Social categorization theory (SCT) and the Social identity theory which we refer to as the identification and categorization process. The identification and categorization process is focused on identifying similarities and differences with other individuals to create a shared identity. We did study how the DiSC personality model influences the identification and categorization process of the participants. 29 employees from three self-managing teams of one legal department in a non-profit organization situated in the Netherlands are qualitatively examined about a communication training which they have followed with their team. During the communication training a four-quadrant instrument, the SCAN model, is used as a tool to improve the communication and to develop cooperation and transparency between the team members of a self-managing team. In this study we refer to the DiSC personality model instead of the SCAN model because the SCAN model is a derivative of the DiSC personality model.

First, the participants were asked to describe the DiSC personality model as a tool for the identification and categorization process in their self-managing team. Results show that the DiSC personality model provides insight in approaching and understanding other team members and themselves. According to the participants, the model can be seen as approach tool, a self-knowledge tool, an understanding tool, and eventually leads to insight in the self and others. Beside these findings there was a group of participants that mentioned that the model cannot be seen as a tool for team members in a self-managing team who want to develop cooperation and transparency. Based on these findings we are able to conclude that the DiSC personality model is useful to create insight, based on the identification and categorization process, in the self and other team members for most of the participants.

Second, all of the participants were asked to describe the personality traits of the four different basic colored team roles in the DiSC personality model. For all of the basic colored team role personality traits were mentioned which were similar and different from the findings about the DiSC personality model in the literature. This means that the participants identify and categorize themselves not only based on the personality traits of the DiSC personality model as known in the literature. They also use new personality traits to identify and categorize themselves and others with. Therefore, we conclude that being labeled by the DiSC personality model cannot be seen as a complete picture. Thoughts and descriptions of the participants about personality traits are also important to optimize the identification and categorization process for the participants in this study.

Third, the influence of being labeled by one color in the DiSC personality model is evaluated by the participants as positive and negative. Clarity, corner, group forming, consciousness, professionalisation, and respect can be seen as the positive influence of being labeled with one color of the DiSC personality model. The participants who are positive about the influence of being colored by one color in the DiSC personality model mentioned that being colored by one color in the DiSC personality model leads to clarity and consciousness. The model provides a sort of guidance for the development of working together in a self-managing team in a professional and respectful way. Based on the positive sample comments and keywords we are able to conclude that the positive influence of being colored by one color in the DiSC personality model can be evaluated as a certain kind of guidance that leads to calmness among the participants the participants in a self-managing team. The negative influence of being labeled by one color of the model is mentioned by the participants through the keywords too simple, not one colour, box thinking, stamp, generalization, and not usable. Based on the findings we can conclude that the negative influence of being colored by one color in the DiSC personality model according to some of the participants is evaluated as too simple. The participants who are negative about being labeled by one color in the DiSC personality model mentioned that it is important to keep in mind that everybody has certain colors and that it is not good to generalize the team members in a self-managing team based on one basic colored team role. They mentioned that it is important to remind that everybody has a little bit of every basic colored team role in the DiSC personality model. Overall, we conclude that it is important to keep in mind that being labeled by one color of the DiSC personality model should be the starting point of the identification and categorization process and not develop in a kind of negative diversity or discriminative subdivision. Implications of the findings and suggestions for future research are presented.

## Preface

In September 2013 I started with my master thesis while working at a legal department of a Dutch non-profit organization. In this Dutch non-profit organization a communication training was followed by all of the team members of the department I worked for. The goal of the communication training was to improve the communication between the team members of the self-managing teams and to develop cooperation and transparency. For me, this communication training, and in particular the evaluation of the communication training by me, the management of the department, and the other team members was the starting point for my master thesis. The goal of this master thesis was to study the influence of being labeled by the DiSC personality model from the perspective of the participants. The past ten months I enjoyed working on my master thesis and I am proud to present you all this report with my theoretical framework, method, results, conclusions, and discussions.

This study is focused on the DiSC personality model, a model that is used to provide insights in different human personality styles. The DiSC personality model is a four quadrant colored personality model. In every quadrant a personality style with different personality traits is mentioned. During the communication training the DiSC personality model was used to improve the communication between the team members of the self-managing team and to develop cooperation and transparency between the team members. Goal of this master thesis is to provide information about the influence of being labeled by the DiSC personality model from the perspective of the participants. This influence is studied from three perspectives:

- ⇒ the influence of the DiSC personality model as a tool;
- ⇒ the influence of being labeled by the DiSC personality model;
- ⇒ the influence of being labeled by one color in the DiSC personality model.

The implementation of this study would not have been possible without the benevolent cooperation of my colleagues and the management of the department of the Dutch non-profit organization I have worked for until the end of December 2013. Thank you all for your participation, cooperation and understanding. Without you all I could not have finish this study. Next, I want to thank my friends and family for their support during this period of intensive studying. You all have been very supportive, inspiring, and motivating when I was lost and frustrated. I am grateful that I am surrounded by all of you. In particular, I want to thank my classmate and my dear friend Casmira Wortel for all the hours that we studied together at university to finish our master thesis. Without your support, motivation, and inspirational peptalks it would have been much harder to finish this study. Thank you for being there for me. At last, I want to thank my supervisors Msc. S. Janssen and Dr. M. van Vuuren for their enthusiasm, critically view, and valuable advices during the past ten months. Through your enthusiasm and positivity about my work I kept motivated during my master thesis process.



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## 1. Introduction

This study examines the influence of being labeled by the DiSC personality model from the perspective of the labeled participants. The participants in this study are team members of three self-managing teams of one department in a Dutch non-profit organization. All of the participants participated in a communication training in which their personality style was labeled based on the DiSC personality model. According to this model team members can have a red, yellow, green, or blue personality style. Different personality styles will lead to different thinking, feeling, and behaviour. The behaviour of team members is affected by their personality because personality is a determinant of how team members think, feel, and behave (Jones & Hartley, 2013). Team members who are perfectly aware of their personality are evaluated as social intelligent because they can communicate in an excellent way with other team members (Jones & Hartley, 2013). Therefore, it was conceptualized that personality testing contributes to the development of cooperation and transparency, which will eventually lead to effective communication between team members of a self-managing team.

Based on the findings of Jung (1921) who can be seen as the first researcher who focused on the dividing of personality traits of individuals we conceptualize that when team members work together in a self-managing team, the different team members will have different team roles based on different personality styles. The personality model that is used in this study is the DiSC personality model. At this moment there are not much published research studies about the DiSC personality model, a model that according to prior literature is used by more than 50 million individuals and is evaluated as highly accurate from the perspective of colleagues of the individuals (Jones & Hartley, 2013; Puccio & Grivas, 2009). The limited findings in the literature about the DiSC personality model are used as starting point for this study. Prior literature is especially focused on mapping the personality traits of the different colored team roles. However, at this moment, as far as known, no study is focused on the identification and categorization process that the DiSC personality model encourages. Neither did any study focus on the evaluation of the DiSC personality model from the perspective of the labeled participants. We think it is important to connect the perspectives of the participants to the perspectives of the colleagues of the participants. By doing so, it is possible to improve the identification and categorization process that the DiSC personality model encourages. We state that its also important to create a scientific framework for a practical personality model that is used a lot worldwide to optimize the understanding and the evaluation of the model.

With this study we contribute to the understanding of how participants identify and categorize themselves with the different basic colored team roles of the DiSC personality model in a self-managing team. By using the self-categorization theory and the social identity theory, in this study referred to as the identification and categorization process, we present a framework that provides deeper understanding of the influence of being labeled by the DiSC personality model from the perspective of the labeled participants. By providing insight in the identification and categorization process of the participants this study contributes to the understanding of the DiSC personality model in three ways. First, it provides inside in the usefulness of the DiSC personality model from the perspective of the participants. They described how the model can contribute to the identification and categorization process of the team members. Second, the team members described the four different colored team roles, by doing so we are able to understand how the participants in this study use the four different colors of the DiSC personality model for their identification and categorization process. Third and last, this study provides inside in the influence of being labeled by one color in the DiSC personality model. The participants described how it feels to be labeled by one color in the model. The results of this study will lead to a better understanding of the DiSC personality model from the perspective of the participants.

Our research question is the following: *“How does the DiSC personality model influence the identification and categorization process of team members in a self-managing team?”* To address this question a qualitative study is conducted among team members of three self-managing teams from one department in a Dutch non-profit organization. Next, the theoretical background is discussed, followed by the method and results. After that the conclusions and discussions are presented together with suggestions for future research.

## 2. Theoretical framework

### Conceptualisation of a self-managing team

A self-managing team can be defined as a group of two or more team members whose work is interdependent and who socially interact and work together to achieve a common goal (Brueller & Carmelli, 2011; Rasmussen & Jeppesen, 2006; Susskind, Odom-Reed, & Viccari, 2011). The common goal team members need to achieve is developing an optimal mutual team relationship based on cooperation and transparency and being a successful self-managing team (Brueller & Carmelli, 2011). Cooperation is evaluated as an essential part of successful self-managing teams (Dierdorff, Bell, & Belohlav, 2011).

Successful composed self-managing teams are expected to communicate rich and to be efficient and motivating. The development of a self-managing team can be defined as an ongoing communication process between the team members. The communication process will be created by team members who are asking questions to each other, giving feedback to each other, experimenting with each other, reflect on results with each other, and discussing errors or unexpected outcomes of actions with each other (Brueller & Carmeli, 2011; De Projectgroep RVT's, n.d.; Programmamanagement Vernieuwing B&B, 2009). By doing so transparency and cooperation are developed. Transparency and cooperation are needed and will lead to the development of collectivism, which is defined as the degree team members hold a general orientation towards the goals of the self-managing team (Campion, Papper, & Medsker, 1996; Dierdorff et al. 2011).

In general employees feel more committed to their team than to their organization (Eggins, O'Brien, Reynolds, Haslam, & Crocker, 2008). Based on these findings we conclude that being part of a self-managing team is important for employees. We conceptualize that a communication process between team members which is evaluated as positive, efficient and motivating will lead to the commitment of team members in a self-managing team. Next to that we conceptualize, the assembling of a self-managing team is important for the functioning of the team members and the results of the self-managing team. There is a relationship between the way team members are categorized, a self-managing team is composed, and the way the self-managing team will be functioning (Eggins et al. 2008). Self-managing teams are most of the time composed based on attributes like personal skills and expertise (Eggins et al. 2008). These attributes are important for the forming of a self-managing team, but next to that, personality, identification and self-categorization are also important for the functioning of team members in a composed self-managing team (Eggins et al. 2008; Lamarche-Bisson, 2002).

### Personality models

It is clear that composing a successful self-managing team involves more than putting people together to work with each other (Eggins et al. 2008). A self-managing team exists of team members with different personalities which are put together to effectively work together. In an optimal composed self-managing team different team members with different personalities communicate rich with each other and are able to develop an effective communicating and motivating self-managing team. Different personality styles can have impact on the way the other team members think, feel, and act which will lead to relevant, useful, and important input for all the team members, the self-managing team as a whole, and the organization (Eggins et al. 2008).

Personality models are used to provide insight in the different personality styles of team members. In the literature they are evaluated as useful, but they are also criticized on the basis of negative consequences and biases. They provide information about team members in terms of assertiveness, approach to the decision-making process, the responsiveness, and the preferred style of interacting with other team members (Jones & Hartley, 2013; Nadesan, 1997). Personality models are representational and can be used to develop transparency among team members in self-managing teams. Transparency through personality models is seen as the first step to the development of effective work relationships (Nadesan, 1997). Next to that, personality models lead to self-knowledge and self-development. They will enable team members to become closer to reaching their full potential as individual (Jones & Hartley, 2013).

However, personality models are also criticized because they control the organizational life. Personality tests which are used next to the personality models are able to statistically measure personality traits of

employees (Nadesan, 1997). The measuring traits are easy to use and are often more important than the reliability and the validity of the results. The results of a personality test are described as an instantaneous photograph of an individual which is based on responses the individual did give to constructed norms of behavior and attitude which refer to personality traits (Nadesan, 1997). Because of the fact that personality tests are seen as instantaneous photographs it is possible that the tests are not always valid, reliable and have negative consequences. Team members can pretend to be someone else during the test, tests can be used in multiple applications and the answers can have social desirability biases (Nadesan, 1997). Next to that, situations can influence behavior and personality (Nadesan, 1997). These negative consequences and biases need to be kept in mind when team members in self-managing teams use personality models. Therefore, it is desirable that team members in self-managing teams which use personality models always stay objective. Observation of other team members is even important as statistical test results which predict individual traits and behavior (Nadesan, 1997).

In this study we state that the different team members will have different personality styles and we conceptualize that personality models can be useful for the development of effective communication, efficiency, motivation and the commitment to a self-managing team. This study is focused on the DiSC personality model. The DiSC personality model is one of the most widely used measurement instrument of personality in organizational contexts and is evaluated as a highly accurate model (Jones & Hartley, 2013; Puccio & Grivas, 2009; Reynierse et al. 2000).

### **DiSC personality model**

Jung, the developer of personality models, stated that modern individuals can only know themselves when they can become conscious of themselves (Jones & Hartley, 2013). He created a model in which he divided individuals in four behavioural types. Based on the findings of Jung, Martson developed in 1928 the four-quadrants behavior concept based on human emotions (Jones & Hartley, 2013). The goal of Martson was to improve human relationships by explaining how emotions will lead to behavioral differences between individuals as well as to changes in the behavior of individuals over time. Martson focused on practical explanations that would help individuals to understand and manage their experiences in other individuals (Jones & Hartley, 2013). The findings of Martson are used to develop a practical instrument, known as the DiSC personality model (Jones & Hartley, 2013; Puccio & Grivas, 2009; Reynierse, Fink, & Harker, 2000; Suman, 2009).

DiSC stands for Dominance, Influence, Steadiness, and Conscientiousness (Jones & Hartley, 2013). Every letter of DiSC represents a part of the four quadrant model. The four different parts refer to different responding styles of different personalities (Reynierse et al. 2000). Every part of the DiSC personality model refers to two of the next four variables: introvert, extrovert, task-oriented, and relationship-oriented. These four variables influence the cooperation between team members in self-managing teams because the variables represent the different ways team members can cooperate and communicate with each other (Levasseur, 2011). Based on these four responding styles and the four variables team members can have four different personalities which are indicated with the colors red, blue, yellow, or green (Reynierse et al. 2000). Red is connected to dominance, yellow is connected to influence, green is connected to steadiness, and blue is connected to conscientious. In this study we use the term team role instead of personality style because this is the term that is used during the communication training. The participants did also use the term team role during the interviews.

The personality traits which are measured with the personality test that is associated with the model are descriptive, groupings of behaviors that occur together and are useful for individuals. According to prior studies every quadrant of the four-quadrant model refers to a group of personality traits (Jones & Hartley, 2013; Puccio & Grivas, 2009; Reynierse et al. 2000; Suman, 2009). Bipolarity and complementarity are implied in the DiSC personality model. Bipolarity because of the fact that every team role has implicit high and low variables based on being extrovert, introvert, task-oriented, and relationship-oriented. There is also bipolarity because red and blue are opposite team roles just as yellow and green are each others opposites. Complementarity refers to the different personality traits of the four team roles that supplement each other (Reynierse et al. 2000).



With the DiSC personality model team members are able to develop, identify and understand personality traits. By using the DiSC personality model in self-managing teams as a development tool, knowledge about the different team members with different team roles can be formalized and centralized (Nardesan, 1997). This process can lead to the development of effective work relationships based on cooperation and transparency between the different team members and the prediction of the responses of team members and team outcomes.

The DiSC personality model helps to explain why team members function in the way they do based on different personality traits (Lamarche-Bisson, 2002). The understanding of the different personality traits of the different team members will reduce conflicts and increase the cooperation and transparency between the team members of a self-managing team (Levasseur, 2011). The model does not attempt to identify enduring and stable traits, but rather to reflect surface traits that emerge as an individual responds to a particular situation (Jones & Hartley, 2013; Puccio & Grivas, 2009). It is not stating that team members will only have one team role. Most of the time they have more than one team role, with one outstanding team role which is mentioned as a basic team role (Suman, 2009).

The basic colored team role is the most characteristic team role for the team member. Next to the basic colored team role there will be other team roles which depend on the way the team members respond to other team members and situations (Suman, 2009). We started this study on the basis of a communication training. During this communication training all of the team members did receive one basic colored team role on the basis of the results of a personality test which is connected to the DiSC personality model. Therefore in this study the focus is on the surface traits of the basic colored team role and not on the different colored team roles which depend on the way team members respond. Before it is possible to study the DiSC personality model it is necessary to conceptualize the personality traits of the different basic colored team roles the participants can have based on prior literature.

#### *Red team role*

Team members who have a basic red team role are extrovert, active, and task-oriented (Lamarche-Bisson, 2002; Puccio & Grivas, 2009). A red team role refers to the D of dominance in the DiSC-model. Team members who are red are dynamic, decisive, independent, decisively, pushing, competitive, results-oriented, confronting, and direct (Reynierse et al. 2000). They are powerful and like challenges and control which lead to progress (Lamarche-Bisson, 2002; Puccio & Grivas, 2009). Red team members are high in dominance and low in conformity. This means that red team members are assertive when they have to face situations and that they do not prefer to follow instructions.

#### *Yellow team role*

When team members have a basic yellow team role they are extrovert and relationship-oriented, which is similar to I of influence in the DiSC-model (Lamarche-Bisson, 2002; Puccio & Grivas, 2009). Yellow team members are garrulous, enthusiastic, friendly, easygoing, attention-minded, affectionately, optimistic, and inspiring (Reynierse et al. 2000). They are also powerful and active but not in the same way as the red team role (Puccio & Grivas, 2009). Team members who are yellow are motivated by recognition and approval, they like to help and motivate other team members (Lamarche-Bisson, 2002). Yellow team members are high in being influential but they are low in being stable (Reynierse et al. 2000). They have good persuasion capacities but or not always stable in their thinking and acting (Reynierse et al. 2000).

#### *Green team role*

Introvert and relationship-oriented team members are indicated with the basic green team role, this refers to the S of steadiness in the DiSC personality model (Lamarche-Bisson, 2002; Puccio & Grivas, 2009). When team members are green they will be seen as social, likes to finish business, team player, patience, thoughtful, subservient, reliable, loyal, and practical (Reynierse et al. 2000). Green team members are passive and want to maintain stability and support. They like working based on patterns and want to feel safe and secured in their team (Lamarche-Bisson, 2002; Puccio & Grivas, 2009). Green team members are high in stability and low in being influential. They perform in a consistent and predictable manner and are not good in creating movement and changes (Reynierse et al. 2000).

### Blue team role

The basic blue team role is indicated with introvert and task-oriented which is standing for the C of conscientiousness in the DiSC-model (Lamarche-Bisson, 2002). Blue team members are accurate, sensitive, analytical, rule-followers, diplomatic, ordered, perfectionist, and calculative (Reynierse et al. 2000). Team members who are blue are also passive, they strive for quality and correctness. They like working based on clarity, precision, and planning (Lamarche-Bisson, 2002). Blue members are also passive similar to green team members, next to that they are high in conformity and low in dominance. They try to avoid problems and do not easily trust other team members (Reynierse et al. 2000). Figure 1 provides an overview of the colored four quadrant DiSC personality model with the different personality traits.



Figure 1: DiSC personality model with personality traits

Through the use of the DiSC personality model team members can compare the behavior and personality traits of themselves with the different team members to their normative standards. We conceptualize that by doing so, the team members identify and categorize themselves with the other team members based on self-categorization and social identification.

### Self-categorization and social identification

According to the self-categorization theory (SCT), developed by Turner, Hogg, Oakes, Reicher, and Wetherell in 1987, individuals categorize themselves by identifying similarities and differences of opinion, status, ambition, role, education, work history, and ideology based on psychological attachment (Egins et al. 2008; Hentschel, Shemla, Wegge, & Kearney, 2013). Through identification individuals create a sense of who the individual is, this is referred to as the defining of a personal identity. Individuals identify also with who other individuals are, and how the individuals are associated with each other, which is referred to as the forming of a social identity (Ashforth, Harrison, & Corley, 2008; Cicero, Bonaiuto, Pierro, & Van Knippenberg, 2007). According to prior literature identification can be seen as a statement about categorical membership and group forming (Ashforth et al. 2008; Cicero et al. 2007; Egins et al. 2008; Hentschel, Shemla, Wegge, & Kearney, 2013). The social identification process and the SCT have been overviewed in prior literature as an

integrated whole (Hogg, 2001). Therefore, in this study we use the term identification and categorization process instead of the social identification process or SCT.

The identification and categorization process is based on depersonalization (Ashforth et al. 2008; Hogg, 2001; Roccas & Brewer, 2002;). A social identity is created when team members work together, accept each other and they feel a sense of belongingness to a group, for example the self-managing team or the team role they have (Ashforth et al. 2008; Eggins et al. 2008; Hogg, 2001). They share values about what they care about, what they want, what they believe, and what they do (Ashforth et al. 2008; Hogg, 2001). When a social identity is confirmed, the team members see the other team members in their self-managing team or their team role as part of who they are (Eggins et al. 2008). They will become a part of the self of the individual team member (Roccas & Brewer, 2002).

The identification and categorization process of the team members depends on different psychological factors such as affection and social or emotional evaluations (Hogg et al. 2012). Team members develop different social identities by identifying similarities and differences with other team members (Ashforth et al. 2008). These connections and social identities are not stable over time (Eggins et al. 2008). Different contexts and situations can lead to different connections and social identities (Eggins et al. 2008; Roccas & Brewer, 2002). This means that it is likely that team members will not only develop a social identity which connects them to their self-managing team, but that they also will form social identities with team members based on the similarities and differences in the different basic colored team roles.

A shared social identity will lead to shared team motivation. The group interest will then become more important than the individual interest of the team members (Eggins et al. 2008; Roccas & Brewer, 2002). The degree of liking between the team members will increase, and so will the degree of trust, the communication between the team members, the cooperation, transparency, and the willingness to work together to implement changes (Eggins et al. 2008). Next to that, a shared social identity will reduce uncertainty because of the identification with values of other team members (Ashforth et al. 2008; Hogg, 2001). Team members who are connected with different social identities will define, refine, and commit themselves to the values of the groups they share their social identity with. The more social identities are formed by team members, the more inclusive the different group identities become. Eventually the different dimensions of the different groups with different social identities will be evaluated as equivalent (Roccas & Brewer, 2002). When the different social identities are evaluated as equivalent shared emotions, attachment, coordination, and the sense of belongingness in the social environment, in this study the self-managing team, of the team members is developed (Leach et al. 2008; Hentschel et al. 2013).

### **DiSC personality model connected to self-categorization and social identification**

Based on the literature we can conclude that the DiSC personality model claims four things. First, it claims to be useful to identify personality traits. Second, it claims that it helps team members to understand themselves and the other team members. Third, the DiSC personality model claims that it provides insight in responding styles and fourth and last, the model claims that it can be used as a development tool for team members. Overall, we conclude that the DiSC personality claims to provide insight in the behavior and personality traits of team members by labeling the team members with a color based on the DiSC personality model. However, as far as we know it is not clear how the participants evaluate the process of being labeled by the DiSC personality model.

In this study we conceptualize that being labeled by the DiSC personality model influences the identification and categorization process of team members in a self-managing team. When team members use the DiSC personality model they will probably identify and categorize themselves based on the personality traits in the DiSC personality model. This will lead to a label of one basic colored team role. At this moment it is not clear how team members identify and categorize themselves with the DiSC personality model. It is also not clear if the DiSC personality model is useful as a tool for the identification and categorization process of team members in a self-managing team. And as far as we know it is not clear what the influence is of being labeled with one basic colored team role in the DiSC personality model. This study contributes to the literature by addressing these gaps.

### 3. Method

#### Research context

In 2010, the department of the Dutch non-profit organization of this study launched an innovation trail. Part of innovation trail was the forming of self-managing teams. According to De Projectgroep RVT's (n.d.) and the Programmamanagement Vernieuwing B&B (2009) the definition of a self-managing team is as follows: a relatively fixed group of minimum 10 and maximum 15 team members who are jointly responsible for the overall process in which goods or services are produced, which are supplied to an internal or external customer. The self-managing team plans and monitors the progress of the process, solves daily problems and improves processes and procedures, without constantly asking for help from the management or supporting departments.

The goal of the development of a self-managing team is cooperation, transparency, enthusiasm, and fairness between team members (De Projectgroep RVT's, n.d.). Listening to each other, communicate with each other, giving and receiving feedback, and helping each other are part of the cooperation within a team. Transparency emanates from being willing and being able to be accountable. Equality and having fun are associated with enthusiasm and at last making a right (legal) consideration is part of fairness. By working in a self-managing team a balance needs to be created between a good atmosphere and the achievement of results (De projectgroep RVT's, n.d.).

Based on the information from De Projectgroep RVT's (n.d.) and the Programmamanagement Vernieuwing B&B (2009) a number of conclusions can be drawn regarding the role of communication within a self-managing team. A self-managing team is based on a positive mutual team relationship when there is cooperation and transparency between the team members. Optimal cooperation and transparency is created by effective communication between the team members of the self-managing team. The following factors are affecting the cooperation and transparency in a self-managing team:

- ⇒ balance between a good atmosphere and achieve results;
- ⇒ daring to be critical;
- ⇒ daring to give feedback;
- ⇒ being able to receive feedback;
- ⇒ motivated to learn from each other;
- ⇒ motivated to learn with each other;
- ⇒ daring to enter into conflicts;
- ⇒ daring to solve conflicts;
- ⇒ feeling responsible for your own result;
- ⇒ feeling responsible for the team result.

In the past three years the team members of the three self-managing teams in the non-profit organization worked together in the self-managing teams and noticed that reaching cooperation and transparency is not always easy because of the different working styles, communication styles, and the different thoughts about how to handle in specific situations. Therefore a communication training was planned to help with the development cooperation and transparency in the self-managing teams. The communication training consisted of two meetings and was provided to all of the team members of the three self-managing teams. The team members have different functions such as administrative staff, employees objection, employees appeal, labor experts, and insurance physicians.

During the communication training the trainer used a personality model which was referred to as the SCAN model, a derivative of the DiSC personality model. Figure 2 shows an overview of the SCAN model. The model is a four-quadrant personality model which provides insights in four different basic colored team roles the team members can have. According to the trainer the improvement of the communication and the development of cooperation and transparency between the team members is influenced by the different team roles the different team members have. As mentioned before in this study we use the term DiSC personality model instead of SCAN model. Jones & Hartley (2013) state that there is no noticeable difference between the varieties of names used in four-quadrant instruments used for personality testing. Based on the findings in the

theoretical framework about the DiSC personality model and the content of the SCAN model it is possible to conclude that the SCAN model and the DiSC personality model contain similar properties.

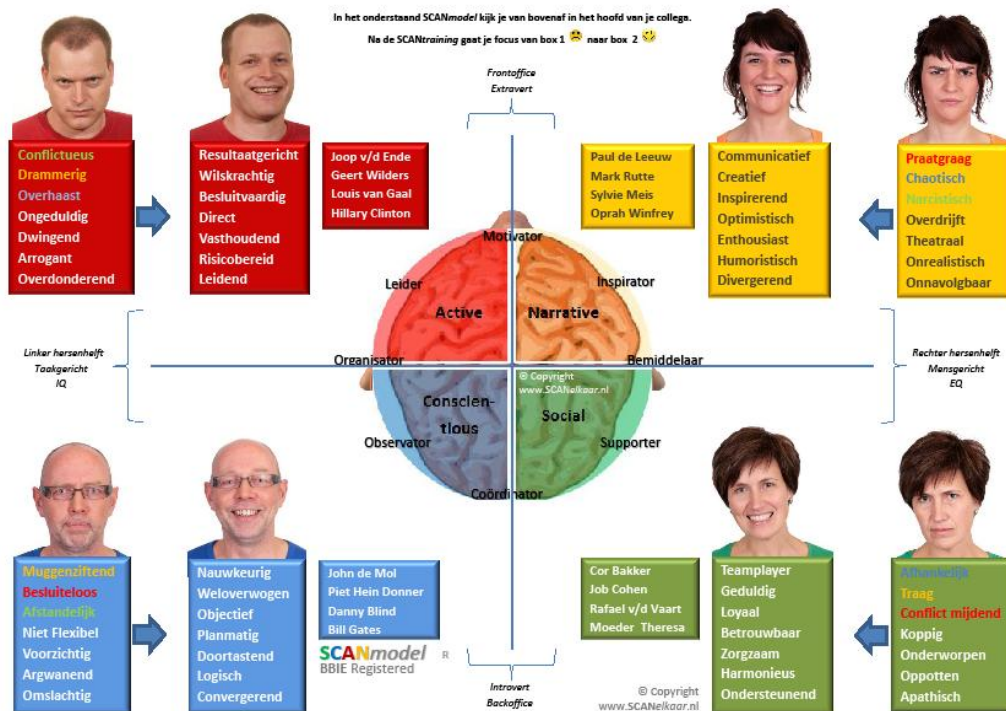


Figure 2: Dutch version of the SCAN model

During the first meeting every team member had to do a personality test in which they had to scale 40 personality traits from one until four. One refers to least recognizable, two refers to a little recognizable, three refers to recognizable, and four refers to most recognizable (see Appendix 1). Based on these 40 personality traits every team member was evaluated in the basic team role red, yellow, blue, or green. After the personality test the trainer handed out the DiSC personality model to all of the team members to visualize the different basic colored team roles of the DiSC personality model. The DiSC personality model was also used to provide information about the personality traits of the different basic colored team roles. The personality traits are connected to the four variables extrovert, introvert, task-oriented, and people oriented. Every team member did also divide the other team members of their self-managing team based on the DiSC personality model. They did this based on their own thoughts and their experiences with the other team members and they did not use the personality test to label the other team members.

In the theoretical framework was stated that the DiSC personality model does not attempt to identify enduring and stable traits, but that the model reflects traits that occur in particular situations (Jones & Hartley, 2013; Puccio & Grivas, 2009). During the communication training the model was used in a different way. The trainer focused during the training on the basic colored team role. The trainer stated that all of the team members have personality traits of the four different basic colored team roles, but after that, he let the team members focus on the highest result of the personality test, which is referred to as the basic colored team role. Therefore we conclude that during the training the DiSC personality model is used as a tool to map the basic colored team role without focusing on situations which influence the different colored team roles.

## Participants

A total of 35 participants from three teams of one department in a non-profit organization in the Netherlands were invited to participate in this study. Team one exists of 12 team members, team two exist of 11 team members, and team three exists of 12 team members. The participants had to meet three selection criteria. First, they had to work in a self-managing team at the department of the non-profit organization for at least six months. This limits the possibility of knowing too less about the identification and categorization

process in the self-managing team. Second, the participants had to participate in the first meeting of the communication training because in this meeting the DiSC personality model was explained and used. Third, we strived for a balance between the three self-managing teams in gender and size so we had the possibility to compare the results of the three teams.

In total, 29 participants volunteered and agreed to take part in this study. The participants represented four functions of the department in the non-profit organization, from administrative employee to insurance physician. The participants were not rewarded for their participation. All participants, 11 from team one, 7 from team two, and 11 from team three did meet the first two criteria. Team one exists of seven women and four men, team two exists of three women and four men, and team three exists of eight women and three men. Based on the participation results we concluded that it was not suitable to compare the data on team level or gender level.

### **Semi structured interviews**

To conduct this study, a qualitative approach is most appropriate because of the fact that different views of the different team members of the self-managing teams on the DiSC personality model need explanation and substantiation instead of answers based on scales. Interviews will provide deeper understanding of how the different team members think about the usefulness of the DiSC personality model and the influence of being labeled based on the model. During the interviews sessions the participants were invited to share their opinion about the communication training and the DiSC personality model in order to gather relevant information about the influence of being labeled by the DiSC personality model on the identification and categorization process. All of the participants gave permission to audiotape the interviews, which lasted on average 60 minutes. We assured to all the participants that their responses would remain confidential and anonymous.

Every interview was divided in three sections, the interview scheme is placed in Appendix 2. By doing so, it is possible to divide the data in before the communication training, during the communication training, and after the communication training. We started by asking the participants about how their self-managing team started after they are put together. Questions were asked about the cooperation, safety, trust, and communication between the team members in the self-managing team. In this way we created a starting point for this study based on information about the functioning of the team before the communication training. During this first part of the interview we mentioned to the participants that they had to answer the questions in their own words, without referring to the colored team roles in the DiSC personality model. This because the participants were not familiar with the DiSC personality model before the communication training.

The second part of the interview was focused on the communication training and the DiSC personality model. First, we asked the participants to divide their team in the DiSC personality model. Next, we asked questions about the opinion of the DiSC personality model and the recognition in the different colors of the DiSC personality model. The model was handed out to the participants in this part of the interview so they could use the model to answer the questions. We believe that the dividing of the team members in the model by the participants and handing out the model to the participants contributes to the richness of the answers on the questions because most of the team members probably will not have a clear vision of the DiSC personality model in their mind. We also asked directly how it felt to receive a color featured with personality traits. By doing so, we gained insight in the thinking of the team members about the influence of being labeled based on the DiSC personality model.

At last, the third part was used to evaluate the communication training and the DiSC personality model. Participants were asked about their opinion about the communication training and about the possible change of the degree of cooperation, safety, trust, and communication between the team members in the self-managing team after the communication training. We also asked about the value and the usefulness of the DiSC personality model. In this way it was possible to connect the identification and categorization process to the evaluation of the DiSC personality model that was used during the communication training.



## Data analysis

All of the 29 interviews were verbatim transcribed and were analyzed with Atlas.ti software for the conversion of codes. In this study we focus on the four basic colored team roles red, yellow, green, and blue. 24 participants did receive a basic colored team role and five participants did receive more than one basic colored team role based on the results of the personality test. Therefore, we use the comments of the 24 participants with one basic colored team role. Based on the literature, the interview scheme and the answers of the participants a code scheme with three main themes and 16 sub themes was constructed to analyze the data. We choose to analyze at first seven randomly chosen interviews so it is possible to optimize and complete the code scheme before we analyze the data of all of the 29 transcribed interviews. Next to that, by doing so the reliability of the data analysis will be confirmed.

Using a multistep content-analytic procedure, the data were analyzed in three coding rounds. The author started with reading the transcripts of seven randomly chosen interviews and divided the relevant quotations in the three main themes: (1) effects of the communication, (2) identification and categorization process, and (3) attitude towards the model and processes.

In the first round of coding the selected quotations in the three main themes were divided in 17 sub themes. (1) Effects of the communication with sub themes such as general communication, communication during work meetings, and cooperation. (2) Identification and categorization process with sub themes such as being colored, recognition in red team role, describe uniqueness before the communication training, and characteristics of leaders. (3) Attitude towards the model and process with sub themes such as evaluation of the communication training, opinion about the model, and DiSC personality model as tool.

In the second round, the codebook of the seven randomly chosen interview transcriptions were handed over to an independent coder. This coder recategorized all of the quotations in the three main themes and the 17 sub themes. Based on the codings of the independent coder a total Kappa of .50 was calculated, divided in .00 (effects of the communication), .87 (identification and categorization process), and .25 (attitude towards the model and processes). After discussion between the author and the independent coder and several adjustments the total Kappa increased to .87, divided in .55 (effects of the communication), 1.00 (identification and categorization process), and 1.00 (attitude towards the model and processes). Based on these Kappas, the rest of the interviews were coded.

After that, a few adjustments were made between the three main themes to optimize content of the three main themes. The final code scheme has three main themes: effects of the communication, identification and categorization process, and organization information instead of attitude about the model and processes. The three main themes are divided in 16 sub themes instead of 17 sub themes because opinion about the model and being colored were put together in the main theme identification and categorization process. The sub theme DiSC personality model as tool is recategorized in the main theme effects of the communication.

The final code scheme after these adjustments is as follows: main theme (1) effects of the communication with sub themes such as general communication, communication during work meetings, cooperation, and DiSC personality model as tool (see Appendix 3). Main theme (2) identification and categorization process with sub themes such as being colored, recognition in red team role, describe uniqueness before the communication training, and characteristics of leaders. The main theme (3) organization information with sub theme evaluation of the training is only used for the organization and is not used in this study. After these adjustments in the third round of coding the total Kappa did not change (.87). The Kappa of the main theme effects of the communication increased to .61, and the Kappa of the main theme identification and categorization process stayed the same (1.00). The Kappa results are provided in appendix 4, 5, and 6.

## 4. Results

In this part we will explain the results and draw conclusions based on the findings. We will start with the DiSC personality model as a tool. Next we will focus on being labeled by the DiSC personality model and at last we will explain the results which focus on the influence of being labeled by one color in the DiSC personality model. We will do this with sample comments from the participants and keywords we formed based on these sample comments. We think the use of keywords is suitable in this study because in the DiSC personality keywords are used to provide information about the personality traits of the different team roles. By using keywords in the results it is easier to draw conclusions about the founded similarities and differences in the DiSC personality model.

### The DiSC personality model as a tool

According to Reynierse et al. (2000) the DiSC personality model is used to provide insight in personality styles and responding styles which will lead to the understanding and identification of personality traits of individuals. We asked all of the participants to describe the usefulness of the DiSC personality model from their own basic colored team role perspective. Based on the comments of the participants we formed keywords.

First, the participants mentioned that the DiSC personality model in general gives insight in how people socially interact with each other (keyword: insight tool). Second, they stated that the DiSC personality model is useful because the model provides insight in how to approach other team members by giving clarity about how you communicate and how you behave when you approach other team members (keyword: approach tool). Third, the participants mentioned that the model helps to understand and recognize how they are approached by other team members with other basic colored team roles and why other team members react in a certain way (keyword: understanding tool). Fourth, the DiSC personality model provides self-knowledge because the model provides information about how to look at your own basic colored team role (keyword: self-knowledge tool). Fifth, and last, there were also participants, with blue and green basic colored team roles, who stated that the DiSC personality model is not usable as a tool because the model is not natural and because of that they cannot remember the personality traits in the model (keyword: not a tool). According to these participants the information which is provided in the model is interesting but not usable. Next the results with keywords and sample comments are mentioned in Table 1

Table 1: Usefulness from the perspective of the four team roles

Keywords	Sample comments
Insight tool	"It is a tool. And also a real tool which not should be overdo. It provides insight in how people social interact with each other. So why someone reacts like this and someone else like that. So that says enough because it is similar to communication, how you deal with each other."
Approach tool	"So you know where someone stands and how to approach someone. You can take this into account." "And it is convenient to use it to approach someone else. To use it also for the communication."
Understanding tool	"Because I can revise or recognize in the colour model why a team member reacts in a certain way. Very black and white, but yes that is what it actually boils down to." "Yes it has me. It helps me, yes. Especially the understanding for the other. That is where I really see the value."
Self-knowledge tool	"I see it as a tool because the colour model gives you clarity about how you communicate, how you behave." "Yes. I have more understanding of myself and others."
Not a tool	"Well for me it is not a tool. Yes. Because I cannot remember it. And it. Yes. It is not natural for me, I think. It does not feel natural to me and that is why I cannot remember it." "Well I do not really see it as a tool. As I said, I think it is good to know how everyone is sticking together as a person but I do not think that I am going to use it in the communication with others."

With the answers of the participants it is possible to specify the findings of Reynierse et al. (2000) who stated that the DiSC personality model can be seen as an insight tool. Creating insight according the participants can be divided in knowing how and why to approach and respond to other team members, knowing how and why to be approached by other team members, and knowing how and why the team members respond to each other. We conclude that creating insight with the DiSC personality model will lead to understanding of the self and other team members. This supports the identification and categorization process. Some of the basic blue and green colored team roles mentioned that the DiSC personality is not useful because

it is difficult to remember, it is not natural, and because of that they will not use it in the communication. We conclude that the DiSC personality model is useful to create insight in other team members for the basic red and yellow colored team role and that it is not always useful for the basic blue and green colored team role.

### Being labeled by the DiSC personality model

The second part of the results section is focused on being labeled by the DiSC personality model. Prior literature did conceptualize the DiSC personality model with personality traits for the four different basic colored team roles red, yellow, green, and blue (Lamarche-Bisson, 2002; Puccio & Grivas, 2009; Reynierse et al. 2000). However, it is not clear how the participants identify and categorize themselves with the DiSC personality model. Therefore, we asked all of the participants during the interview sessions to describe the different basic colored team roles in the DiSC personality model. Based on these descriptions insight about the identification and categorization process with the DiSC personality model was provided from the perspective of the participants. Next we will describe the results of the four basic colored team roles. Table 2, 3, 4, and 5 provide sample comments about the different basic colored team roles from the perspective of the participants. Based on the sample comments we formed keywords.

#### *Basic red team role*

Team members with a basic red team role are conceptualized in prior literature as dynamic, decisive, independent, decisively, pushing, competitive, results-oriented, confronting, direct, powerful, assertive, and they like challenges and control (Reynierse et al. 2000; Lamarche-Bisson, 2002; Puccio & Grivas, 2009). According to the participants a team member with a basic red team role can be seen as a narcissism personality which is clear in the communication with other team members. This refers to the variable extrovert in the literature. The basic red team role is often lead by emotions, because of these emotions the basic red team role will be evaluated sometimes as negative or conflicting. The participants described the basic red team role also as thought-out and to the point which refers to clear communication. Other keywords are assertive, fast, extreme, concrete, clear, wining, and outgoing. In Table 2 an overview is given of the keywords and sample comments the participants use to identify and categorize themselves and others in the DiSC personality model.

Table 2: Being red from the perspective of the different team roles

Keywords	Sample comments
Clear	"Look I am someone, that is what I hear, and I do know that of myself, that usually very clear can explain what is not good or not right about something. Or where there somewhere, yes I can, I am analytical good I say that about myself. And that is, I can also make it clear." "And further she always brings her views very clear, of what she finds."
Emotional	"That is unfortunately negatively affected, the influence I could have by my emotions by which I am guided."
Conflicting	"I try to get my point. Go into battle." "Difficult and annoying."
Narcissism	"Moreover, I had expected the word narcissism here in red, but they have placed it in yellow. So that surprised me a little bit, but good."
Thought-out	"And if you are red and then I think that sometimes doing things thought-out by saying."
To the point	"And he is really red as direct saying: what do you want. So now I understand that much better and I just can. At the moment I have a question and go to him. Then I just ask that question. And if he wants to know more than he can ask that." "Yes, because that actually said thinking, gosh people come to the point and what you need now."
Assertive	"I find myself more yellow. But I understand why they think that I am very red. Because at work, you show more result-oriented behaviour. Direct, assertive, managing. That behaviour you show just a lot at work."
Fast	"Well red tends to be faster with laying down a point of view and sticking to that. While other colours are more likely to look at cooperation and coming to a solution. So that is a little difference."
Extreme	"Red was very powerful, by saying."
Concrete	"If I had a question than I formulated that very vague, or not very vague, very concrete and clear. And that I exactly know what kind of response I did receive, wanted. And yes good. And before that question was sometimes not clear enough. Whereby we did get into nasty debates. Where he did become more red than he already was."

Table 2: (continued)

Keywords	Sample comments
Outgoing	"But I think if I would absolutely disagree with something or whatever. Or if I would be very angry. Than I could be pretty red. And that I could be, maybe very outgoing."
Wining	"And yes that red wining I find very difficult."

### *Basic yellow team role*

In prior literature team members with a basic yellow team role are described as garrulous, enthusiastic, friendly, easygoing, attention-minded, affectionately, optimistic, and inspiring, powerful, active, persuasive (Reynierse et al. 2000; Puccio & Grivas, 2009). They are motivated by recognition and approval, and they like to help and motivate other team members (Lamarche-Bisson, 2002). According to the participants the basic yellow team role can be described as communicative, blabbermouth, powerful, easy-going, and organizing. This refers to the variable extrovert in the literature. When team members with a basic yellow team role are communicative and talk all the time or to much they are described as blabbermouth by the participants. The participants also used the keywords not getting to the core and chaotic. Team members with a basic yellow team role talk a lot and find it difficult to be to the point. Other keywords that are used during the interview sessions are humoristic and verbose. The mentioned sample comments which the participants used to identify and categorize with the basic yellow team role are showed in Table 3 together with the keywords we formed based on the sample comments.

Table 3: Being yellow from the perspective of the different team roles

Keywords	Sample comments
Powerful	"Well I can be quite powerful. And when something irritates me than I can respond very bitchy, by even just say very clear: well get out or something like that. Than I am really at my limit and than I do not know, I cannot, I cannot handle myself for a moment and than I say things which are not so smart."
Blabbermouth	"Yes I am a big blabbermouth."
Easy-going	"Well this is that easy-going factor because they call it like that and I have it in a strong way to, and of course I can talk very good when it is necessary."
Organizing	"With me organising is very strong developed. Organizing can be little things, like guys we have to meet. We have to arrange something. Guys we have to put this on the agenda or something like that."
Not getting to the core	"Or are very yellow and make jokes about it and do not want to get too close. That sort of thing."
Chaotic	"And my yellow colleague often wants to tell a lot"
Humoristic	"Yes they are a bit chaotic and yes before I thought, well never mind. But now I think I am going to ask what they mean exactly."
Communicative	"I think I use a lot of humour. Especially during team meetings. Sometimes a riveting battle, just to give it a twist."
Verbose	"And yes communicative. I think I have a communication sensor with which. That I can feel what happens beneath the surface."
	"Well I think that. I think that I do. That I am going to approach them in a different way. I think I will be more careful. And a little bit more, not to quick to the point. Let them speak a little bit more. So they will feel more comfortable. I do not have to enter their room to discuss a file directly. First I have to."

### *Basic green team role*

Likes to finish business, social, team player, patience, thoughtful, subservient, reliable, loyal, passive, supportive, stable, and practical are personality traits of the basic green team role mentioned in the literature. They like working based on patterns and want to feel safe and secured in their team (Reynierse et al. 2000; Lamarche-Bisson, 2002; Puccio & Grivas, 2009). The participants did describe the basic green team role as thoughtful, social, structured, and questioning. Team members with a basic green team role are also described as supportive, cautious, and they wait before they speak. Scared, excited, and reserved are other keywords the participants use to describe the basic green team role. All of the keywords that the participants used refer to an introvert personality style of the basic green team role. The mentioned sample comments which are used to identify and categorize with the basic green team role are mentioned in Table 4 together with the keywords we formed based on the sample comments.

Table 4: Being green from the perspective of the different team roles

Keywords	Sample comments
Thoughtful	"What I really recognize is that conflict-averse behaviour and that slow behaviour. That you slow down when you do not feel comfortable."
Social	"And in our team there are a lot of pretty social characters and less task-oriented characters maybe. So you create already a pleasant atmosphere."
Structured	"Yes I approach them differently because you know they like to chat first and that it has to be a little structured. So then you just know like ok, if I go to someone green and I have a question. Than I should not expect to get a direct answer."
Questioning	"First I get a lot of questions in return to make my question clear and when there is clarity I get an answer."
Wait-and-speak	"And it could be that I, look I have for example quite a passive attitude. I do not quickly take the lead by doing things. But I, I am in, in just the whole cooperation thing."
Supportive	"Yes I am not someone who takes the lead and yes. So that is why I am standing here. I am a little more cautious. I also let it often come down on me, later I come with additions and arguments."
Cautious	"But I am not a puller and in the foreground. A leader who wants to take on and can do that. I do not want to do that."
Excited	"And in the beginning I was immediately like hurry up. Now I am more like okay well fine, just let her. She finds it scary, exciting. And that I have a lot more understanding for the greens."
Reserved	"Because I think that when you are for example green that is also not always nice to be I think. Because then people will see you like very reserved."

### *Basic blue team role*

Blue team members are accurate, sensitive, analytical, rule-followers, diplomatic, ordered, perfectionist, and calculative (Reynierse et al. 2000). Team members who are blue are also passive, they strive for quality and correctedness. They like working based on clarity, precision, and planning (Lamarche-Bisson, 2002). The participants used the keywords devious, thoughtful, chairman, accurate, and structured to describe the basic blue team role. These keywords refer to the variable introvert in the literature. According to the participants the basic blue team role can be seen as focused on their work. They also did describe the basic blue team role with the keywords outlined, structured, organizing, perfectionist, calm, and passive. These keywords also refer to focused and introvert. The sample comments which are mentioned by the participants to identify and categorize with the basic blue team role during the interview sessions are mentioned in Table 5 together with the keywords we formed based on the sample comments.

Table 5: Being blue from the perspective of the different team roles

Keywords	Sample comments
Devious	"I am sometimes also devious in my words, just, as I want to tell something than I start with a side story. And they I say ooh well to make a long story short, this was the point."
Thoughtful	"That blue first has to be able to think very well before they speak. And that they cannot immediately, if you, someone says, now I am going to make a round to know how you think about it. Then you see with blue, yes they have to think about it a little bit longer." "That they need a little bit more time sometimes for their answer."
Chairman	"You just notice that for example blue persons are generally good chairmen in our team."
Accurate	"Because they are very methodical and accurate and remain focused. They stick to a format what is very important and they are not easily distracted. They are just very ordered. That is very nice."
Outlined	"Yes, something very simple, but what I notice, what I like where I am sitting now. Yes, that we work in a blue way. And we have to, because it involves a lot of files. And it works pleasurable, outlined, clarity. A structure."
Structured	"The way I handle my files and work. The organizing."
Organizing	"Sometimes they say and I do believe that, that I am a little too perfectionist. That is connected to the fact that if I say something then it is usually about the substance of a file. And then it is indeed the fact that I look at it in a broad way."
Perfectionist	"I am calm, remain calm and do not easily get messed up by others. Yes, I find that very difficult. I mean if there is a point to discuss. Than I find it very difficult to be part of the discussion and to say something that makes sense. Because I think too much about whether it is good or not good to say something. I am not a blabbermouth, so I am not going to say everything I think. It will be weighted in my head."
Calm	Yes, for myself, yes I usually give my opinion when someone asks for it. And I am working on it to do it more often spontaneously. But I usually think, talk about it you all, and when we have to make a decision I give my opinion."
Passive	

In general we can conclude that the participants provide new insights in the personality traits of the basic colored team roles in the DiSC personality model. They mentioned similar and different personality traits than the personality traits in the literature during the interview sessions. When we compare the findings of the DiSC personality model in the literature with the results of this study the personality traits of the basic colored team roles in the DiSC personality model have overlap and provide new insights.

### The influence of being labeled by one color in the DiSC personality model

This last part of the results and conclusion section is focused on the influence of being labeled by one color in the DiSC personality model from the perspective of the participants. During the interview sessions all of the participants did answer questions about how it feels to receive one basic colored team role on the basis of the DiSC personality model and how it feels that they now know what basic colored team role the other team members have.

The keywords which were mentioned by the participants are too simple, clarity, not one colour, group forming, box thinking, consciousness, professionalisation, stamp, generalization, corner, respect, and not usable. All of the participants did mention new keywords and overlapping keywords. We can conclude that the DiSC personality model has influence in a positive and negative way. Clarity, group forming, consciousness, professionalisation, respect, and confirmation can be seen as the positive influence of the DiSC personality model. Table 6 provides an overview of the positive sample comments with the keywords we formed. The negative influence of the model is mentioned by the participants through the keywords too simple, not one colour, box thinking, stamp, generalization, and not usable. Table 7 provides an overview of the negative sample comments with the formed keywords.

Table 6: The positive influence of being labeled by one color in the DiSC personality model

Keywords	Sample comments
Clarity	<p>"Yes, what do I think about that? That is, itself gives me a little bit clarity."</p> <p>"It is more enlightening, clarifying to think about something like this."</p> <p>"Well I. Like I said you know a little bit. You know what people stand out and I would also give them red soon and they have red too. And the people who are green I also did gave green. I have the feeling that it is all. Yes, you know it all, but this is exactly really confirming again."</p>
Corner	"No, I like being pushed in a corner."
Group forming	"Ok, that I did get a colour. Well then I had the feeling that I was part of something"
Consciousness	<p>"I am well aware of, well of what qualities and pitfalls go with people."</p> <p>"Yes, I think that it particular provides insight into how you are going to communicate with each other and yes that you are still conscious. You are now more aware of how you, why your colleague does that."</p>
Professionalisation	"I hope and I believe that it its, everyone is more aware of colour. Which, yes makes you react differently than other people on certain things. And that is why it becomes less personal. Or and that have less risk that it becomes less personal. You hope for that. That you can keep it just businesslike."
Respect	"So everyone gets more respect and space now to be who they are. Being able to do so for speaking."

Based on the sample comments and keywords we can conclude that the development of cooperation and transparency are encouraged by the positive influence of being labeled by one color in the DiSC personality model. The participants who are positive about the influence of being colored by one color in the DiSC personality model mentioned that being colored by one color in the DiSC personality model leads to clarity and consciousness. The model provides a sort of guidance for the development of working together in a self-managing team in a professional and respectful way. We conclude that being a respectful professional supports the development of cooperation and transparency in a self-managing team. According to the positive participants being labeled by one color in the DiSC personality model influences the way of communicating between the participants because they understand each other better and this leads to more respect for each other and the different styles of communicating. Based on the positive sample comments and keywords we are able to conclude that the positive influence of being colored by one color in the DiSC personality model can be evaluated as a certain kind of guidance that leads to calmness among the participants the participants in a self-managing team.



Table 7: The negative influence of being labeled by one color in the DiSC personality model

Keywords	Sample comments
Too simple	"And then I said like, it also has a serious drawback what you are doing here, because you make it so simple for people that they do not talk with each other."
Not one colour	<p>"I do not like saying people who are yellow, or blue, like this is what they are, because I am. Well for me yellow was the result. Well I was also very green, but I also see red in myself and I also see a lot of blue in myself. So yes."</p> <p>"Well I think everyone has certain colours. It is not that everyone is just green, or blue, or yellow. Look there are of course a lot of people who have traits of all colours. And look, I know for myself that I have some traits of all colours."</p> <p>"Look, it is not like you only give blue answers. Or just give green answers. And that is what I like. This also means that, because if that is the case, if you are an outspoken colour, I think you have a lot more problems in a team. While if you have the skills to take a position depending on a situation."</p> <p>"It is a guidance, but it is not sanctified or infallible. I think you also have persons in it, I know that for sure, who are among the different colours. It is very black and white. I do not think that people can be placed in boxes. When I look at myself, I was one or two points in difference between those two colours."</p>
Box thinking	<p>"At the same I also have a bit of an aversion to boxes. And I thought boxes what a bullshit. Everyone, well you cannot put people in boxes. So that is what I think is a difficult point."</p> <p>"Yes people are a little bit put in a box. But I want to be careful with that at the same time."</p> <p>"Well it is, was not confronting and if you nuance the fact that you do not necessarily have to be in one box of the model than it is not wrong, and now I contradict myself, to be confronted with it. In that sense that it was not confrontational, but it was pleasant to discover it."</p> <p>"Yes look you should also be careful that your team is not continuing to put the individuals in boxes. Like you stay blue or green or you are red. That is yes, that is not helping."</p> <p>"That became clear yesterday during the work meeting. Because previously, I was chairman, I asked well use your bracelets. And in no time: yes we are put in boxes. But everyone has something of any colour. And that is, you are meant to be careful that you do not put people in boxes. Because everybody has a little bit of everything."</p>
Stamp	"Yes it is a bit of a stamp what you get. When everyone gets a colored bracelet what you. But I do not see it so heavy."
Generalization	"Plus you quickly forget who is what. It is that we have bracelets so you can still occasionally who is what. But I still often think ooh yes what does that actually mean, blue? Yes, you have a picture in your head, a instantaneous picture. But when you look closely there are more things than what my perception of blue is. So it is quite a generalization."
Not useable	"Yeah what is in it? What can I do when you are red, green, or blue. Some are stronger or more intelligent than other. Yes that is right. I have nothing along with those colours. I think it is a really stupid thing. Really annoying."

The simplicity of the DiSC personality model which is referred to by clarity as a positive influence of the model is also evaluated by some of the participants as a negative influence. Based on the findings we can conclude that the negative influence of being colored by one color in the DiSC personality model according to some of the participants is evaluated as too simple. The participants who are negative about being labeled by one color in the DiSC personality model mentioned that it is important to keep in mind that everybody has certain colors and that it is not good to generalize the team members in a self-managing team based on one basic colored team role. The negative influence of being labeled by one color in the DiSC personality model is also evaluated as box thinking. According to the participants the four-quadrant DiSC personality model has a negative influence because this model encourages putting team members in one box instead of seeing team members with more than one basic colored team role. According to the participants the team members will be evaluated as a basic colored team role more than the person they really are. They mentioned that it is important to remind that everybody has a little bit of everything in the DiSC personality model.

## 5. Discussion

The aim of this study was to examine the influence of the DiSC personality model from the perspective of the identification and categorization process of team members in a self-managing team. In this part we will discuss the results and conclusions. At first, we will discuss if the DiSC personality model as a tool is useful for the identification and categorization process. Second, we will discuss how the participants identify and categorize themselves and others with the four different basic colored team roles. At last we focus on the influence of being labeled by one color in the DiSC personality model. By doing so we are able to address the research question: *“How does the DiSC personality model influence the identification and categorization process of team members in a self-managing team?”*

### The DiSC personality model as a tool

The results show that the DiSC personality model in general provides insight in social interaction between team members. This can be broken down in providing information about how to approach the other team members and how to be approached by the other team members, understanding the way of approaching and the way of responding of the self and others, and providing information which leads to self-knowledge. Next to that some of the participants (basic blue and green colored team role) mentioned that the DiSC personality model cannot be seen as a tool. Based on the results we conclude that the DiSC personality model is useful to create insight in the self and other team members for the basic red, yellow, green, and blue colored team roles but that it is not always useful for the basic blue and green colored team role.

We did conclude that the DiSC personality model is useful to create insight in the self and other team members. Creating insight is similar to the findings of Lamarche-Bisson (2002) who stated that the DiSC personality model explains why team members function in the way they do based on different personality traits. However, the results of this study provided extra information about the usefulness of the DiSC personality model as a tool. Creating insight can be divided in using the DiSC personality model as a approach tool, a self-knowledge tool, and an understanding tool. This is similar to the findings of Jones & Hartley (2013) and Nadesan (1997) who stated that the DiSC personality model can be evaluated as a useful tool which leads to the understanding of others and the development of self-knowledge.

When we connect the results of this study to the identification and categorization process we can confirm that the DiSC personality model can be used in the identification and categorization process to find similarities and differences between the self and the other team members (Ashforth et al. 2008; Eggins et al. 2008; Hentschel et al. 2013). Identifying similarities and differences is what the identification process is about. By creating insight in different basic colored team roles in the DiSC personality model team members are able to look at similarities and differences in personality traits from the self and other team members. Based on the findings in this study the similarities and differences in the four basic colored team roles will focus on self-knowledge (self-knowledge tool), the way to approach and how to be approached (approach tool), and understanding the way of approaching and the way of responding (understanding tool). This identification process is important for the communication, and in particular the development of cooperation and transparency in a self-managing team. Because through the identification and categorization process in combination with the DiSC personality model the team members are able to learn to understand their own behaviour and personality style and the behaviour and personality style of other team members. Therefore, in general it is possible to see the DiSC personality model as a tool for the identification and categorization process of the team members in a self-managing team.

On the other side there are participants with a green or blue basic colored team role who mentioned that the DiSC personality model cannot be used as a tool for the identification and categorization process. They find the information in the model interesting but not usable because using the model is not natural and the personality traits in the model are not easy to remember. It is not clear why not all of the blue and green team members are able to use the DiSC personality model as a tool for the identification and categorization process. It is possible that they cannot identify themselves with the personality traits which are mentioned in the model. In the next section we will discuss this further.

Another possibility is that the identification and categorization process is more difficult for the introvert (basic blue and green team role) than for the extrovert participants (basic red and yellow team role). Future research should focus on the usefulness of the DiSC personality model as a tool for the identification and categorization process from the perspective of the basic blue and green team role perspective. This because of the fact that most of the participants in this study were indicated with a basic blue or green team role. On the other side it is possible that this majority of basic blue and green colored team roles derives from the type of organization. One of the participants mentioned that the blue personality traits are similar to what the department expects from the employees. This comment can also be a starting point for future research and is also mentioned by Aritzeta, Swailes, & Senior (2007) who stated that there are indications that there is an attraction between team role types and organizational type.

### **Being labeled by the DiSC personality model**

Based on the results we can conclude that the participants use similar and different keywords to describe the basic colored team roles. This is important for the identification and categorization process because this process is based on similarities and differences which leads to the development of identities (Ashforth et al. 2008). We conclude that the participants used a lot of keywords to identify and categorize the basic colored team roles which are not mentioned as personality traits in the literature about the DiSC personality model. The participants provide new insights in the personality traits of the basic colored team roles in the DiSC personality model. During the interview sessions they mentioned personality traits similar and different than the personality traits we found in the literature.

It is possible that not all of the participants with the blue and green basic colored team role see being labeled by the DiSC personality model as useful for the identification and categorization process because they cannot identify and categorize themselves and others with the mentioned personality traits in the model. The question that arises is why some of the participants identify and categorize themselves with other personality traits than the mentioned personality traits in the DiSC personality model. First, we assume that the mentioned personality traits in the model are a selection and probably limited to the personality traits which are most mentioned in the literature. On the other side prior literature did not provide information about how the personality traits in the DiSC personality model are conducted so we cannot confirm this assumption. Second, it could be that it is too difficult to identify and categorize with the mentioned personality traits in the DiSC personality model. For example because the personality traits are not recognizable or doubtful. Or because the mentioned personality traits in the literature derived from the opinions of the colleagues of participants who did the DiSC personality test and that the personality traits in the literature did not derive from opinions of the participants themselves. When it is hard to identify with the mentioned personality traits in the model, the development of cooperation and transparency will be difficult because the team members are not able to find the similarities and differences in the personality styles of the self and other team members. This will impede the understanding of the self and the other team members

The participants followed a communication training in which the DiSC personality model was used to provide insight in different communication styles to develop cooperation and transparency. So, another possibility is that the DiSC personality model is focused on personality styles in general and that the participants are focused on personality styles in combination with communication styles. This can be a starting point for future research, what personality traits of the four basic colored team roles in the DiSC personality model focus on communication, and especially cooperation and transparency. Expanding the DiSC personality model based on these and future findings is recommendable. When the DiSC personality model is used to improve the communication between team members and to develop cooperation and transparency it is important that the personality traits correspond with personality traits that refer communication and to the development of cooperation and transparency. Perhaps this is a reason for the striking results between the participants about the influence of being labeled with the DiSC personality model from the perspective of the participants.

In this study we conclude that the identification and categorization process is not working optimal in combination with the DiSC personality model. It is important that the participants can identify and categorize themselves as much as possible with the mentioned personality traits of the different basic colored team roles in the model, in this study this did not occur. Therefore being labeled by the DiSC personality model can be

evaluated as not effective for the participants in this study. Future research could focus on the improvement of the DiSC personality model to improve the identification and categorization process from both perspectives, the participants and the colleagues of the participants. This can be connected to the paper of Aritzeta et al. (2007) who state that the Belbin's Team Role Model is ideally operationalized through a self-perception inventory and through observers' assessments. By connecting the opinions of the participants (self-perception) and the colleagues of the participants (observers) it is possible to create an optimal identification and categorization process from both perspectives based on shared thoughts. At this moment the DiSC personality model is not ideally operationalized because not all perspectives are used to collect the ideal personality traits for the different personality styles.

Another possibility is that only personality traits are not enough to improve the communication between the team members and to develop cooperation and transparency in a self-managing team. According to Aritzeta et al. (2007) and Mumford, Iddekinge, Morgeson, and Campion (2008) individuals can be successful and satisfied in a team when their personal abilities, interests and personality traits adjust with the requirements, rewards, and interpersonal relations. This means that team members should have a team role which connects their abilities, interest, and personality traits to be successful in their self-managing team. From this perspective the basic colored team roles of the DiSC personality model should be seen as a step forward towards the development of cooperation and transparency. Future research could focus on what is necessary to improve the communication between team members and to develop cooperation and transparency in self-managing teams because in prior literature this is as far as we know not mentioned (Eggings et al. 2008; Nadesan, 1997).

### **Being labeled with one color in the DiSC personality model**

We can conclude that the DiSC personality model has influence on the communication and in particularly the development of cooperation and transparency in a self-managing team in a positive and negative way. Clarity, group forming, consciousness, depersonalization, respect, guidance, and confirmation can be seen as the positive influence of the DiSC personality model according to the participants. The negative influence of the model is mentioned by the participants through the keywords too simple, not one colour, box thinking, stamp, generalization, not usable, and black and white.

The goal of the communication training in which the DiSC personality model was used was to create understanding between individuals and to support the development of cooperation and transparency. Cooperation and transparency are developed when team members are able to identify and categorize themselves with other team members in their self-managing team. The keywords which refer to the positive influence of being labeled by one color in the DiSC personality model support the identification and categorization process because this process is based in depersonalization (Ashforth et al. 2008; Hogg, 2001; Roccas & Brewer, 2002). Depersonalization leads to group forming through clarity and consciousness which occurs when team members identify the similar and different personality traits of themselves and the other team members in their self-managing team (Eggins et al. 2008). This means that the influence of being labeled with one color in the DiSC personality model is providing guidance and confirmation based on the personality traits in the model.

Nadesan (1997) criticized personality models because most of the time they are an instantaneous photograph of an individual based on statistical information. Situations which influence personality styles are not kept in mind when personality test are used. None of the participants criticized the personality test which is used itself, probably because they look at situations and personality traits together instead of the statistic results. However, they criticize the influence of being labeled by one color in the DiSC personality model because it is generalizing and leads to box thinking. The aim of the identification and categorization process is depersonalization which can be seen as generalisation in a positive way (Ashforth et al. 2008; Hogg, 2001; Roccas & Brewer, 2002). Box thinking is a logical negative influence of being labeled by one color in the DiSC personality model because the model is divided in four boxes. It is easy to say that the model will lead to box thinking in a negative way. On the other side almost 50% of the participants mentioned that they are more than one basic colored team role which reduced the negative effect of box thinking and thinking about personality traits in a black and white way. It is possible that the negative influence of being labeled by one color in the DiSC personality model will reduce when it is easier for the participants to identify with the

personality traits of the four basic colored team roles. Therefore, we state again that future research should focus on the expanding of the personality traits.

A different approach is the development of diversity through the identification and categorization process (Mannix & Neal, 2005). Group forming, depersonalization, generalisation, and box thinking are influences of being labeled by one color in the DiSC personality model according to the participants. This means that sub groups, the basic colored team roles, are formed which leads to diversity between the team members in the overall group, the self-managing team. Mannix & Neal (2005) state that diversity, also defined as heterogeneity, can have positive and negative influences in self-managing teams. This is similar to the answers of the participants in this study. It is possible to decrease the negative influence of diversity when a bridge is formed between the identification and categorization process of the self-managing team and the identification and categorization process of the basic colored team roles (Mannix & Neal, 2005). When the team members with different basic colored team roles focus on the personality traits which are similar between the team members in the self-managing team and how they can use these personality traits to develop cooperation and transparency in the self-managing team the differences between the team members will decrease and a balance will be formed. This balance based on complementarity of characters with different personality styles will lead to a successful self-managing team (Leung, Chan, & Lee, 2003; Omar et al. 2010). Finding a common overarching goal, for example: how can we serve our customers optimal with our different basic colored team roles should eventually lead to collectivism which can create the effect of “being different yet feeling similar” (Mannix & Neal, 2005).

It is also possible to look at being labeled and to connect this with the negative influence of diversity. According to Nadesan (1997) being labeled will lead to the possibility of discrimination because the differences between the labeled groups will increase instead of the development of more cooperation and transparency between the different labeled groups. Group forming between participants with the same label will be encouraged because of the label. Through this group forming the diversity between the groups with different labels will increase. This is similar to the findings of Mannix and Neale (2005) who state that the negative effect of diversity is group forming based on labels such as age, gender, or race. This is the opposite of what we strive for in this study because we strive for effective communication based on cooperation, transparency, and equality between team members of the self-managing teams in this study. Everybody is different (age, race, gender, or basic colored team role) but all team members need to be able to identify and categorize themselves with the group identity. In this study this is the group identity of the self-managing team. Cooperation, transparency and wanting to be part of this group is what should be encouraged.

This discrimination effect of being labeled could also occur with the participants in this study who are labeled by the DiSC personality model. It is possible that being labeled will become more important than being part of the self-managing team. When this occurs, the distance between the team members will probably increase and the improvement of communication and the development of cooperation and transparency will not happen. Dierdorff et al. (2011) mentioned this as the individual differences which should come together to create collectivism. Difference between the team members based on their basic colored team role will make the development of collectivism more difficult. This is similar to the findings of Mannix and Neale (2005) and Nadesan (1997) who state that negative diversity which is the same as individual differences in teams can influence the communication and team performance. This because negative diversity leads to competition between in this situation the different basic colored team roles. The competition can eventually even lead to threats between the team members and possible even to discrimination based on the four different basic colored team roles (Mannix & Neale, 2005). So based on these thoughts and findings it is possible to state that being labeled with one color in the DiSC personality model is not always ethical and could even lead to colored discrimination between the participants.

## Limitations

This study focused on the influence of being labeled by the DiSC personality model from the perspective of the participants. The participants in this study 29 team members of three self-managing teams of one department in a Dutch non-profit organization. Therefore, we have to be clear about the limitations in this study. First, the basic colored team roles of the 29 team members are not evenly distributed in this study. We interviewed one participant with a basic red team role, six participants with a basic yellow team role, eight

participants with a basic blue team role, nine participants with a basic green team role, and five participants with more than one basic colored team role. Due to this uneven distribution it is possible that the results about the influence of being labeled by the DiSC personality model from the perspective of the participants are not completely reliable. Future research is needed to improve the reliability of the outcomes of this study. Second, we studied the influence of being labeled by the DiSC personality model by using participants of one department of a non-profit organization. It is possible that this also can affect the outcomes and the reliability of the study. It could be that participants in profit organizations, or even more specific in different departments of different non-profit and profit organizations, have different views about being labeled by the DiSC personality model. This is the reason why we encourage future researchers to study the influence of being labeled by the DiSC personality model in a broader perspective. Studying more departments from different sorts of organizations is important to create a broader view about the influence of being labeled by the DiSC personality model. Third, the DiSC personality model is used worldwide to provide insight in the different personality styles. In this study we focused only on a Dutch non-profit organization. To provide an overall world wide view about the influence of being labeled by the DiSC personality model from the perspective of participants we encourage future researchers to use this study as starting point to study the influence of being labeled by the DiSC personality model from the perspective of the participants worldwide. This because we think that it could be possible that the different personality styles of team members are influenced by culture. By doing so, eventually a complete and reliable overview about being labeled by the DiSC personality model can be conducted.

### **Managerial implications**

For managers this study is useful because it shows that being labeled by the DiSC personality model from the perspective of participants is different than from the perspective of the management. According to the literature for the management the DiSC personality model is useful because it provides an instantaneous photograph of the personality style of the team members (Nadesan, 1997). However, they need to keep in mind that it is an instantaneous photograph and nothing more. Being labeled by the DiSC personality model can be used as starting point for the management but observation of the team members and communication with the team members are even important as the personality test which accompanies the DiSC personality model. We advise the management of organizations that use the DiSC personality model for the improvement of communication and the development of cooperation and transparency to use the outcome of the model as guidance and not as label. It is important to encourage the communication about the personality traits. Team members need to talk with each other about the different basic colored team roles and the personality traits which accompany the different basic colored team roles. The management needs to encourage this process to decrease the negative effects, such as diversity or color discrimination of being labeled by the DiSC personality model.

### **Conclusion**

Based on the findings in this study we are able to conclude that the DiSC personality model is useful to create insight, based on the identification and categorization process, in the self and other team members for most of the participants. However, the findings in this study also show contradictory findings. First, for all of the basic colored team roles personality traits are mentioned by the participants which are similar and different from the findings about the DiSC personality model in the literature. This means that the participants identify and categorize themselves not only based on the personality traits of the DiSC personality model as known in the literature. Therefore, we conclude that being labeled by the DiSC personality model cannot be seen as a complete picture and further optimisation of the model is recommended. Second, the influence of being labeled by one color in the DiSC personality model is evaluated by the participants as positive and negative. Positive because the DiSC personality model can be used as a guidance during the development of cooperation and transparency between team members in a self-managing team. Negative because according to some of the participants everybody has more than one basic colored team role and they evaluate the model as too simple. Overall, we conclude that it is important to keep in mind that being labeled by one color of the DiSC personality model should be the starting point of the identification and categorization process and not develop in a kind of negative diversity or discriminative subdivision.



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## Appendix 1: Keywords in the DiSC personality test

The DiSC personality test is based on 40 personality traits which have to be scaled from one till four. One refers to least recognizable, two refers to a little recognizable, three refers to recognizable, and four refers to most recognizable. Every personality trait refers to a color in the DiSC personality model. Next an overview of the 40 personality traits is given together with the color the different personality traits refer to.

1.	Concurrerend	Rood
2.	Loyaal	Groen
3.	Overtuigend	Geel
4.	Nadenkend	Blauw
5.	Enthousiast	Geel
6.	Besluitvaardig	Rood
7.	Nauwkeurig	Blauw
8.	Zorgzaam	Groen
9.	Perfectionistisch	Blauw
10.	Zelfverzekerd	Rood
11.	Optimistisch	Geel
12.	Harmonieus	Groen
13.	Ondersteunend	Groen
14.	Verstandig	Blauw
15.	Humoristisch	Geel
16.	Moedig	Rood
17.	Ordelijk	Blauw
18.	Onopvallend	Groen
19.	Zakelijk	Rood
20.	Inspirerend	Geel
21.	Direct	Rood
22.	Open	Geel
23.	Diplomatiek	Blauw
24.	Tactvol	Groen
25.	Een teamplayer	Groen
26.	Voorzichtig	Blauw
27.	Resultaatgericht	Rood
28.	Origineel	Geel
29.	Ambitieux	Rood
30.	Kritisch	Blauw
31.	Invoelend	Groen
32.	Spontaan	Geel
33.	Vasthoudend	Rood
34.	Spraakzaam	Geel
35.	Planmatig	Blauw
36.	Verzoenend	Groen
37.	Begripvol	Groen
38.	Risicobereid	Rood
39.	Terughoudend	Blauw
40.	Positief	Geel

## Appendix 2: Interview scheme

Probleemstelling:	<p>What is the contribution of the DiSC-model to the interaction between team members during the development of a positive mutual team relationship?</p> <p>Wat is de bijdrage van het DiSC-model in de interactie tussen team leden gedurende de ontwikkeling van een positieve onderlinge team relatie?</p>
Opbouw interview:	60 minuten maximaal in verband met de werkdruk van geïnterviewden
Uitleg interview:	<p>Geen precieze uitleg over wat ik wil onderzoeken.</p> <p>Globaal aangeven dat ik onderzoek doe naar team rollen tijdens de ontwikkeling van een team.</p> <p>Wel een globale uitleg over wat we gaan doen:</p> <ul style="list-style-type: none"> <li>- de anonimiteit van de geïnterviewden;</li> <li>- het behandelen van de vertrouwelijke informatie;</li> <li>- uitleg geven over het verwerken van de informatie.</li> </ul> <p>Vragen of het interview niet met collega's besproken kan worden zodat alle geïnterviewden zo onbevangen mogelijk aan het interview beginnen.</p>
Interview opzet:	<p>Vet gedrukte vragen zijn het startpunt</p> <p>Overige vragen zijn ter ondersteuning van de beantwoording van de vet gedrukte vragen.</p>

Interview opzet:	
<p><b><i>Jullie werken sinds ongeveer 2 jaar samen in dit team. Voordat jullie de communicatie training van Rob Zigter hebben gehad, waren jullie niet op de hoogte van het kleuren rollen model. Het eerste gedeelte van het interview gaat dan ook niet over de kleuren model maar over de ontwikkeling van jullie team voor het kleuren model.</i></b></p> <p><b><i>Zou jij je team willen verdelen in deze cirkel. In het midden staat de collega die volgens jou het team voorbeeld is. In de eerste ring staan de collega's die aansluiting vinden bij dit team voorbeeld. En verder naar buiten staan de collega's die minder aansluiting vinden bij dit team voorbeeld.</i></b></p> <p><i>(Aanvullende info voor Suzanne/Mark) Dit gedeelte van het interview heeft betrekking op de in- en out group en een eventueel team prototype dat gevormd is door de teamleden. Door deze vraag wil ik bekijken welke relaties er binnen de teams gevormd worden en of er een team prototype is ontstaan in het team of dat dit voor de verschillende team leden verschillend is)</i></p>	
Voor DiSC-model	<ul style="list-style-type: none"> <li>- <b>Kun jij mij iets vertellen over hoe jullie als team zijn begonnen?</b></li> <li>- Hoe zijn jullie als team bij elkaar gekomen?</li> <li>- Wat vond je van deze team indeling?</li> <li>- Hoe voelde jij je in dit team?</li> <li>- Hoe hebben jullie je als team ontwikkeld?</li> <li>- Hoe verliep de communicatie in jullie team?</li> <li>- Welke team leden waren belangrijk voor het team en waarom?</li> </ul> <p><i>Je hebt net de cirkel ingevuld. Daar zou ik het graag over hebben.</i></p>

	<ul style="list-style-type: none"> <li>- <b>Waarom heb jij deze collega in het midden geplaatst?</b></li> <li>- In hoeverre is deze collega van belang voor de communicatie in het team?</li> <li>- Kun jij de sterke punten noemen van deze collega in het team?</li> <li>- En de minder sterke punten?</li> <li>- <b>Waarom sta jij waar jij staat in het team op deze tekening?</b></li> <li>- In hoeverre ben jij van belang voor de communicatie in het team?</li> <li>- Kun jij jouw sterke punten noemen in dit team?</li> <li>- En de minder sterke punten?</li> <li>- <b>Wat maakt jou uniek in dit team?</b></li> <li>- <b>Kun jij de samenwerking in dit team omschrijven voor de communicatie training?</b></li> <li>- Kun jij iets zeggen over het gevoel van veiligheid in dit team?</li> <li>- Kun jij iets zeggen over het onderlinge vertrouwen in dit team?</li> <li>- Kun jij iets zeggen over de manier van communiceren van dit team?</li> </ul>
<p><i>Naar aanleiding van de communicatie training met Rob Zigter zijn de rollen van jou en je team genoten inzichtelijk gemaakt met behulp van een kleuren model.. Elk prikbord vertegenwoordigt een team rol. Verdeel jezelf en jouw team leden over de verschillende team rollen.</i></p>	
Tijdens training DiSC-model	<ul style="list-style-type: none"> <li>- <b>Kun jij mij vertellen hoe jij de training met Rob Zigter hebt ervaren?</b></li> <li>- Wat heb je geleerd?</li> <li>- Wat heeft jullie team er volgens jou van geleerd?</li> <li>- Hoe voelde je je tijdens de training?</li> <li>- Wat is er besproken tijdens de training?</li> </ul> <p><i>Er volgen nu een aantal vragen over het kleuren model.</i></p> <ul style="list-style-type: none"> <li>- <b>Wat vind jij van het kleuren model?</b></li> <li>- <b>Welke kleur ben jij volgens het model?</b> <ul style="list-style-type: none"> <li>- In welke eigenschappen herken jij jezelf?</li> <li>- In welke eigenschappen herken jij jezelf niet?</li> </ul> </li> <li>- <b>Zijn er andere kleuren die ook bij jou passen?</b> <ul style="list-style-type: none"> <li>- Kun je uitleggen waarom deze kleuren ook bij jou passen?</li> <li>- Herkenbare eigenschappen van andere kleuren?</li> <li>- Niet herkenbare eigenschappen van andere kleuren?</li> </ul> </li> <li>- <b>Welke rol heb jij volgens je teamleden in je team?</b> <ul style="list-style-type: none"> <li>- In welke eigenschappen herken jij jezelf?</li> <li>- In welke eigenschappen herken jij jezelf niet?</li> </ul> </li> <li>- <b>Hoe voelde het om een kleur met bijbehorende</b></li> </ul>

	<p><b>eigenschappen te krijgen?</b></p> <ul style="list-style-type: none"> <li>- Wat vind jij er van dat andere collega's weten welke kleur en eigenschappen jij hebt?</li> <li>- Wat vind jij ervan dat je weet welke kleur en eigenschappen jouw team leden hebben?</li> </ul>
<p><i>De communicatietraining is nu alweer een tijdje achter de rug en voor de hele afdeling is nu duidelijk dat iedereen een kleur heeft.</i></p>	
Na DiSC-model	<ul style="list-style-type: none"> <li>- <b>Welke invloed heeft de training van Rob Zigter gehad op jouw team?</b> <ul style="list-style-type: none"> <li>- Kun jij dit toelichten met voorbeelden?</li> <li>- Is de verandering positief of negatief en waarom?</li> </ul> </li> <li>- <b>Wordt er nu op een andere manier gecommuniceerd in jullie team?</b> <ul style="list-style-type: none"> <li>- Door jou?</li> <li>- Door team genoten?</li> <li>- Waarom wel/niet?</li> </ul> </li> <li>- <b>Hoe ga jij nu om met jouw verschillende collega's?</b> <ul style="list-style-type: none"> <li>- Blauwe collega's?</li> <li>- Verschil voor en na de training?</li> <li>- Rode collega's?</li> <li>- Verschil voor en na de training?</li> <li>- Groene collega's?</li> <li>- Verschil voor en na de training?</li> <li>- Gele collega's?</li> <li>- Verschil voor en na de training?</li> </ul> </li> <li>- <b>Heeft het gebruik van het kleuren model een meerwaarde voor jou?</b> <ul style="list-style-type: none"> <li>- Kun je dit uitleggen?</li> <li>- Hoe draagt het model bij aan de samenwerking in het team?</li> <li>- Hoe draagt het model bij aan de veiligheid in het team?</li> <li>- Hoe draagt het model bij aan het vertrouwen in het team?</li> <li>- Hoe draagt het model bij aan de communicatie in het team?</li> </ul> </li> <li>- <b>Waarom ben jij uniek in dit team als je kijkt naar het kleuren model?</b></li> <li>- <b>Waarom is het kleuren model voor jou wel/niet een hulpmiddel?</b></li> </ul>

Afronding interview:

Nogmaals benoemen anonimiteit en vertrouwelijkheid benoemen.

- Wil je nog iets toevoegen?
- Heb je nog aanvullende opmerkingen?
- Dank je wel voor je tijd en hulp.



### Appendix 3: Code scheme

2014-03-26 codeerschema master thesis Debbie Geissler

Hoofdthema	Subthema	Definitie
<b>A. Effecten van de communicatie training</b>	a. Verschil in communicatie in het algemeen voor en na de training	Manier van communiceren, manier van reageren, verlopen van de communicatie voor en na de training
	b. Verschil in communicatie tijdens teamoverleg voor en na de training	Manier van overleggen, problemen tijdens overleggen, actiepunten, verandering, verlopen van overleg voor en na de training
	c. Verschil in samenwerking voor en na de training	De ontwikkeling van het team, verlopen van de samenwerking voor en na de training
	d. Verschil in veiligheid en vertrouwen voor en na de training	Gevoel van veiligheid in het team, onderlinge vertrouwen voor en na de training
	e. Verschil in feedback geven en ontvangen voor en na de training	Hoe wordt er feedback gegeven, wat wordt er gezegd over feedback geven
	f. Model als hulpmiddel	Hoe draagt het model bij? Invloed, meerwaarde, toepasbaarheid, hulpmiddel.
<b>B. Identification and categorization process</b>	a. Gekleurd zijn	Hoe voelt het om gekleurd te zijn? Mening over gekleurd zijn.
	b. Herkenning in rode eigenschappen	Omschrijving van de kleur rood
	c. Herkenning in gele eigenschappen	Omschrijving van de kleur geel
	d. Herkenning in blauwe eigenschappen	Omschrijving van de kleur blauw
	e. Herkenning in groene eigenschappen	Omschrijving van de kleur groen
	f. Omschrijving uniek voor de training	Op welke manier uniek, onderscheiden van anderen
	g. Omschrijving uniek na de training	Op welke manier uniek, onderscheiden van anderen ook op basis van model en kleur
	h. Kenmerken van hoofdpersonen (team prototypes)	Welke bijdrage leveren hoofdpersonen aan de communicatie en teamontwikkeling? Sterke punten, zwakke punten.
	i. Kenmerken van bijpersonen	Welke bijdrage leveren bijpersonen aan de communicatie en teamontwikkeling? Sterke punten en zwakke punten.
<b>C. Organisatie informatie</b>	a. Evaluatie van de training	Ervaringen en meningen gericht op de training en de trainer

## Appendix 4: First round Cohens Kappa results

### First round total

Debbie \* Michelle Crosstabulation

Count		Michelle															Total
		8	10	13	14	16	17	18	19	23	24	29	34	48	49	58	
Debbie	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	13	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	14	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
	17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	19	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
	22	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	25	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	27	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	34	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	47	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	53	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total		1	2	1	1	1	1	1	2	1	1	1	1	1	1	1	17

Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	.502	,118	9,092	,000
N of Valid Cases		17			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**First round theme A****Debbie \* Michelle Crosstabulation**

Count		Michelle					Total
		18	24	29	49	58	
Debbie	19	1	0	0	0	0	1
	25	0	1	0	0	0	1
	27	0	0	1	0	0	1
	47	0	0	0	1	0	1
	60	0	0	0	0	1	1
Total		1	1	1	1	1	5

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>
Measure of Agreement	Kappa	.000	,000	.
N of Valid Cases		5		

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**First round theme B****Debbie \* Michelle Crosstabulation**

Count									
		Michelle						Total	
		10	13	14	17	19	23		34
Debbie	10	2	0	0	0	0	0	0	2
	13	0	1	0	0	0	0	0	1
	14	0	0	1	0	0	0	0	1
	17	0	0	0	1	0	0	0	1
	19	0	0	0	0	2	0	0	2
	22	0	0	0	0	0	1	0	1
	34	0	0	0	0	0	0	1	1
Total		2	1	1	1	2	1	1	9

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	.870	,118	6,547	,000
N of Valid Cases		9			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**First round theme C****Debbie \* Michelle Crosstabulation**

Count

		Michelle			Total
		8	16	48	
	8	1	0	0	1
Debbie	14	0	1	0	1
	53	0	0	1	1
Total		1	1	1	3

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	.250	,153	1,732	,083
N of Valid Cases		3			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

## Appendix 5: Second round Cohens Kappa results

### Second round total

Debbie \* Michelle Crosstabulation

Count		Michelle															Total
		8	10	13	14	16	17	18	19	23	24	29	34	48	49	58	
		8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
		13	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
		14	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
		16	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
		17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
		18	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
		19	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
		23	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
		24	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
		29	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
		34	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		48	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
		59	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
		Total	1	2	1	1	1	1	2	1	1	1	1	1	1	1	17

Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	.874	,083	13,444	,000
N of Valid Cases		17			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Second round theme A****Debbie \* Michelle Crosstabulation**

Count		Michelle					Total
		18	24	29	49	58	
Debbie	18	1	0	0	0	0	1
	24	0	1	0	0	0	1
	29	0	0	1	0	0	1
	48	0	0	0	1	0	1
	59	0	0	0	0	1	1
Total		1	1	1	1	1	5

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	,545	,204	3,651	,000
N of Valid Cases		5			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Second round theme B****Debbie \* Michelle Crosstabulation**

Count		Michelle							Total
		10	13	14	17	19	23	34	
Debbie	10	2	0	0	0	0	0	0	2
	13	0	1	0	0	0	0	0	1
	14	0	0	1	0	0	0	0	1
	17	0	0	0	1	0	0	0	1
	19	0	0	0	0	2	0	0	2
	23	0	0	0	0	0	1	0	1
	34	0	0	0	0	0	0	1	1
Total		2	1	1	1	2	1	1	9

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	1,000	,000	7,022	,000
N of Valid Cases		9			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Second round theme C****Debbie \* Michelle Crosstabulation**

Count

		Michelle			Total
		8	16	48	
Debbie	8	1	0	0	1
	16	0	1	0	1
	48	0	0	1	1
Total		1	1	1	3

**Symmetric Measures**

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	1,000	,000	2,449	,014
N of Valid Cases		3			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

## Appendix 6: Third round Cohens Kappa results

### Third round total

Debbie \* Michelle Crosstabulation

Count		Michelle														Total
		8	10	13	14	17	18	19	24	29	34	39	48	49	58	
Debbie	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	13	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	14	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	17	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	18	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	19	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	24	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	29	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	34	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	39	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	48	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
	59	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	Total	1	2	1	1	1	1	2	1	1	1	1	1	1	1	16

Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	.865	,088	12,463	,000
N of Valid Cases		16			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.



## Third round theme A

Debbie \* Michelle Crosstabulation

Count		Michelle						Total
		18	24	29	48	49	58	
Debbie	18	1	0	0	0	0	0	1
	24	0	1	0	0	0	0	1
	29	0	0	1	0	0	0	1
	48	0	0	0	1	1	0	2
	59	0	0	0	0	0	1	1
Total		1	1	1	1	1	1	6

## Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	,613	,199	4,036	,000
N of Valid Cases		6			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

## Third round theme B

Debbie \* Michelle Crosstabulation

Count		Michelle							Total
		10	13	14	17	19	34	39	
Debbie	10	2	0	0	0	0	0	0	2
	13	0	1	0	0	0	0	0	1
	14	0	0	1	0	0	0	0	1
	17	0	0	0	1	0	0	0	1
	19	0	0	0	0	2	0	0	2
	34	0	0	0	0	0	1	0	1
	39	0	0	0	0	0	0	1	1
Total		2	1	1	1	2	1	1	9

## Symmetric Measures

		Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Measure of Agreement	Kappa	1,000	,000	7,022	,000
N of Valid Cases		9			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Third round theme C****Debbie \* Michelle Crosstabulation**

Count

	Michelle	Total
	8	
Debbie 8	1	1
Total	1	1

**Symmetric Measures**

	Value
Measure of Agreement	Kappa not possible <sup>a</sup>
N of Valid Cases	1

a. No statistics are computed because Debbie and Michelle are constants.