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The relationship between the amount of FtF-interaction and conflict in virtual teams: The moderating role of a shared identity

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ABSTRACT

The purpose of this thesis was to study the influence of the amount of face-to-face interaction on task and relationship conflict, especially in teams with a shared identity. Data was collected from 332 respondents, who are members in a team in real life. Results show that the amount of face-to-face interaction had a significant negative impact on relationship conflict and a significant positive impact on task conflict. The model with team identification as a moderator was significant only regarding task conflict and not relationship conflict.

Key-Words: *Virtual teams, amount of face-to-face interaction, team identification, task conflict, relationship conflict*

RESUMO

O propósito desta tese foi estudar a influência da interação pessoal e os conflitos de relacionamento, durante uma experiência, especialmente em equipas com identidades similares.

Foram entrevistados 332 membros de uma equipa que opera como tal na vida real. Os resultados mostram que a interação pessoal entre membros da equipa tem um impacto negativo no conflito do relacionamento, contudo o impacto é positivo quando o conflito surge durante a tarefa a executar. Identificação da equipa como moderador foi significativo para o modelo apenas para o conflito de tarefas.

Palavras-chave: *Equipes virtuais, Identificação da equipa, Quantidade de interação face-to-face, Conflito de tarefas, Conflitos de relacionamento*

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1. INTRODUCTION

"You cannot build network organizations on electronic networks alone… If so, …we will probably need an entirely new sociology of organizations." (Nohria & Eccles, 1992)

Because computer-mediated communication nowadays makes it extremely easy for all of us to contact each other quickly, teams no longer have to be physically in the same place to work together. For many modern organizations it has become a norm that team members are globally distributed, especially since new communication modalities, such as work process design and time cost reduction, occurred (Cheshin, Kim, Bos Nathan, Ning, & Olson, 2013).

It happens that people never even get the chance to meet in person and only work together for a short period of time on one project. Hence, these groups are more likely to be some loosely coupled individuals, chosen task-related, rather than a real team (Harkiolakis, 2017).

In general, teamwork has to overcome a lot of challenges in order to be successful and efficient in the end. However, the building of a connection that leads to trust, reliability and team identification will be even harder with the lack of physical attendance. Due to missing body language and social cues (Daim, Ha, Reutiman, Hughes, Pathak, Bynum & Bhatla, 2012) it may be more difficult to create close ties within a team, where individuals feel that they share some characteristics with each other. The lack of this identity could then lead to communication problems (such as misattributions of bad intentions towards others, misinterpretation of the message) and conflict in the team. Hence, higher involvement of face-to-face (FtF) communication could be an important key factor to improve team identification between members. Because it is argued, that effective communication in a team is crucial for high performance, experienced team leaders and organizations recommend to reduce challenges with some face-to-face interaction (Harkiolakis, 2017).

This is important, because since communication and cooperation in virtual teams is mostly not happening via face-to-face anymore, but through certain virtual communication channels, it requires new skills from team members. These skills include not only technique-orientated hard skills, but also corresponding management and other soft skills. Since this specific topic is not that much studied yet, there are many different opinions on how to behave best in virtual teams, so they can identify with the team and build connections. A shared identity in virtual teams might have a crucial influence on the relationship between the amount of face-to-face interaction and the degree of conflict (task and relationship related).

Thus, the question that arises here and will be further discussed is: **How does team identification moderate the relationship between the amount of face-to-face interaction and task/relationship conflict in virtual teams?**

More detailed evaluation will take place in the following literature review (Section 2) and the survey analysis presented later (Section 3).

2. LITERATURE REVIEW

This Chapter provides an overview about existing theories on virtual teams, team identification and conflict (task and relationship). It includes definitions of the keywords and how they are connected.

2.1. Teams

In response to competition, teamwork in organizations increasingly is the norm. They are valuable and irreplaceable nowadays, as they are adding knowledge and creativity, increasing the collecting of ideas and improving commitment as well as overall motivation (Jehn & Mannix, 2001). Typically, organizations consist of many sections of smaller teams on different levels and they contribute to the organization's success by combining their skills and viewpoints (Jehn et al., 2001).

For a better understanding of the core of this paper, the starting point is the characterization of a team. Asking the dictionary about a definition for a team, it will give a very loose description: "A group of players forming one side in a competitive game or sport." (Oxford dictionary). A more precise clarification would be that a team consists of at least two people who work together on a specific task or project. Cohen and Bailey (1997) describe a team as a "collection of individuals who are interdependent in their tasks, who share responsibilities for outcomes, who see themselves and are seen by others as an intact social entity, embedded in one or more larger social systems and who manage their relationships across organizational boundaries". Salas, Cooke and Gorman (2010) describes a team as "a set of two or more individuals interacting adaptively, interdependently and dynamically towards a common and valued goal." Besides, every single member is assigned to a certain part and one team has a "limited life span". Furthermore, they mention that there are several types of teams, mainly the action team, the production team and the management team. All of them require specific processes and measurements in order to work most effective (Salas, 2010). They additionally differentiate between two approaches: the functionalistic and the interpretative perspective

Another definition highlights three key factors that define a team. First of all, it consists mostly of a small number of people with complementary skills. A second feature is the pursue of common goals and the last one is sharing responsibilities in order to achieve these goals. This is important for members who hold themselves mutually accountable (Katzenbach & Smith, 1993).

Work teams can be found in organizations in different areas such as project management, research and development (R&D) and management, for example (Cohen et al., 1997). Project-related teams are typically time-limited and members come from a various range of disciplines. R&D teams are members from diverse departments of an organization. After completing the task, they usually go back to their earlier position or are allocated to a new team (Cohen et al., 1997). Especially in organizations, teams have become a basic unit, irreplaceable and opportunities nor challenges can be solved without them. The biggest challenge for teams is performance, for instance service, changes, competitive threats and environmental limitations. With multiple skills, experiences and judgements they are likely to achieve better outcomes than individuals, as these phenomena make it easier to overcome confrontations quicker and in a more effective way (Katzenbach et al., 1993).

On the other hand, authors emphasize that high-performance teams are rare. This is mostly due to the need of high personal commitment, which is not easy to handle nor control (Katzenbach et al., 1993). Over the past years, the traditional work group has evolved to today's virtual teams. This will be explained in the next section.

2.2. Virtual Teams

Considering a growing number, virtual teams are more and more studied, which is why there are many different suggested definitions. While Teamwork plays an important role, and is a fixed component in organizations nowadays, the face-to-face aspect of traditional working interactions has underwent an immense transormation (Lipnack & Stamps, 1999). The revolution in telecommunications has broken organizational boundaries and allows them to adopt new working practices and models. This flexibility gives companies the possibility to work on tasks or projects in a way that would not have been possible before (Lipnack et al., 1999).

In their article, Fiol and O'Connor (2005) emphasize that the main characterizations of any virtual team is the number and frequency of face-to-face interaction between team members.

Like any other team, virtual teams are groups of people who interact to complete interdependent tasks and fulfill a common goal. In contrast to conventional teams those virtual team members work as people who "transcend distance, time zones and organizational boundaries, because communication through electronic devices and other digital technologies allows people to work together at a distance" (Lipnack et al., 1999). This gives organizations a chance to choose their best employees task-related, regardless of their physical or

organizational locations, in order to enhance the quality of decision-making (Martins, Gilson, & Maynard, 2004). Thus, they are much more flexible in a cost-effective manner (Aubert & Kelsey, 2003) and help organizations in order to fight the disturbances of the market and face competition (Malhotra, Majchrzak & Rosen, 2007).

Another definition about globally distributed teams states them as: "… we define a global virtual team to be temporary, culturally diverse, geographically dispersed, electronically communicating work group …" (Kristof, Brown, Sims & Smith, 1995).

Similar but more detailed is the description by Jones, Ouyng and Pace (2005): "A team with members that are geographically distributed across more than one location. Virtual teams can include geographically dispersed teams, where team members live and work in different locations/states/countries from each other; teams with telecommuters, teams formed horizontally across vertical organizations (project teams, task forces, etc.); or teams formed across different companies."

The face-to-face contact may be the most important feature in the characterization of virtual teams, because even if teams are geographically close, they still might never meet and thus do not differ from geographically distributed teams (Fiol et al., 2005).

Although there are some variances, there is an overlap in most core definitions about virtual teams (Martins et al., 2004). Most of them focus on people in a working environment in which they still have their regular meetings and deadlines but the communication differs decidedly. Teams can choose from a wide range of technologies in order to substitute face-to-face communication. This so-called computer mediated communication (CMC), that is used in virtual teams, can be divided in synchronous communication and asynchronous communication (Ehsan, Mirza, & Ahmad, 2008). Synchronous communication happens in real time and includes technologies like videoconferencing, telephone conferencing, calls and instant messaging, for instance. Asynchronous communication, on the other hand, implies that interactions do not take place simultaneously. Examples are mainly text-based like emails, discussion forums or blogs (Ehsan et al., 2008). Kirkman and Mathieu (2005) identified three main dimensions of virtuality in teams: the extent to which members use virtual tools to communicate (email, videoconferencing, work tools, etc.), the amount of informational value provided by such tools and the degree of synchronicity of virtual contact amongst members (Kirkman et al., 2005).

A number of different models and frameworks about team functions has been evolved over the years. One of the most common models is the IPO-Model from Mc Grath (1964). It outlines that team inputs are converted to team outputs through team interactions and

processes (Marks, Mathieu, & Zaccaro, 2001; Martins et al., 2004). While this version was a good starting point, many researchers evolved and refined it until today.

One of these further refined models was developed by Marks, Mathieu and Zaccaro (2001). They mainly argued that teams work in temporal cycles, which they called "episodes". The main episodes are Input (I), Process (P) and Outcome (O). When one of them ends, another one starts and the output from the previous one, will give an input for the next one. They add that team processes include member's actions (e.g. mission analysis, team monitoring, conflict management) and therefore prefer to distinguish them from "emerged states", i.e. cognitive, motivational and affective collective states (such as trust and collective efficacy).

In another article, Martins et al. (2004) state that the key characteristic of virtual teams is

the degree of virtualness and the extent of usage of certain technologies. Their model echoes and further develops Marks' and colleagues' (2001) proposal.

By the comparison between traditional teams and virtual teams, they show how virtualness modifies interaction amongst members.

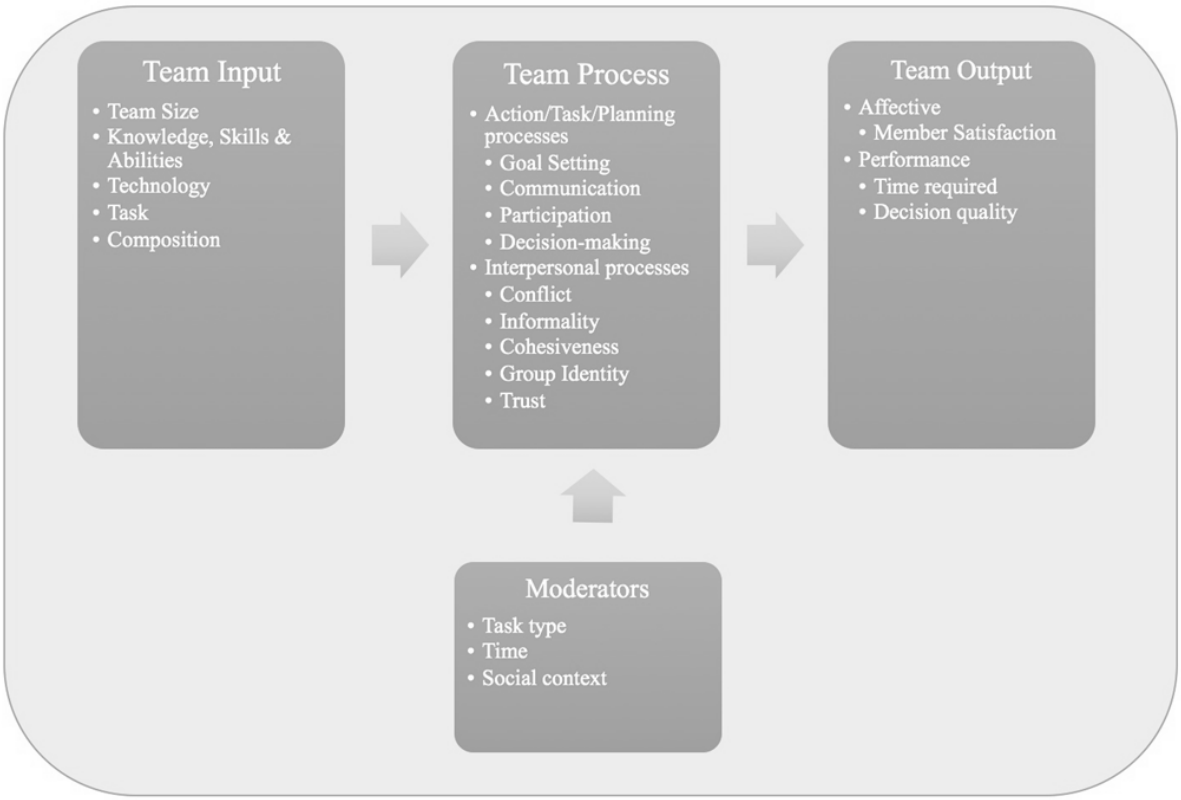

Figure 1 The IPO Model of virtual teams (Martins et al., 2004, adapted)

The Input (I) shows the starting condition of the team. In case of a virtual team it is about the resources, design and compositional characteristics of the team. This includes for instance communication technologies, task assignments and group composition. Process (P) can be

mainly divided in task and interpersonal processes and represents the interpersonal dynamics between members in order to fulfill tasks and achieve goals. In this phase, we find planning processes, common goal setting and action processes such as performance of group tasks, communication, participation, coordination and monitoring of the overall progress but also interpersonal processes (e.g. conflict, tone of interaction, cohesion, affect and social integration) (Martins et al., 2004).

It is argued that less face-to-face interaction and the accompanying lack of social cues (such as body language, tone of voice, facial expressions) tend to influence a rich communication negatively and can lead to less attention to common goals over individual ones (Huysman & Wulf, 2004). Furthermore, it was found that building a shared mission and establishing a unified sense of purpose might be harder for members in virtual teams, due to diminished interactions of the members compared to traditional teams (Blackburn, 2003). Besides inputs and outputs the model proposes moderators that influence the overall effectiveness. The moderators include factors such as task type, time spent working on it and the social context in the team (Martins et al., 2004).

Outcome (O) focusses on team affective outcomes like member satisfaction and on performance outcomes such as quality, effectiveness and timing (Martins et al., 2004).

As already mentioned, in some cases, people never get to meet, but work together on important topics for a while. Even if all the benefits seem highly promising, virtual team members now have to deal with task allocations, decision-making and conflict in a different and also sometimes more complicated way. One of the reasons for failing to be effective can be that virtual team members do not adjust to these changes and overlook the implications of the obvious (Lipnack et al., 1999).

Virtual work differs from traditional team work in many ways. RW3 Cultural Wizard (2012), an international training consultancy, named one of the main challenges. As human beings, people are used to rely on gestures, language signs and multiple senses in their interpersonal communication. In virtual teams, where people have different work styles, backgrounds or maybe even cultures, there is less possibility to take advantage of this. The information we receive must be sent, perceived and translated in the right way in order to understand the full context of what people want to communicate (RW3 CultureWizard, 2012). In their study, the respondents named besides the difficulty in expressing opinions and reading non-verbal cues, additionally the building of relationship and trust, a sense of isolation as well as the management of conflict as main challenges a virtual team can face (RW3 CultureWizard, 2012).

In his research Hayward (2002) refers to this as “social presence”. Social presence is “the ability of a communication medium to allow a group member to feel the presence of the other group members and the overall feeling that the group is jointly involved in communicative interaction” (Short & Christie, 1976 cited in Hayward, 2002). Regarding the communication medium, social presence is a functionality of channels to transfer rich information such as facial expressions, gaze, gestures, physical proximity (Hayward, 2002). These verbal cues can explain the importance, validity and the extent of agreement regarding the received or sent information. It is important that the chosen communication medium is able to transfer enough socio-emotional content and social presence in order to avoid misinterpretation and conflict (Hayward, 2002).

In addition to these non-verbal challenges, Hinds and Mortensen (2005) state that another challenge in virtual teams is less frequency and continuity of communication. However, they outline that frequent and spontaneous communication is essential as it “mitigates the effect of geographical dispersion of the team members in regards to both interpersonal and task conflict”.

2.3. Conflict

The dependent variable in this study is conflict. Since the conclusions of previous studies about conflicts in virtual teams vary according to their type of conflict, it is necessary to take a closer look at this. Even though working in teams has many advantages and increasingly is the norm, as described before, they also have liabilities. Due to varying taste, style, preferences and distribution of judgement and interpretation amongst members (De Dreu & Weingart, 2003), teams can be highly susceptible for conflict (Mortensen & Hinds, 2001). Distributed teams tend to face management and coordination problems, trust issues, do not meet performance expectations and build unhealthy subgroup connections even more. These and many other phenomena tend to result in conflict (Hinds et al., 2005). This mostly has negative consequences on performance (Jehn et al., 2001) and can lead to unsatisfied members who show less commitment (Hinds & Mortensen, 2005).

“Conflict on teams is defined here to mean a struggle, or state of disharmony or antagonism or hostile behaviors, resulting from contradictory interests, needs, or beliefs, or mutually exclusive desires”, is one of the definitions of conflict on teams by Halverson (2008).

Another definition from Levi (2001) states that “conflict is the process by which people or teams have taken some action that has a negative effect on their interest. He further mentions

that conflict is natural in every team and can even be good, if handled in the right way. Teams without conflict often suffer from “unhealthy agreements”, a dominating leader who makes all the decisions, does not allow discussions or does not want to improve. In working teams, conflict. The sources of conflict in organizations includes confusion about for example personality or opinion differences as well as poorly managed meetings or competitive reward systems, The difficult part is however to identify the right source and how to manage it then (Levi, 2001).

Boulding (1963) defines conflict “as an awareness on the part of the parties involved of discrepancies, incompatible wishes, or irreconcilable desires” (cit .in Jehn et al., 2001). In the article, it is differentiated between three types of conflicts: Relationship, task and process conflict (Jehn et al., 2001). Because contribution is mainly through social input and task input (De Dreu et al., 2003), this paper will focus on relationship and task conflict.

Relationship or interpersonal conflict can be characterized as perceived incompatibilities and contradictory personalities amongst members. This type of conflict is often expressed through emotions such as anger, frustration and distrust (Hinds et al., 2005). Members sometimes dislike each other and get annoyed easily. Concrete examples can be about personal taste, political preferences, different values and interpretation of facts (De Dreu et al., 2003).

Task conflict is manifested by different opinions and perspectives on how the work should be done. This type of conflict is more likely to be reflected by heated debates and other expressions and not so much by the intense personal feelings connected to relationship conflict. For instance, task conflict can be about distribution of resources, procedures, policies or judgements (De Dreu et al., 2003).

2.4. The link between the amount of face-to-face interaction and conflict

It rarely happens that all individuals in a team have a common purpose and agree on mutual goals right away. However, task conflict in the beginning can actually be a good thing. It is important to concentrate on the procedural and administrative features in the early stages of the interaction, so they can set, discuss and agree their further work and group norms, responsibilities and deadlines (Jehn et al., 2001). Every member has unique experiences, own values and expectations. In order to unite these, they have to overcome differences and make compromises. It is likely that this leads to a fight. The big challenge then, is to make it constructive for the whole team, instead of just ignoring it (Katzenbach et al., 2013). By focusing on the process and tasks in the beginning, groups tend to be more successful and

have less conflict in the end (Jehn et. al, 2001). The IMOI model from Ilgen, Hollenbeck, Johnson, & Jundt (2005) encourages this theory. It is a further development of the earlier named IPO Model and subdivides teamwork into three different stages (forming stage, functioning stage and finishing stage). In each of the phases interactions amongst team members change and it is suggested to carry out conflicts in the forming stage in order to experience openness to express themselves and have a successful discussion (Ilgen et al., 2005). Overall, research has shown that task conflict might increase the acceptance of various decisions in a team, support member's creativity and lead to successful decision-making (Martínez-Moreno, Zornoza, González-Navarro, & Thompson, 2012). Although task-related conflict may contribute to an overall successful performance, it can only do so when the team members work on solutions for the problems immediately. Because these disagreements are mostly not only based on facts but also include personal perceptions and opinions of members, they could otherwise easily turn into relationship conflict (Martínez-Moreno et al., 2012).

The Media Synchronicity Theory expresses that task performance could be improved when information needs fit a medium's richness (Dennis, Fuller, Valacich, 2008). That means for example, especially demanding tasks with various interpretation possibilities should better be transmitted via "rich" media (e.g. face-to-face meetings or video-conferences) while "lean media" (e.g. email) should only be used when ambiguity is low in order to avoid misinterpretation and miscommunication. For example, nodding the head can be much more meaningful and expressive than just sending a text with the words "I agree with you." (Dennis et al., 2008) It is further argued that working under the limited conditions of virtualness reduces the depth of discussion and the analysis of alternatives, whereas the time needed for making decisions will be increased. Cramton (2001) states that the information exchange in computer-mediated groups is often slower, uncompleted and more biased compared to face-to-face meetings. This results in misinterpretation, less participation and communication (Cramton, 2001). Thus, the richer the communication channel, the more opportunities team members might have to discuss different perspectives and to debate different points of view constructively and the more they might want to define the outcome and therefore engage in task conflict.

Hence, the first Hypothesis will be:

H1.1: The higher the amount of face-to-face interaction, the more task-related conflict team members will have.

Relationship conflict is different. While task-conflict is more likely to occur in the early stages of group forming, relationship conflict amongst members tends to take place in advanced stages. This is because members that do not know each other well tend to follow general politeness rules in the beginning, which keeps a lower interpersonal conflict-level (Jehn et al., 2001).

One source for relationship conflict is that people tend to first accuse others of making mistakes instead of placing the blame on themselves. Other causes can be varying personalities, attitudes and expectations amongst group members (Katzenbach et al., 2013).

Furthermore, the lack of information and communication has a negative impact on relationship building and therefore are main triggers for relationship conflict (Cramton, 2001).

Another study within the Medium- Richness Theory by Daft and Langel (1986), finds that the richer the medium, the better the accuracy of the information exchanged between members. This media-richness is dependent on the ability of the chosen medium to transfer social cues of interaction members as well as the extent of the immediate feedback (cit. in Ehsan et al., 2008). It concludes that Face-to-face communication is the richest medium and computer-mediated communication is only a leaner version that would hinder overall communication (Ehsan et al., 2008). Kock (2004) justified this theory with another theory, the Media Naturalness Theory. It implies that the human brain is most comfortable with using face-to-face communication because it was designed for it. Underlined by Darwinian theories, they purpose that this is the reason why humans developed interpersonal communication skills in the first place. Computer-mediated communication is consequently unnatural due to the lack of non-verbal cues existing in face-to-face communication such as facial expressions, tone of voice and body language. Hence, it requires higher mental effort and skills in order to be successful. When these cues are absent, it might lead to miscommunication and conflict (Kock, 2004). For example, communicating via email completely hides the sender's characteristics (Ehsan et al., 2008), emotional content and the person's real intent (Clutterbuck & Hussain, 2010). The emotional content specifically relates to the emotional tone (positive/negative), the type of emotion included (anger, pleasure) and also the intensity of the emotion (mild, strong). Additionally, the delay in response may interfere with emotional interpretation (Clutterbuck et al., 2010).

Face-to-face communication provides the social signals necessary for individuals to engage in crucial social exchange, like collaborative work. Therefore, face-to-face communication is therefore expected to be the superior method of communication for conflict

resolution, negotiation, developing relationships, and resolving situations of uncertainty (Dennis et al., 2008).

Concluding, the second Hypothesis will be:

H1.2: The higher the amount of face-to-face interaction, the less relationship conflict team members will have.

2.5. Team Identification as a moderator

Looking for definitions about collective team identification, it is defined as "emotional significance that members of a given group attach to their membership in that group." (Van der Vegt & Bunderson, 2005) as well as "how team members consider team goals as their own and feel psychologically intertwined with the group's fate" (Han & Harms, 2010), for instance. Hence, in order to develop a feeling of togetherness and membership with people who we group as part of ourselves, we need to identify ourselves as such a member of a team emotionally (Desivilya, Somech & Lidgoster, 2010).

The most common theory about social identity is from Tajfel and Turner (1979) and it focusses on understanding the psychological background of intergroup bias and conflict. The authors differentiate between two extremes of social behavior: the interpersonal and the intergroup behavior. The core assumption of the theory is that individuals usually are not in one of the two extremes, but somewhere in between. They categorize and define themselves in terms of a group they belong to. The person does not only have one personal self, but multiple identities, depending on their group memberships. Social identification can be defined as "a person's sense of belonging with a social category" (Tajfel et al., 1979).

Everyone has social categories to define themselves and other group members in order to differentiate shared similarities from others (Fiol et al., 2005). Team identification is a process by which members perceive themselves in terms of values, common goal setting, attitudes and behaviors they share with the group (Janssen & Huang, 2008).

Members tend to compare themselves and their teams with other groups (outgroups) to fulfill self-enhancement needs and reduce uncertainty through team identity and develop a sense of togetherness (Fiol et al., 2005; Han et al., 2010). In general, they view members from their own group (ingroup) more positively (Han et al., 2010), in order to preserve and develop a positive self-concept. Teams want to be seen as worthy and attractive by outsiders and insiders in order to fulfill these self-enhancement needs. It is claimed that teams with greater face-to-face interaction are more likely to develop a sense of togetherness regarding social cues, facial expressions, etc. (Fiol et al., 2005). Due to this lack of additional non-verbal and

paralinguistic cues, the transferred information is made much leaner and makes it harder for members to get to know and connect with each other in a personal way (Bouas & Arrow, 1995). Therefore, teams with face-to-face communication tend to have a higher shared identity (Martins et al., 2004).

As mentioned before there is a good deal of literature stating, that task conflict can be a positive type of conflict and can be constructive.

Drawing again on the basis of social identity theory (Tajfel et al., 1997), research has shown that a shared identity is often linked to more employee compliance, higher motivation, satisfaction and cohesion (Fiol et al., 2005). It is positively related to work attitudes and behavior and when members identify with their team, they tend to show more effort and a higher motivation to share skills, information, knowledges and other resources with group members (Desivilya et al., 2010) because now the team's success or failure becomes their own (Han et al., 2010). Also, it was found that with higher team identification comes higher task interdependence (Somech, Desivilya, & Lidogoster, 2009). Due to this interdependence, higher frequency of discussions, higher commitment and engagement towards positive outcomes, members could be more interested in defending their own interests regarding goals, possible structures and process.

Thus, the next hypothesis will be:

H 2.1. The negative relationship between face-to-face interaction and relationship conflict will be moderated by team identification, such that the higher the team identification, the stronger the association between face-to-face interaction and relationship conflict.

Referring to relationship conflict, one of the biggest challenges virtual teams may have to face is captured in the SIDE Model, originally from Spears and Lea (1994), standing for Social Identity model of Deindividuation Effects (cited in Ehsan et al., 2008). It illustrates the inconsistent impacts of anonymity and social presence on computer-mediated teams. Because of the lack of social cues, communication becomes more "deindividuated". This process has also been classified as a loss of identity (Ehsan et al., 2008).

Because building cohesion amongst each other is even more important in distributed teams (Fiol et al., 2005, Janssen et al., 2008), people tend to reduce uncertainty while meeting in person or communicating through rich media technologies (body language, smile, nods, gestures, …) (Fiol et al., 2005). Moore and colleagues (1999) found that without team identity it was more difficult for members to agree and cooperate with each other (cited in Han et al., 2010).

Mannix and colleagues (2002) defend that identification in virtual teams could help members to deal with conflict more effectively. It is more than important for a team, to find and define the common purpose. Consequently, they are more likely to meet challenges confidently knowing they have each other's trust and support, which will allow them to speak up and share their perspectives, even if they have a different point of view, without fear of interpersonal negative consequences (cited in Han et al., 2010).

H 2.2. The positive relationship between face-to-face interaction and task conflict will be moderated by team identification, such that the higher the team identification, the stronger the association between face-to-face interaction and task conflict.

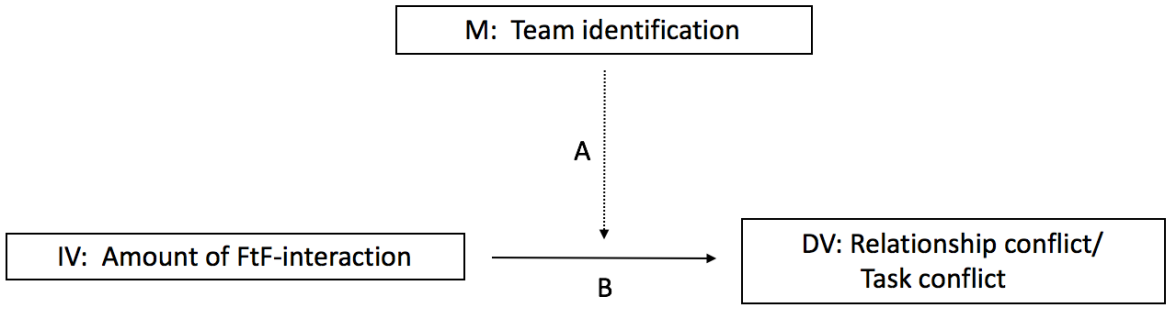

Figure 2 Moderation Model

3. METHODOLOGY

3.1. Measures

In order to see if team identification influences the relationship between the amount of face-to-face interactions and conflict, a survey was created, together with my team consisting out of myself and five other Master students at Católica Lisbon School of Business and Economics. The questionnaire was developed as an online survey via Qualtrics. The survey was created in English and afterwards translated into Portuguese. The study was addressed to team members by either email or hand delivery and all of the answered it individually and anonymously. The questionnaire covers 14 variables in total: Creativity, Transaction Processes, Adaption, Team Leadership, Team Identity, Transactive Memory Systems, Trust, Relationship Conflict, Task Conflict, Team Work Engagement, Effectiveness Perception, Team Viability, Satisfaction, Mulitcultural Experiences, Synchronicity Team, Demographics and Creative Industry.

The relevant variables for this study are: Team Identification, Relationship Conflict, Task conflict and Synchronicity Team. Hence, the raised data within the questionnaire can be classified in following variables:

Team Identification was recorded using a 10-item measure of identification on a 7-point scale (see table for items and scale anchors). The items covered various aspects from group self-esteem, self-categorization and commitment to the group (Ellemers, Kortekaas, & Ouwerkerk, 1999). This scale showed a good reliability (α= .85). This implies that 85% of the variability in scores represents the construct of interest and 15% is considered as random measured error. (M=5.3, SD=1).

Social Identity Items
Group self-esteem
I think my group has little to be proud of
I feel good about my group
I have little respect for my group
I would rather not tell that I belong to this group
Self-categorization
I identify with other members of my group
I am like other members of my group
My group is an important reflection of who I am
Commitment to the group
I would like to continue working with my group
I dislike being a member of my group
I would rather belong to the other group

Note. All questions were rated on a 7-point scale ranging from 1-7. Scale anchors were 1=Never, 2=Rarely, 3=Occasionally, 4=Sometimes, 5=Frequently, 6=Usually, 7=All the time

Table 1 Social Identity Items

Task Conflict was measured by using 3 out of 4 items from Jehn's (1995) Likert-type scales (Jehn, 1995), with the value of 1, indicating "Strongly disagree", as the lowest level of task conflict, 7 as "Strongly agree" and 4 as "Neither agree nor disagree". The items are about the extent to which members have disagreements and different opinions regarding tasks and were slightly adapted in this paper. For example, the questions "How much disagreement was there among the members of your group over their opinion?" and "How many disagreements over different ideas were there?" were merged to "Does there a conflict of ideas exist between team members?". The Question "How many differences about the content of decisions did the group have to work through?" was changed to "Do team members disagree about the content of decisions?" and "How many differences of opinion were there within the group?" was rendered as "Is there a confrontation of opinions about the decisions to be made?". Estimated reliability was $\alpha = .84$, which indicates that 84% of the variability in scores represents the construct of interest and 16% is considered as random measured error. (M=3.3, SD=1.3).

Relationship Conflict was evaluated as the extent to which members experienced personal trouble as well as interpersonal conflict also based on Jehn's (1995) Likert-type scales. Instead of 5 only 3 items were used and again they were slightly adapted and merged. Instead of "How much emotional conflict was there among the members of your group?", "How much anger was there among the members of the group"?, "How much personal friction was there in the group during decisions?", "How much were personality clashes between members of the group evident?" and "How much tension was there in the group during decisions?", it was asked "Are there personal conflicts between team members?", "Is there friction between team members?" as well as "Are personal conflicts evident?". Again, the scale started with the value of 1, indicating "Strongly disagree", as the lowest level of task conflict, 7 as "Strongly agree" and 4 as "Neither agree nor disagree". The scale showed a reliability of $\alpha = .88$. (M=2.9, SD=1.4).

Team Synchronicity: Items regarding the communication between team members were taken from the research paper of Dennis et al. (2008) and include "Face-to-Face", "Video Conference", "Telephone Conference", "What's App", "Voice Mail", "Fax", "E-mail" and "Other", where additional options could be mentioned. A total sum of 100% should be distributed amongst the 9 options according to the respondent's perception of the usage of media type in his/her team. The only one relevant for this study will be the amount of "Face-to-Face".

All used scales had satisfying Cronbach's alpha values (from .84 to .88).

Variable	Number of items	Cronbach's alpha
Team Identification	10	0,85
Relationship Conflict	3	0,84
Task Conflict	3	0,88

Table 2 Cronbach's alpha calculated for each study variable

3.2. Sample

For the implementation of this study a total number of 553 participants answered the questionnaire, of which 332 answers were valid. Questions 11.1-11.5 of the survey were used to identify the demographics of the participants. Several observations can be made from this initial group of responses.

The final sample had 59.4% female and 40.6% male respondents with ages ranging between 16 and 72 years (M=32.1, SD=11.1). The participants were mainly from Portugal (61.4%), followed by Austria (14.8%), Germany (6.0%), Spain (8.1%), France (7.5%) and Others (7.5%). More than half have a University degree (52.4%), 34% are post-graduates, 11.1% of respondents are in high-school, followed by 1.5% with basic education and 0.3% in primary school. Respondents worked in their team for a time period ranging from approximately 2 weeks up to 37 years (M=4.6, SD=6.9) and most of them were regular team members (81%) whereas 19% were team leaders. The sectors they were working in were widely varying in different areas (e.g. Auditing, Consulting, Fashion, Education, Tourism, Marketing, Health, …). Team members assigned 52.4% out of 100% to face-to-face communication on average (SD=23.8), followed by communication through E-mail (M=16, SD=16.2), What's App (M=14.2, SD=17.4), Telephone Conferencing (M=7.4, SD=10.5), Video Conferencing (M=6.2, SD=10.8), Facebook (M=1.44, SD=6.8) and a residual small percentage to Slack, Skype Voice Mail, Fax and other channels.

	N	Mean	SD	Minimum	Maximum
Face-to-Face	332	52.35	23.78	.00	100.00
Team Identity	321	5.34	.99	1.70	7.00
Relationship Conflict	328	2.86	1.41	1.00	7.00
Task Conflict	330	3.30	1.34	1.00	7.00

Table 3 Means, Standard deviations, Minimum and Maximum of all variables

3.3. Results

The collected data was analyzed in the SPSS Statistics Software 23. The analysis was conducted using regression analysis.

The following Table shows the correlations between all variables:

	1.	2.	3.	4.
1. Face-to-Face	1			
2. Team Identification	.052	1		
3. Relationship Conflict	-.139*	-.505**	1	
4. Task Conflict	-.131*	-.408**	.704**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4 Correlations between all variables

From the Table above, it can be concluded that there is a significant negative correlation between the amount of face-to-face communications and relationship conflict (, r=-.139, p<.05).

Furthermore, there is a significant negative correlation between the amount of face-to-face communications and task conflict (r=-.131, p<.05).

The first two hypotheses were tested with simple regressions of the dependent variables task conflict (H1.1.) and relationship conflict (H1.2.) on the independent variable percentage of face-to-face interaction. For the first hypothesis with task conflict as dependent variable, the model has a weak quality (R=.131). Face-to-face interaction accounts for 1.3% of the variation in task conflict (Adjusted R^2=.14) and the results show that face-to-face interaction predicts task conflict negatively and significantly ($F_{(1,328)}$=5.768, β=-.131, p<.05). Therefore, H1.1. was not supported, but instead the null hypothesis was accepted.

For the second one with relationship conflict as dependent variable, the model again has a weak quality (R=.139). Face-to-face interaction accounts for 1.6% of the variation in relationship conflict (Adjusted R^2=.016). The results show that face-to-face interaction predicts relationship conflict negatively and significantly ($F_{(1,326)}$=6.412, β=-.139, p<.05). Hence, H 1.2. is supported.

In order to analyze the moderation hypotheses, a hierarchical multiple regression was conducted. To test the hypothesis 2.1. with relationship conflict, in the first step, only two variables were concluded: face-to-face interaction and team identification. In order to avoid potentially problematic high multicollinearity with the interaction term, the variables were

centered and an interaction term between face-to-face and team identification was created (Aiken & West, 1991). This first model accounted for a significant proportion of the variance in relationship conflict ($R^2 = .265, F_{(2,316)}$=56.945, p<.001). Next, the interaction term between face-to-face and team identification was added to the regression model, which no longer accounted for a significant proportion of the variance in task conflict (R^2=.267, $F_{(3,315)}$=.697, p=.404). So, H2.1. was not supported.

	B	SE	t	p	95% CI	
1. Team Identification	-.708	.071	-9.933	.000**	-.848	-.568
2. Face-to-Face	-.006	.003	-2.025	.044*	-.012	.000
1.*2. Interaction	-.051	.061	-.835	.404	-.007	.003

Table 5 Moderation analysis results H2.1.

To test H2.2. with task conflict as an outcome, again in the first step, two variables were included: face-to-face interaction and team identification and in order to avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between face-to-face and team identification was created (Aiken & West, 1991). These variables accounted for a significant amount of variance in task conflict ($R^2 = .176, F_{(2,316)}$=33.776, p<.001). Next, the interaction term between face-to-face and team identification was added to the regression model, which accounted a significantly higher and negative proportion of the variance in task conflict than in the first step (ΔR^2=.026, $\Delta F_{(3,315)}$=10.057, p<.01, b=-.162). So, H2.2. was also not supported.

The results are summarized in the table below:

	B	SE	t	p	95% CI	
1. Team Identification	-.509	.070	-7.316	.000**	-.645	-.372
2. Face-to-Face	-.005	.003	-1.913	.057	-.011	.000
1.*2. Interaction	-.008	.002	-.3.171	.002*	-.013	-.003

Table 6 Moderation analysis results H2.2.

For the ease of use, an excel macro file created by Jeremy Dawson (2006) was downloaded online and used to plot the variables. Examination of the interaction plot showed that the relationship between face-to-face interaction and task conflict is moderated by team

identification, for lower levels of team identification (SD= -1, b = -0.013, $p < 0.001$) (Figure 3).

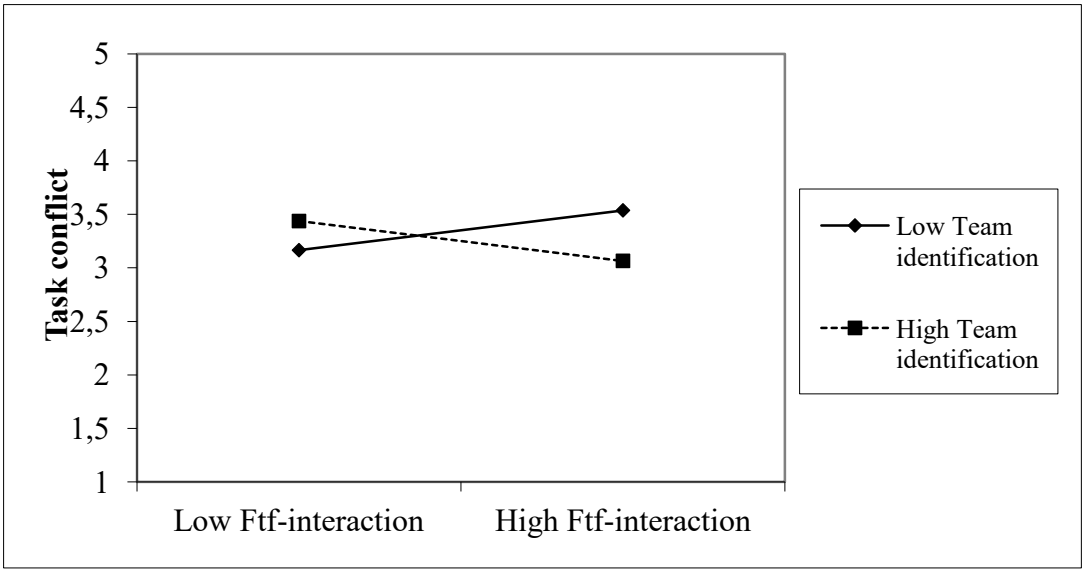

Figure 3 Interaction plot for H2.2.

4. DISCUSSION

This study extends the research on the effects of face-to-face interaction upon conflict, regarding the moderating role of team identification. Support in the first hypothesis was only observed for relationship conflict (H1.2.): A higher percentage of time communicating face-to-face leads to less relationship conflict between team members. In contrast to our predictions, results from testing H1.1. showed that the more teams interact face-to-face, the lower levels of task conflict will be, as well. Going back to the correlation table in the result section, this could be explained by the fact, that both types of conflicts are highly positively correlated ($r = .704$, $p<.001$). Hence, it is not sure, if survey respondents really differentiated between the two types of conflict. Looking at previous research, it is proven that these two types of conflicts are related (de Wit et al. 2012; Simons & Peterson, 2000). Some authors even state that task conflict is one of the main triggers for relationship conflict (Jehn, 1995; Simons et al., 2000). Jehn's (1997) arguments that team members constantly evaluate, interpret and assess each other's behavior and decisions and sometimes eventually can reach a point where objective task conflicts turn into personal attacks or hidden agendas. They start to receive objective task conflict as criticism and hence the discussion result in relationship conflict. Another possible explanation for the relationship is inappropriate behavior. Due to different tactics, debate methods and conflict management people might feel hurt, personally attacked, humiliated or offended by others, thus again leading to relationship conflict (Simons et al., 2000). Another explanation refers to disagreements about task issues amongst group members (Jehn, 1997).

Furthermore, because transmission velocity in face-to-face communication is high, members might have less time to analyze and discuss different perspectives (Schouten, van den Hooff, & Feldberg, 2016). For example, shy people might not have enough time to think and may feel less at ease to share their opinions. Also, status differences might have a stronger impact (e.g. to silence "low status people" in discussions). Besides, low rehearsability and reprocessability makes it more difficult to maintain record of all conversations than in an Email conversation. This could be another factor leading to different opinions and conflict (Schouten et al., 2016).

Regarding the moderating model, the first hypothesis H2.1. could not be supported, since the interaction between the amount of face-to-face interaction and team identification is not significant.

For H2.2. it was found a moderating role of (low levels of) team identification in the relationship between face to face interaction and task conflict, but in the opposite direction

than expected: lower levels of team identification seem to suffer the negative impact of face-to-face interaction on task conflict. Therefore, when members identify less with their team, they might feel less pressure for conformity and general approval. Because they did not build connections they might need less validation from the others and therefore feel more at ease and encouraged to give different ideas and point of views. They may feel more assertive and less interested on managing relationships amongst each other and are more focused on the task and outcome.

4.1. Practical Implications, Limitations and further Suggestions

From this study, several practical implications for the real world may be drawn. The study has shown that a shared identity as well as some face-to-face interaction influence the levels and types of conflicts in teams in different ways. The foremost implication this might have on the industry and companies is how team members should be trained and prepared for working in a virtual team in the most efficient way. Due to new communication technologies nowadays, working in globally distributed teams seems so natural and brings so many advantages to companies, that the barriers, that come with it, sometimes are forgotten easily. Traditional training tools might not be appropriate in dealing with geographically distributed teams anymore. Hence, it would be important to pay more attention to new and different training tools and methods in order to deal with emerging problems properly. As already proposed by Fiol and O'Connor (2005) for example, one way could be to work with so-called "hybrid teams". These teams are only partially distributed and include face-to-face meetings from time to time. Because virtuality may be important for brainstorming, generating ideas and short updates from time to time during the project, whereas face-to-face interaction really could be useful for building identity and positive affective interactions. On the basis of this, there is still enough room to further investigate the impact of the degree of virtualness, of including face-to-face interaction and a shared identity.

One of the limitations of this study might have been to not include synchronicity and asynchronicity of communication, instead of "just" the amount of face-to-face interactions. Over time, possibilities of how to communicate in virtual teams have further developed. It should be noted how usage of different communication channels influence teams. Because there are so many ways for virtual teams to communicate nowadays, that you cannot simply talk about face-to-face and the opposite "virtualness" as a whole anymore. This would also be a possibility for further research. For example, how the degree of virtualness influences the conflict or even the overall performance and effectiveness of a team: it may happen that the

time lag between sending, receiving and responding to a certain message, which mostly influences the amount of conflict in teams, regardless of their degree of identification.

Further limitations are the cross-sectional nature of the study, as well as that the survey was created by six students with similar but still different topics, which led to a substantial barrier regarding the length. Over 200 respondents quit the survey within the first 50% of the whole questionnaire and in the given feedbacks, it was often written that the survey was too long and too broad. Because the questions and statements were often formulated similar and reported answered through self-reporting, answers may have suffered from common method bias and one had to rely on the respondent's honesty.

Lastly, it should be noted that this study was performed at an individual level. Further studies should also include the team perspective in an extra survey or focus groups, in order to get a more detailed and clearer output.

5. CONCLUSION

The aim of this study was to find the influence of a common identity on the relationship of the amount of face-to-face interaction and the degree of conflict. Besides, the objective was to diminish the existing literature gap in this specific area. Even if virtual teams seem to have a promising future in organizations, members however may face new challenges. Communication, building relationships and dealing properly with conflict can be a few of them. This study has some practical implications. The way team members communicate can affect the way members share knowledge, collaborate and build relationships. Hence, organizations should prepare virtual team members, in order to overcome these obstacles.

In particular, this paper provides more insight in the positive effect of including face-to-face interaction in virtual teams, regarding conflict. In order to answer the research question "*How does team identification moderate the relationship between the amount of face-to-face interaction and task/relationship conflict in virtual teams?",* presented in the introduction, two hypotheses with two sub hypotheses each were created. First, the relationship between the independent variable amount of face-to-face interaction and the dependent variables task and relationship conflict, respectively, was analyzed. Second, team identification as a moderator was added. A survey was created and subsequently evaluated in SPSS.

As discussed in the results, relationship and task conflict are highly correlated and are triggered by many different things (such as inappropriate behavior or misinterpretation). Hence, higher face-to-face interaction can lead to less conflict. Task conflict can easily turn into relationship conflict, which can cause higher damage in the end (Simons et al., 2000). From the results of the second hypothesis it can be concluded, that team identification is not a significant moderator for the relationship between face-to-face interaction and relationship conflict. Regarding task conflict, the opposite was proven, that for lower levels of team identifications task conflict is higher, when face-to-face interaction is as well.

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APPENDICES

STUDY QUESTIONNAIRE				
Item	**Dimension**	**Description**	**Scale**	**Source**
Variable: Creativity				
Q1_1		We often communicate and exchange creative ideas with each other	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	Jiang & Zhang, 2014
Q1_2		We can complement and improve each other's creative ideas and problem solving		
Q1_3		We can integrate a creative project at the team level effectively		
Q1_4		Team members are questioned by expressing their personal opinions		
Q1_5		Team members can effectively co-operate and interact with each other		
Q1_6		Team members can exchange creative knowledge without obstacles		
Q1_7		Team leader can arouse members' creative enthusiasm through various means		
Q1_8		The team can realize creative outcome fluently		
Q1_9		The team can realize creative outcome with high quality		
Q1_10		The team can realize creative outcome with great economic and social value		
Variable: Transition Processes				
Q1_11		We identify the key challenges that we expect to face		Mathieu & Marks, 2006
Q1_12		We ensure that everyone on our team clearly understands our goals		
Q1_13		We develop an overall strategy to guide our team activities		
Variable: Adaptation				
Q2_1		Taking creative action to solve problems for which there are no easy or straight forward answers.	1- Never 2- Rarely 3- Occasionally 4- Sometimes 5- Frequently 6- Usually 7- All the time	Marques-Quinteiro, Ramos-Villagrasa, Passos, & Curral (2015)
Q2_2		Finding innovative ways to deal with unexpected events.		
Q2_3		Adjusting and dealing with unpredictable situations, shifting focus, and taking reasonable action.		
Q2_4		Devising alternative plans in very short time as a way to cope with new task demands.		
Q2_5		Periodically updating technical and interpersonal competences, as a way to better perform the tasks in which you are enrolled		
Q2_6		Searching and developing new competences to deal with difficult situations.		
Q2_7		Adjusting personal behaviour to accommodate other team members' characteristics.		
Q2_8		Improving interpersonal relationships by finding each team member's needs and aspirations		
Q2_9		Remaining calm and behaving positively under highly stressful events.		
Q2_10		Maintaining focus when dealing with multiple situations and responsibilities.		
Variable: Team Leadership: transition phase functions				
Variable: function: establish expectations and goals				
Q3_1	Transition Phase	Communicates what is expected of the team.	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	Morgeson, DeRue e Karam (2009)
Q3_2		Ensures that the team has clear performance goals.		
Q3_3		Communicates expectations for high team performance.		
Variable: Function structure and plan				
Q3_4		Defines and structures own work and the work of the team.		Morgeson, DeRue e Karam (2009)
Q3_5		Works with the team to develop the best possible approach to its work.		
Q3_6		Identifies when key aspects of the work needs to be completed.		
Variable: provide feedback				
Q3_7		Reviews relevant performance results with the team.		Morgeson, DeRue

Q3_8		Provides positive feedback when the team performs well.		e Karam (2009)
Q3_9		Provides corrective feedback		
Variable: Team Leadership: support social climate				
Q3_10	Action Phase I	Engages in actions that demonstrate respect and concern for team members.		Morgeson, DeRue e Karam (2009)
Q3_11		Looks out for the personal well being of team members		
Q3_12		Does things to make it pleasant to be a team member.		
Variable: Team Leadership: action phase functions				
				Morgeson, DeRue e Karam (2009)
Q3_13		Requests task-relevant information from team members.		
Q3_14		Notices flaws in task procedures or team outputs		
Q3_15		Monitors team and team member performance.		
Q3_16		Reconsiders key assumptions in order to determine the appropriate course of action.		
Q3_17		Contributes ideas to improve how the team performs its work.		
Q3_18		Challenges the status quo.		
Variable: function: solve problems				
Q3_19		Implements or helps the team implement solutions to problems.		Morgeson, DeRue e Karam (2009)
Q3_20		Participates in problem solving with the team.		
Q3_21		Helps the team develop solutions to task and relationship-related problems.		
Varia2le: function: perform task				
Q3_23	Support social climate	Will "pitch in" and help the team with its work		Morgeson, DeRue e Karam (2009)
Q3_24		Will "roll up his/her sleeves" and help the team do its work		
Q3_25		Intervenes to help team members get the work done		
Variable: function: encourage self-management				
Q3_26		Encourages the team to be responsible for determining the methods, procedures, and schedules with which the work gets done.		Morgeson, DeRue e Karam (2009)
Q3_27		Urges the team to make its own decisions regarding who does what tasks within the team.		
Q3_28		Encourages the team to make most of its own work-related decisions		
Variable: Team identity				
Q4_1		**I** think my group has little **t**o be proud of. **(R)**	1- Never 2- Rarely 3- Occasionally 4- Sometimes 5- Frequently 6- Usually 7- All the time	Ellemers, Kortekaas & Ouwerkerk, 1999
Q4_2		I feel good about my group.		
Q4_3		I have little respect for my group **(R)**		
Q4_4		I would rather not tell that I belong to this group **(R)**		
Q4_5		I identify with other members of my group		
Q4_6		I am like other members of my group		
Q4_7		My group is an important reflection of who I am		
Q4_8		I would like to continue working with my group		
Q4_9		I dislike being a member of my group **(R)**		
Q4_10		I would rather belong to the other group **(R)**		
Variable: Transactive Memory Systems				
Q4_11		I am comfortable accepting procedural suggestions from other team members		Lewis, 2003
Q4_12		I trust that other members' knowledge about the project was credible		
Q4_13		I am confident relying on the information that other team members bring to the discussion		
Q4_14		When other members give information, I want to double-check it for myself **(R)**		
Q4_15		I did not have much faith in other members' "expertise" **(R)**		
Q4_16		Each team member has specialized knowledge of some aspect of our project		
Q4_17		I have knowledge about an aspect of the project that no other team member has		
Q4_18		Different team members are responsible for expertise in different areas		
Q4_19		The specialized knowledge of several different team members is needed to complete the project deliverables.		

Q4_20		Our team works together in a well-coordinated fashion		
Q4_21		Our team had very few misunderstandings about what to do		
Q4_22		Our team needs to backtrack and start over a lot **(R)**		
Q4_23		We accomplished our tasks smoothly and efficiently.		
Q4_24		There is much confusion about how we will accomplish the tasks **(R)**		
Variable: Trust				
Q5_1	Propensity to trust	Most people in this team would not hesitate to help a person in need.	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	Costa & Anderson, 2011
Q5_2		In this team most people speak out for what they believe in.		
Q5_3		People usually tell the truth, even when they know they will be better off by lying.		
Q5_4	Perceived	In this team people can rely on each other.		
Q5_5		We have complete confidence in each other's ability to perform the task.		
Q5_6		In this team people keep their word.		
Q5_7	Monitoring behaviours	In this team people watch each other very closely. **(R)**		
Q5_8		In this team people check whether others keep their promises. **(R)**		
Q5_9		In this team most people tend to keep each other's work under surveillance. **(R)**		
Q5_10	Cooperative behaviors	In this team we work in a climate of cooperation.		
Q5_11		While taking a decision we take each other's opinion into consideration.		
Q5_12		Most people in this team are open to advice and help from others.		
Variable: Relationship Conflict				
Q6_1		Are there personal conflicts between team members?	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	Jehn, 1995
Q6_2		Is there friction between team members?		
Q6_3		Are personal conflicts evident?		
Variable: Task Conflict				
Q6_4		Is there a conflict of ideas exist between team members?		Jehn, 1995
Q6_5		Is there a confrontation of opinions about the decisions to be made?		
Q6_6		Do team members disagree about the content of decisions?		
Variable: Team Work Engagement				
Q6_7		While we are working we feel bursting with energy		Costa, Passos & Bakker, 2014
Q6_8		While we are working we feel strong and vigorous		
Q6_9		We are enthusiastic about our work		
Q6_10		Our work inspires us.		
Q6_11		When we get up in the morning, we feel like going to work.		
Q6_12		We feel happy while we are working.		
Q6_13		We are proud of our work		
Q6_14		We get immersed in the work.		
Q6_15		We get carried away when we are working		
Variable: Effectiveness Perception				
Q7_1		My team is effective.	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	
Q7_2		My team has a good performance.		
Q7_3		My team has high quality performance.		
Q7_4		My team is successful in the tasks.		
Variable: Team viability				
Q7_5		I would not hesitate to participate in another task/project with the same team.		Standifer, Halbesleben and Kramer's (2009, unpublished data)
Q7_6		If possible, I would switch to another team. **(R)**		
Q7_7		If I had the opportunity, I would rather work with a different team, instead of working with this one.**(R)**		

Q7_8		This team would work well in future projects.		
Variable: Satisfaction				
Q8_1		Team you are in	1- Strongly dissatisfied 2- Dissatisfied 3- Somewhat dissatisfied 4- Neither satisfied nor dissatisfied 5- Somewhat satisfied 6- Satisfied 7- Strongly satisfied	
Q8_2		Team functioning		
Q8_3		Relationship climate among members of your team		
Q8_4		All in all, and considering every aspect of your participation in the team you would say you are		
Variable: Multicultural Experiences				
Q9_1		I travel outside of my country	1- Never 2- One to two times in my life 3- Three or more times 4- Regularly	Narvaez & Hill, 2010
Q9_2		I speak fluently	1- One language 2- Two languages 3- Three languages 4- more than three languages	
Q9_3		I have lived in a different community (with a very different culture from my own).	1- Never 2- One to two months 3- Three to six months 4- Six months 5- Six to nine months 6- Nine to twelve months 7- More than one year	
Q9_4		I correspond currently with people from other countries.	1- Never 2- One country 3- Two to three countires 4- More than three countries	
Q9_5		I have friends from cultural-racial-ethnic backgrounds different from my own.	1- Zero 2- One 3- Two 4- Three 5- Five or more people	
Q9_6		I have had courses in intercultural communication.	1- None 2- One course 3- Two courses 4- Three or more courses	
Q9_7		I work with people with cultural-racial ethnic backgrounds different from my own	1- Strongly disagree 2- Disagree 3- Somewhat disagree 4- Neither agree nor disagree 5- Somewhat agree 6- Agree 7- Strongly agree	
Q9_8		I enjoy media and art from different cultures		
Q9_9		I pay attention to news about the world beyond my country		
Variable: Synchronicity Team				
Q10_1		Regarding the communication between **team members**, please state the proportions of communication channels used in your working environment. Split up a 100% on the mentioned channels. *Please note that the sum must be 100%.* 1- Face-to-Face 2- Video Conference 3- Telephone Conference 4- What's App 5- Voice Mail 6- Fax 7- E-mail 8 - Other (please mention which)	100% has to be split up on the mentioned channels	Dennis, Fuller & Valacich, 2008

Q10_2		Regarding the communication **between the team and the team leader**, please state the proportions of communication channels used in your working environment. Split up a 100% on the mentioned channels. *Please note that the sum must be 100%.* 1- Face-to-Face 2- Video Conference 3- Telephone Conference 4- What's App 5- Voice Mail 6- Fax 7- E-mail 8 - Other (please mention which)	100% has to be split up on the mentioned channels	Dennis, Fuller & Valacich, 2008
Variable: Demographics				
Q11_1		Age		
Q11_2		Nationality		
Q11_3		Sex	1 – Male 2 – Female	
Q11_4		How long have you worked with this team		
Q11_5		I am the leader of this team	1 – Yes 2 – No	
Q11_6		Sector of Activity		
Variable: Creative industry				
Q11_7		Creative industry	1 – Yes 2 – No	