Team development in virtual, multicultural teams

FOCUSING ON TEAM COHESION

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1. Abstract

This thesis deals with the topic of team development in virtual, multicultural teams, focusing on cohesive team development. It is trying to answer the following core research questions:

1. What makes collaboration in virtual, intercultural teams successful?

2. How, where and when does it makes sense to leverage technical collaboration tools for team development? Which limitations do they have?

3. Which effect does cohesive team development intend on virtual, multicultural teams?

4. Are there replicable interventions to support team cohesion?

The investigation is based on the evaluation of selected academic publications about virtual, multicultural teams and on two case studies of selected virtual, multicultural teams in the IT services industry. Finally the thesis provides evidence that dedicated cohesive team development is feasible with technical collaboration tools if applied consciously. It proposes virtual cohesive team development as a way to help unfold the full potential of virtual, multicultural teams. A draft for a framework to set up virtual cohesive team development is provided at the end.

2. Zusammenfassung

Diese Thesis beschäftigt sich mit dem Thema der Teamentwicklung in virtuellen, multikulturellen Teams. Sie legt einen besonderen Fokus auf den Aspekt der Teamkohäsion und beantwortet unter anderem die folgenden Forschungsfragen: Wie kann in virtuellen, multikulturellen Teams eine erfolgreiche Zusammenarbeit sichergestellt werden? Wie und in welchem Maße macht der Einsatz von "Kollaborations-Tools" Sinn, welche Grenzen haben sie? Was kann man mit gezielten kohäsiven Teamentwicklungs-maßnahmen erreichen? Gibt es gezielte Interventionen zur Ausbildung von Teamkohäsion, die generell zu diesem Zweck eingesetzt werden können? Die Untersuchung basiert auf der Auswertung ausgewählter akademischer Literatur über virtuelle, multikulturelle Teams und auf zwei Fallstudien von virtuellen, multikulturellen Teams aus der IT-Services Industrie. Sie gibt Hinweise, dass eine zielgerichtete, kohäsive Teamentwicklung mittels gängiger digitaler Medien machbar ist, sofern diese bewusst eingesetzt werden.

Sie schlägt virtuelle, kohäsive Teamentwicklungmaßnahmen als Möglichkeit vor, um das volle Potential virtueller, multikultureller Teams zu entfalten. Am Ende der Untersuchung wird ein Entwurf zur Durchführung virtueller kohäsiver Teamentwicklung angeboten.

3. Introduction

Basically this thesis focuses on organizational development of virtual, multicultural teams. Moreover the findings and models outlined should be useful for team leads or coaches who support team leads of virtual, multicultural teams or team members. They might get a better understanding about the very complex environments they deal with and get tools at hand to handle the challenges of virtual, multicultural teams.

This research project has been started with a couple of research questions around virtual, multicultural teams. Having initially discussed those questions with different parties like colleagues, a Chief HR-Officer, co-students and having done some initial literature research, those questions have been reduced to four core questions which appeared most interesting and least explored.

1. What makes collaboration in virtual, intercultural teams successful?
2. How, where and when does it makes sense to leverage technical collaboration tools for team development? Which limitations do they have?
3. Which effect does cohesive team development intend on virtual, multicultural teams?
4. Are there replicable interventions to support team cohesion?

From those four questions I recognized team cohesion being the most attracting topic and secondly the applicability of collaboration tools for team development in a virtual environment.

So this thesis focuses on capturing and describing the current situation of team development in virtual, multicultural teams and the meaning of cohesion in special. It might help increase awareness amongst team leads of virtual, multicultural teams of certain issues and challenges and provide some ideas how to deal with them.

Overall, the literature and cases that have been evaluated for this thesis lead to two new basic research assumptions which cannot be dealt with in this thesis but might be investigated by follow up research:

1. Dedicated and frequent cohesive team development intentionally taking up the special challenges of virtual multicultural teams will help to unfold the full potential of virtual teams.

2. The evolving digital media if leveraged appropriate to the goal of an intervention are useful media to perform team development in virtual, multicultural teams having some potential to partially replace face-to-face meetings.

Beyond these two core research topics some smaller relating research topics arose (chapter 7) which might stimulate future research.

4. Methodology

Occasionally, this thesis uses the first person - "I" – alternatively to the third person or just passive wording, which indicates my personal involvement. Furthermore, I want to emphasize personal research industry knowledge, contributing to the questionnaires. Also as well as the hermeneutical loop reflecting about the development of the research topic from my initial understanding which is represented by the four research questions outlined in the abstract section. According to Strauss and Hildenbrand (1994) in qualitative research a researcher contributes his own personal and professional experiences and knowledge from any literature he might have read, his knowledge of doing research, etc. The implicit knowledge I contribute mainly comes from two areas:

1. My professional background:
   - As a research manager being common with research and analysis techniques of both primary and secondary research as well as with quantitative and qualitative research methods (i.e. conducting interviews; creating questionnaires, etc.)
   - Working more than 12 years in an international company in a mainly virtual, multicultural collaborative environment (emerging and saturated market)
   - Experienced in people development in different roles: line manager, project manager, career counselor, mentor; organizer and moderator of virtual team development

2. The postgraduate studies on coaching I started in 2009, which included lectures about organizational development, quantitative and qualitative research, etc.

Having done some initial literature desk research I had the impression that much has been written about aspects like virtuality, multiculturalism, leadership in virtual teams etc. But I could not find anything comprehensive focused on cohesive team development of virtual, multicultural teams in such combination. Overall, the research topic appeared not sufficiently covered and still vague wherefore I decided on a qualitative approach which claims to evidence the current understanding of a topic and may help to shape research questions before potentially follow-up with more focused research outside the scope of this thesis. In his book "Qualitative Inhaltsanalyse" Mayring (2010) suggests some technologies for qualitative analysis which have been selectively taken up for the theoretical part of this thesis:

• By starting a qualitative analysis based on linguistic material it is important to determine its direction: This thesis focuses on the research topic and the research questions. It does neither account for the emotional situation of the authors of the linguistic material, nor does it analyze any socio cultural context, the intention of an author or the target group.

• As a structured approach to analyze written or linguistic material, Mayring (2010) suggests to develop a system of categories. The system of categories is the central tool of the analysis and one basis of inter subjective accountability to be ensured by a qualitative analysis. That basic idea has been applied to the theoretical part of this thesis which evaluates selected literature. However Mayring´s ideas and technologies to build up a comprehensive category system have not been fully applied rather in a limited and simplified way as appropriate for this thesis.

• The top categories being chosen are the central research terms of this thesis: virtuality, multiculturalism, collaboration tools, cohesion, team development & interventions. Each category initially has been aligned with five to eight sub-categories based on my implicit knowledge on the research topic. I kept room to potentially enhance the categories and even add further sub-layers to allow correction and enhancement of my implicit pre-knowledge or so to speak to allow the hermeneutical loop.

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- Further Mayring (2010) postulates to define the parent material for the qualitative analysis which is just the academic publications being researched: Research for relevant academic publications has been started taking meaningful keywords from the four research questions: virtuality, multiculturalism, collaboration tools and cohesion which are mentioned above as four of the central research terms. Research for academic publications has been limited to the past ten years given the limited scope – both time and content wise - of this thesis and as the topic of virtual teams has become much more present and important in that timeframe. It can be assumed that recent scientific publications have been written based on prior publications enhancing the scientific heritage with new aspects and horizons of the past ten years. Research for academic publications aimed to find few pieces of comprehensive basic works in which lots of theoretical background should be processed and put into a context of organizational development. Hoping to answer some of the research questions already. Scientific article publications from the same time scope should also put context to the research questions and potentially enhance the initial understanding. The main sources having been leveraged to find relevant academic publications are just "the Internet" via Google Advanced Search, Ebsconet (focusing on the online versions of academic journals) and my personal network and professional environment.

As a different kind of source I had planned to leverage recent discussions of expert groups in social networks like Xing and LinkedIn. In Xing I found a few groups dealing with virtual teams however they appeared "dead", there was no lively discussion and only few team members. I signed up for only one group having 33 members which seemed to be more active: "Virtual Teams and their Management". With the introduction of my topic I did not get any response and following that group about three months it appeared "dead" as well as there was only very few activity. I signed up for another experts group in LinkedIn which is called "Virtual Team Builders". This group has 185 members and the moderator has recently opened the group which means all future discussions and posting will be fully visible, searchable, and shareable on the Web. The moderator is very active in placing topics to stimulate discussions. However she gets only few responses. I tried to actively stimulate a discussion with some of my research findings in January and will stay a member in that group to

watch for reactions. While concluding this thesis there has been not much response. Neither is there much of an exchange in the media (as stated above) about my topic nor did I get any qualitative response on my contributions. So I finally decided to eliminate the qualitative source and to focus on evaluating the academic publications as described above. .

Some comments on the methodology of the empirical part:

Finally four of the six initial central research terms - multiculturalism, collaboration tools, cohesion, and interventions - have been taken up as research dimensions of the empirical part. The knowledge from the literature which had been read so far helped to narrow those down and to skip the other two terms of the six: team development and virtuality. Both aspects are separately covered very well in past and current scientific literature so that there was no obvious need to consider them for the empirical part. However, another research aspect appeared up from literature which had not been thought about at the beginning: Trust came up as a keyword from recent scientific articles and it appeared so dominant and important that it was added as a research aspect to the research dimension of multiculturalism.

As basic survey method the so-called problem-centric interview has been chosen. Mayring (2002) refers to Witzel who has coined that term and describes the approach: the interviewer creates an interview guideline which takes up selected important aspects of the main research topic. All aspects should be taken up during the interview. The problem-centric interview aims to allow the interviewee room to narrate. It should come close to a conversation however it should always get the focus back on the main research topic. The problem-centric interview has three main characteristics:

1. Being problem-centric in the sense the researcher has investigated about the objective aspects of a social problem or research topic

2. Being an object-oriented method in the sense it has to be specifically shaped on the certain research topic instead of just taking over standard tools

3. Being process-oriented in the sense to flexibly moderate the analysis of the research topic and step-by-step match and reflect the connection of single elements

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The methodology for this thesis has prolonged in the following way:
For each research dimension two or three research assumptions have been phrased (see 6.1.) representing my intermediate enhanced understanding while analyzing some of the academic literature. Based on those assumptions a first questionnaire for the first interviewee has been drafted. As qualitative research suggests, following the idea of the "hermeneutical loop" (Mayring 2002), not all interview partners have been asked the same questions. Only the research dimensions remained the same but the questions evolved from interview to interview changing the emphasis on a certain research dimension. Or the questions have been changed taking a finding from one interview to another trying to test if it is valid from the perspective of another interview partner. The interview flow with each partner aimed not to disclose the underlying assumptions of a research dimension. The interviewees have been asked open questions relating to those assumptions. If an interview partner did not understand or felt uncomfortable with a question an alternative questions has been asked trying to paraphrase the same content in a more understandable way. In selected interviews few underlying assumptions have been made transparent to the interviewee. In all cases the drafted guideline for each interview built a solid framework however it was handled with flexibility in the sense of having probed or even added few questions to spontaneously gain deeper insights on something or to follow a new track.

For the selection of cases as well as of the interviewees the principle of "Theoretical Sampling" has been applied which can be defined as "Data gathering driven by concepts derived from the evolving theory and based on the concept of "making comparisons," whose purpose is to go to places, people, or events that will maximize opportunities to discover variations among concepts and to densify categories in terms of their properties and dimensions" (Strauss and Corbin 1998, 201). The first case was easily found in my working environment. Interview partners have been consciously selected to get different perspectives on the research dimensions, finally to add their contributions up to a more complete picture or so to speak the theoretical framework behind that thesis: interview partners have been chosen representing three different nationalities and cultures of that team: one from

India, one from South Africa and one from Western Europe. Two are team members with a different professional experience however each of them represents a strong sub-team. One is a team lead with a more distant and strategic view on the overall team.

The second case was chosen because some basic criteria were similar to those of the first case, like the industry – both teams belong to companies of the IT services industry -, the age ore maturity of the team – both in their core exist more than 10 years which is why a certain team history can be assumed for both; both teams have strong sub-teams. Other criteria are contrasting like the team size, geographical distribution, and team history. One interview partner again provided the outside-in perspective and the second interview partner represents a strong sub-team. More details on the selection of cases and interviewees are provided with each case.

A basic principle of the empirical part is to ensure anonymity: it has been applied on the description of the cases and the interview partners. This thesis aims to generalize findings independently of the single individual cases. For that the 100% tracebility of the cases or interviewees does not play a role. However until having further empirical evidence about those findings they appear most valid for virtual teams in a comparable set-up like that of the two cases. For that reasons some facts and background about each case and each interview partner has been disclosed however not enough to identify companies, teams or the single team members. Cases and interview partners only appear with coded acronyms as described more detailed in the empirical part. Interview partners even appear as "neuter", gender specific attributes have been consciously eliminated to a minimum. Only in the analysis of the cases selective hints on gender specific context is provided. A note about diversity: this thesis deals with multiculturalism which is an aspect of diversity. My understanding is that in current scientific research gender is being considered a very important aspect of diversity. Unfortunately this important dimension to interpret the empirical material cannot be taken up due to the limited and highly focused scope of this thesis. If that research topic ever might be taken up again the gender aspect would be a very important aspect to consider. Even this thesis does not take gender intentionally up there are indications gender

plays a remarkable role. Selectively gender relating context has been highlighted in the analysis of the interviews.

Each interview started with informing the interviewee about that principle. Other principles they have been informed about:

o Usage of selective quotes, quotes being transcribed in a simplified way

o Interpretations of context provided should be worded and introduced as interpretations to distance messages and findings from an interviewee ´s own thinking which might not be in line with the interpretation

o Record of the original interview serve only as back-up of that scientific work; they are kept confidential and will not be disclosed to anybody without the knowledge and permission of the interview partners

While completing the interviews two kind of linguistic material was available for each interview: the interview itself as a voice record and written memos during or directly after an interview. The memos aimed to remind on certain aspects or special findings from the interview to be taken up for the analysis. Going ahead selectively quotes of the interviewees have been transcribed providing evidence on the research dimensions and especially those who might enhance the initial understanding at the beginning of the study. Mayring (2002) recommends for better and easier usage of transcriptions their transfer to normal language. This means in detail: clearing up of idioms and syntax, flattening of the individual style. This is recommended to be applied when focusing on the content or topic of investigation as practiced in expert interviews. The transcribed text passages mean a simplification to the original quote keeping the main message and as far as useful the most original wording. This should be applicable if the interviewee ´s role is just that of an expert for a certain topic.

Finally, the observations and findings from the interviews have been aligned and discussed to the original four research dimensions and their basic assumptions because here the hermeneutical loop of this piece of research starts. The basic assumptions represent the initial understanding at the beginning of this thesis. The discussion should show based on the interviews how the initial understanding is being confirmed and/or to which extend it needs to be adjusted, enhanced or even replaced.

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Overall this methodology aims to ensure the general quality criteria of qualitative research which are according to Mayring (2002) procedural documentation, argumentative evidence of interpretations, rule-governance, staying close to the research topic, communicative validation, triangulation or in short: objectivity, reliability and validity (Mayring 2010)

Notes:

- This thesis partly refers methodologically to Anselm L Strauss and leverages research techniques and procedures which are attributable to "Grounded Theory". However this piece of research overall has intentionally not been set up as qualitative research following "Grounded Theory". It is methodologically much more influenced by Mayring ´s ideas of qualitative content analysis and overall just practically combines different research techniques which appeared most meaningful to approach the research topic.

- The whole thesis has been written in English language to enable a broader communicative validation and discussion of its findings. The basic literature being leveraged is partly in German, partly in English language. All interviews of the empirical part have been performed in English language, only one response has been provided in German language but it has been translated to English. None of the interviewees is an English native speaker. For the translation to English the online dictionary **www.leo.org** and GoogleTranslator have been leveraged.

- Acknowledgments:
    - Annette Schaeffer for having reviewed this thesis on context, pitfalls in English language and logical breaks
    - Andrea Voigt having read with her knowledge about organizational development and especially about working in virtual, multicultural environment
    - Wiltrud Wetzenstein for having reviewed and corrected English grammar and orthography

- Citation of sources follow the rules of the Harvard System as outlined at http://217.196.146.101:8081/bibliothek/Allgemein/Zitierregeln_02%20Harvard%20System.pdf?u=

5. Theoretical Part

5.1. Definitions

Cohesion:

Köppel (2008) defines cohesion as belonging together and as an important phenomenon which can have both positive and negative effects on a group ´s effectiveness. She refers to other scientists and provides an enhanced meaning of cohesion, grouping two types: person related components and task relating components:

- Person relating components:
  - the average attractiveness of a group for its members
  - interpersonal attractiveness which is based on mutual appreciation and liking or friendship
  - the measurement of the mutual positive emotions of the group members
  - identification with a group, personal involvement, interest in a membership and feeling of belonging
  - the strength of the wish to stay as a member in a certain group
- Task relating components:
  - Commitment towards a common goal

Finally Köppel (2008) talks about two potential perspectives to reflect about cohesions: a group ´s perspective and the perspective of its members. By all means cohesion is a desire of individuals. She highlights three purposes of cohesion:

1. Stability of a group across time
2. Attraction on new and old team members
3. Ability to resist pressure and stress

Cohesive team development:

Thereafter cohesive team development could be defined as a dedicated team development aiming to get the level of cohesion balanced right in a team. It would intentionally leverage dedicated interventions towards two basic effects: firstly to increase the level of cohesion to unfold the positive effects of cohesion; secondly to reduce the level of cohesion to diminish potential

negative effect of a high level of cohesion. (more detailed in chapter 5.2.7). Of course a dedicated cohesive team development would require some special diagnoses of the current cohesiveness of a team, a clear definition what the goal of such a team development should be and a thoroughly selection of interventions as levers towards that goal.

Collaboration tools

Collaboration tools should be understood the same way as Duarte and Snyder (2006) define and "(…) use the term groupware to describe the entire category of electronic options available to a virtual team. It is a broad term that refers to electronic systems that integrate software and hardware to enable communication and collaborative work" (Duarte & Snyder 2006, 30). The authors note they have done an intensive research to "(…) identify and focus on those technological families that have the potential to improve the performance of virtual teams" (Duarte & Snyder 2006, 30). They cluster synchronous and asynchronous types of groupware and describe each type in detail.

"Synchronous groupware includes the following:

- Desktop and real-time data conferencing
- Electronic meeting systems (EMS)
- Electronic display
- Video conferencing
- Audio conferencing
- Instant messaging" (Duarte & Snyder 2006, 31)

"Asynchronous groupware includes the following:

- E-mail
- Personal computing devices
- Group calendars and schedules
- Bulletin boards
- Team Web sites
- Non-real-time database sharing and conferencing
- Workflow applications" (Duarte & Snyder 2006, 40)

For a detailed description of each groupware I would like to recommend reading the referenced pages.

Synchronous tools allow real time interaction and an instant exchange and /or communication flow between one or more individuals. Action/question and reaction/response occur in an immediate succession and can be seen as a classical communication between sender and receiver. Asynchronous collaboration tools enable the same content like synchronous – Audio, Video, Text, etc. however a receiver usually gets the message with a time delay. Messages are designed accordingly not expecting an immediate response. Waddell, Rahschulte and Martinelli (2011) provide a nice graph showing the potential of different collaboration tools to replace face-to-face meetings or in other words their level of social presence. The tools are organized from text only to voice & video. Video conferencing, a synchronous type of groupware, is shown as most capable tool with respect to the level of social presence it enables.
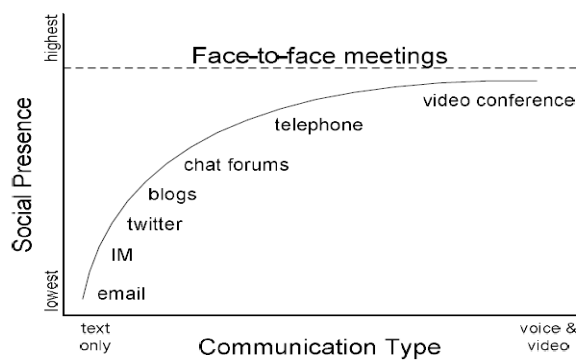
Modern social media tools like Blogs, Twitter and Social Networks like Facebook might be seen as hybrid collaboration tools: their technological base allows both synchronous and asynchronous communication, mainly text based. Quite often they are used as synchronous communication tools partly replacing traditional voice telephony, however paradoxically leveraging telephony devices like mobile phones to transmit the relative reduced text messages. Other synonymous expressions for the term "collaboration tools" being used in this thesis are electronic or digital media.

Group vs. Team:

Common literature often does not distinguish between the terms group and team. To reduce complexity, this thesis will apply both terms synonymously. However, literature from organizational psychology makes a difference and this thesis is written being aware about that difference:

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In her definition of **groups** (or rather working groups), Köppel (2008) discusses the quantitative aspect of how many group members form a group. The range she discusses ranks between two members as a minimum and 20 to 25 as a maximum. Köppel emphasizes that it is rather the ability of personal interaction between the members than the pure number which makes a group a group. And the number of members mainly depends on the task a group has to perform. Further Köppel points out about the common goals, values, norms and practice as elements of a group ´s identity which dominate the way of interaction and task performance. Those common things result in a "we-feeling", another word for cohesion. According to Köppel the term **team** is rather being used in popular scientific literature emphasizing on the close interaction and mutual support of the team members to perform their complex and challenging tasks.

Holly Duckworth in her article about team development at TRW Automotive provides the following concise definition: "The term team refers to people working interdependently toward a common goal whose successful achievement relies upon the successful contribution of each member of the team. This is distinguished from a group that shares an activity, for instance, without a high degree of interdependence—teams require a much higher level of interpersonal performance." (Duckworth 2008, 6)

Intervention:

Wikipedia refers to Johnson (1976) and to French & Bell (1973) defining the term Intervention in the context of Organizational Development:

"Interventions" are principal learning processes in the "action" stage of organization development. Interventions are structured activities used individually or in combination by the members of a client system to improve their social or task performance. They may be introduced by a change agent as part of an improvement program, or they may be used by the client following a program to check on the state of the organization's health, or to effect necessary changes in its own behavior. "Structured activities" mean such diverse procedures as experiential exercises, questionnaires, attitude surveys, interviews, relevant group discussions, and even lunchtime meetings between the change agent and a member of the client organization. Every action that

influences an organization's improvement program in a change agent-client system relationship can be said to be an intervention.''

In the context of this thesis a further differentiation of interventions might be useful. Given the fact that team development in virtual teams depends on collaboration tools the interventions chosen for team development might be diversified in same two categories which are applied for collaboration tools: synchronous and asynchronous. Few paragraphs before both terms are defined. The following two definitions are tailored to the context of this thesis but mainly based on Oxford Brooks University ´s Learning and Teaching Glossary[1] which provides definitions for synchronous and a-synchronous learning. The definitions have been adjusted and enhanced according to the context of this master thesis.

- Synchronous interventions refer to team development that takes place in an environment where the change manager or coach and the team members are simultaneously present in a face-to-face or virtual room setting. Synchronous interventions stimulate real time interaction and an instant exchange of information or communication between two or more individuals of a team including or excluding active participation of the change manager or coach.

- A-synchronous interventions refer to team development which takes place in an environment where the change manager or coach and the team member/s is/are not simultaneously present. The interaction between change manager/coach and team members occur intermittently with a time delay. A-synchronous interventions might be placed with all or single team members before a face-to-face or virtual class room meeting of all participants to prepare a synchronous intervention.

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[1] https://mw.brookes.ac.uk/display/hscmain/Learning+and+Teaching+Glossary

<u>Multiculturalism:</u>

This thesis deals with multicultural teams. Multicultural should be defined as two or more different cultures being present in a team through the national origin of team members and/or the country a team member is working from. Other types of cultures – organizational or functional cultures (Duarte 2006) – are not considered in the context of this thesis. Overall a very basic understanding of the term culture in the sense of national culture is sufficient. However this thesis is written being conscious about the critical discussion around equalizing the terms culture and nation since Hofstede published his studies about cultural dimensions carrying that rather limited understanding. Kirsten Nazarkiewicz (2010) in her recent dissertation about Intercultural Learning discusses this fact pointing out that national cultures are not static but changing. Given the rapid technological development, globalization of economies etc. nobody will deny the constant value shift all nations are exposed to.

For this thesis Multiculturalism of teams is an important prerequisite as it adds a dimension on team development overall. Nazarkiewicz ´ dissertation might be taken as a recent evidence that intercultural learning is a hot topic for global companies and the development of their teams. And the terms multicultural or intercultural have been key words to select both: the theoretical literature for this thesis and cases being discussed. As the focus is clearly on team cohesion the aspect of multiculturalism should not be discussed further. However, this thesis aims to proof that the multicultural aspect indeed makes a difference in cohesive team development.

Furthermore this paragraph wants to highlight about a slight difference between the often synonymously applied terms multicultural and intercultural. According to Köppel (2008) multicultural refers just to the existence of members of different cultures in a certain environment. The term intercultural refers to the processes between the team members of different cultures like communication, cooperation or any kind of interaction. For this thesis the term multicultural has been intentionally preferred. The term intercultural might occur when talking about interactions or interventions of the team members towards team cohesion.

Finally it should be noted that culture is one kind of diversity. Köppel (2008) points out that when looking on cultural diversity - which is indeed done in this thesis to a certain degree – other dimensions of diversity like gender, age, religion etc. should not be left aside, because they might have an even stronger influence on a person then culture or are just as strong geared with the cultural aspect that analytically they can ´t be separated. This is for sure a valid aspect however would add a level of complexity which cannot be dealt with in that thesis as already mentioned in the methodological part.

Trust:

The topic of trust popped up in the literature search for this master thesis and it has been limitedly taken up as described in the methodological part.
"Trust will be defined as an individual's belief or a common belief among a group of individuals that another individual or group (a) makes good-faith efforts to behave in accordance with any commitments both explicit or implicit, (b) is honest in whatever negotiations preceded such commitments, and (c) does not take excessive advantage of another even when the opportunity is available." (Houghton 2004, 120)
It's just important to note and to proof that trust is an important factor for cohesive team development. Köppel (2008) outlines the meaning of trust in virtual teams in a whole chapter. This thesis postulates trust-building as one of the goals to reach with cohesive team development. Furthermore the current level of trust in a team should be considered when setting up a cohesive team development because it influences the level of participation of team members and such the result of the team development. Trust is by default something which is influenced by ones´ cultural background and such its worth to consider when setting up cohesive team development especially in intercultural teams.

Virtuality:

Holly Duckworth provides the following definition of virtual:
"The term virtual means interacting across space, time, and organizational boundaries through the use of technology." (Holly Duckworth 2008, 6)
Köppel in her definitions of virtual teams outlines the same aspects with slightly different words: "Virtual teams are working groups in which

individuals collaborate without being present at the same place. Collaboration spans spatial, timely and organizational borders leveraging a broad spectrum of collaborative technologies."(Köppel 2008, 26)

Virtual, multicultural teams:

Köppel (2008) defines virtual, multicultural teams as collection of geographically distributed, functionally and/or culturally diverse entities that are linked by electronic forms of communication and rely on lateral, dynamic relationships for coordination. Duarte and Snyder (2006) distinguish seven types of virtual teams but this level of granularity cannot be considered in the scope of this thesis.

5.2 Summary of the current scientific & public discussion

The literature being evaluated for this thesis is originated in different scientific or academic research areas: Psychology and especially organizational psychology; behavioral science; management and especially project management; leadership; information technology; product development; economic sciences; human resources to name a few. That shows the importance of the research topics in many different areas. Overall there is a wealth of information available being compiled on different research methodologies and research assumptions. This thesis selectively picks information from all areas and brings them into a rough context being aware of that very heterogeneous basis and the rather relative than absolute validity of research results and conclusion on the main research topic.

5.2.1 Introduction of the main publications being leveraged for this thesis

Petra Köppel, Konflikte und Synergien in multikulturellen Teams

New media allow virtual collaboration of multicultural working groups however intercultural misunderstandings quite often inhibit collaboration. Köppel investigates about the question whether multicultural teams reach the same level of effectiveness like mono-cultural teams especially having team members only communicating via media. Köppel identifies different kind of conflict and synergies of multicultural groups and compares those in virtual and face-to-face environments. Based on that she develops a Multicultural-Input-Process-Output-Model (MIPO-Model) which provides starting points for the design and the conduction of multicultural working groups. Especially Köppel emphasizes on a differentiating and synergy-focused decoding of the cultural factor to succeed other more simplifying and deficit-oriented approaches.

The publication targets lecturers and students of business economics focusing on Human Resources, Organization and intercultural management. Leaders working with multicultural virtual teams as well as personnel officer, diversity officer and consultants gain valuable hints. (Note: the text above is just a translation of the summary on the backside of the 2008 paperback edition of Köppel ´s dissertation).

Note: In my view this publication provides the most comprehensive and the most important background for this thesis. It is unbelievably rich in the way it

discusses and summarizes current knowledge about team development in general, diversity, conflicts and synergies in multicultural teams and many other topics. Köppel is able to mediate her very broad and holistic theoretical background from areas like organizational development, organizational psychology and business economics in understandable words and enrich the theoretical background with her own research. She is also the most quoted author in this thesis as she covers more or less all research dimensions of this thesis.

Deborah L. Duarte, Nancy Tennant Snyder, Mastering Virtual Teams

"The best-selling first two editions of Mastering Virtual Teams offered a succinct guide for managers who must help people from different parts of the company, different countries, and different cultures work together efficiently and effectively. In this newly revised and expanded third edition, the authors - both respected global management experts - have updated the contents to reflect the most current analysis and reflect today's changing business environment. In this comprehensive book, the authors tackle the challenges of today's virtual team hard-on." (note: this is the summary Worldcat provides – see http://www.worldcat.org/oclc/62878673)

Note: Overall this publication turned to be the second most supportive publication. It provides a comprehensive context for the core research topics of this thesis like team development, interventions, virtuality and multicultural-lism, testifying a deep empirical knowledge about processes in virtual teams. Most notably it provides a dedicated model of team development for virtual teams. A little criticism may be allowed: as they talk about the multicultural aspects of virtual teams they use Hofstedte´s cultural dimensions in their old "static" meaning as being outlined in the definition of Multiculturalism few paragraphs above in the definitions section of this thesis.

Kirsten Nazarkiewicz, Interkulturelles Lernen als Gesprächsarbeit

Development of intercultural competence has become a major element of societies with a high level of immigration and just of the globalized economy. The factors of continuing education which support such key qualifications so far have almost been unexplored. This dissertation is based on records of workshops and shows how moderators and trainers might speak, moderate and

intervene to stimulate intercultural learning among the participants of a workshop. The dissertation describes communicative strategies towards generic, culture-reflective interpretation as well as constructive mastering of inhibiting factors of learning like stereotypes or racism. (Note: the text above is just a translation of the summary on the backside of the 2010 paperback edition of Nazarkiewicz ´ dissertation).

Note: Especially the first chapter of Nazarkiewicz ´ dissertation provides helpful context for this thesis. Nazarkiewicz critically discusses the term culture and Hofstede ´s cultural dimensions. Overall, it helped me a lot to better understand the meaning of culture and multiculturalism and to make me more sensitive for the interviews which I conducted with people of different cultures.

5.2.2 Why are virtual teams so important today?

This should be answered with selected quotes and excerpts:

"In the fast-paced, technology-driven 21st century, virtual project teams represent a growing response to the need for high-quality, low-cost, rapid solutions to complex organizational problems. Virtual project teams enable organizations to pool the talents and expertise of employees (and non-employees) by eliminating time and space barriers." (Furst et al. 2004, 6)

"Virtual teams afford many advantages to organizations, including increased knowledge sharing and employee job satisfaction and commitment, as well as improved organizational performance."(Furst et al. 2004, 7)

Köppel (2008) also provides a good summary talking about global competition forcing flexible collaboration accomplished by a complex working environment. Furthermore she talks about the growing complexity of tasks which demands a appropriate problem solving and decision making as well as bringing together experts from different subject areas. She highlights that the isolated specialist is obsolete and companies rather require cross department and partly even cross corporate teams to bundle all available competencies towards a certain topic.

5.2.3 What kind of special challenges do virtual, multicultural teams face?

Some selected quotes or excerpts from recent literature should help to gain a better understanding about that question:

Summarizing quotes or excerpts:

→ Holly Duckworth provides a great summary introducing her article: "Global virtual teams have the deck stacked against them: long distances, cultural differences, lack of social cues to help gauge each other's trustworthiness—and leaders unprepared to deal with these challenges. What such teams need for success are special leadership, consistent work practices, and keen attention to communication and building trust through a focus on member commitment and competency" (Duckworth 2008, 6).

→ "However, virtual teams can also face a number of unique challenges that often prevent them from obtaining successful outcomes. Broadly, these challenges include (1) logistical problems, such as communicating and coordinating work across time and space, (2) interpersonal concerns, such as establishing effective working relationships with team members in the absence of frequent face-to-face communication, and (3) technology issues, such as identifying, learning, and using technologies most appropriate for certain tasks" (Furst et al. 2004, 8).

→ "Vulnerability to competing pressures from local assignments, frustrations over free riding or non-committed teammates, and communication discontinuities due to asynchronous communication" (Furst et al. 2004, 8).

→ "(…) members of a global virtual team are vulnerable to a number of feelings and beliefs that can inhibit individual and team performance unless the team leader takes overt, well-timed action:

- Given the separation from the rest of the team, members have a tendency to feel isolated.
- They hold a view of their teammates, whom they do not know well, as strangers, as "foreign" people who do not merit the benefit of the doubt— that is, untrustworthy (unless explicitly proven otherwise).
- They readily distrust everyone's adherence to team norms.

- The contributions of other team members to the team's goals are largely unknown because they cannot be "seen," leading to the assumption that they therefore are not providing any value.

- The sense of isolation and "difference" can be amplified for members working in a second language and/or on a team with a dominant culture and country of origin dissimilar to their own" (Duckworth 2008, 9)

→ Köppel (2008) describes three purposes of cohesion on both the whole group and/or the individuals of a group implicating the dedicated challenge: stability over time, attraction on new and old group members and the ability to balance pressure and stress. Summarizing the findings of different studies, she explains the interdependence of cohesion with group size, homogeneity of a group and face-to-face contacts between group members. Given that inter-dependence the level of cohesion in virtual and multicultural teams is much lower than in non-virtual teams as multiculturalism comes along with heterogeneity and as less or no face-to-face contacts negatively influences the development of trust amongst group members.

Quotes and excerpts relating to trust and the quality of interpersonal relationship:

→ "Fewer opportunities for informal work- and non-work-related conversations; risk of making erroneous stereotypes in the absence of complete information; trust slower and more difficult to develop" (Furst et al. 2004, 8).

→ "Leaders of virtual teams commonly and mistakenly assume that their team's dynamics will mature into trusting relationships, as they do for conventional teams whose physical proximity provides sufficient social cues for developing familiarity and trust. Leaders of global virtual teams, who must also contend with the lack of understanding due to cultural differences, face a double whammy. Without trust between teammates, processes stop and start erratically, motivation dies quickly, or worse, relationships heat up and are damaged, with productivity and communication suffering as a result" (Duckworth 2008, 8-9).

→ "One area of virtual teams that is both particularly critical and inadequately understood is trust. Generally speaking, trust and cooperation are extremely important for teams (Donovan, 1993) and are consistently seen as a key

success factor in successful collaboration (Herzog, 2001). Specific to new product development, Sweeney and Lee (1999) report that project managers from around the world rate teamwork, trust, and an emphasis on cooperation to be among the most central factors necessary for maximum team performance. Notwithstanding, although trust has received much attention in general, there has been little progress in explaining how trust interacts with the challenges and handicaps introduced by virtuality (DeRosa et al., 2004) and how trust ultimately affects task performance in virtual relationships (Jarvenpaa, Shaw, and Staples, 2004)" (Bierly et al. 2009, 552).

→ "The antecedents of trust identified in the framework (see Figure 1) were selected based on the belief that these factors, as a set, largely influence the interactive learning processes that individuals engage in to learn about one another in teams (i.e. trust development). Specifically, the framework identifies team member conflict (relationship and process), team member familiarity, perceptions of team member training, and team goal clarity as antecedents of trust. Virtuality is examined as a moderator of the relationships between the identified antecedents and trust. It is proposed that changes in the structural characteristic of virtuality, relative to how team members interact, will affect the relationship between the identified antecedents and trust. Further, drawing largely from the trust literature, the framework identifies cooperation as a key outcome of trust (e.g., Axelrod, 1984; Jones and George, 1998; McAllister; 1995). Again, it is proposed that changes in virtuality, as a structural characteristic of teams, will function as a moderator of the relationship between trust and cooperation" (Bierly et al. 2009, 553).
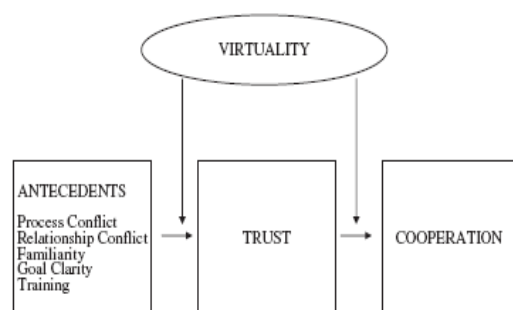

Figure 1. The Modifying Effects of Virtuality on the Antecedents and Outcome of NPD Team Trust

Cohesive team development in virtual, multicultural teams

Quotes relating to communication tools:

→ "Reliance on less rich communication channels may exacerbate conflicts by provoking misunderstandings; ease of withdrawing behaviors; diversity of work contexts; reliance on an emergent or assigned team leader" (Furst et al. 2004, 8).

→ As Köppel (2008) describes, virtual cultural teams have some negative pre-conditions compared to teams where a face-to-face communication is possible: In intercultural interactions usually non-verbal communication plays an important role. Non-verbal communications works best in face-to-face interaction so a virtual working environment means per se a disadvantage as communication channels are restricted or reduced.

→ "Difficulty in developing norms around modes of communication, speed, and frequency of responding, and commitment to use special software" (Furst et al. 2004, 8).

→ "In co-located teams, face-to-face interactions during the early stages of a project provide opportunities for building relationships based on common interests and permit individuals to analyze their colleagues' trustworthiness based on observation and conversation. Developing high-quality relationships is more difficult and takes longer when team members are geographically dispersed because reliance on electronic communications often diminishes communication frequency" (Furst et al. 2004, 8).

→ "A central concern for distributed team members is the efficiency and efficacy of distant communication. Team coordination or team behaviors are usually considered to be conducted more effectively in face-to-face environments than in distributed environments. Team members working from separate locations who communicate via telephone, e-mail or instant messenger exchange less information during a given period of time than their face-to-face counterparts because ICTs (Information Communication Technology) are less conducive to conveying information such as facial expressions or body gestures which are more easily noticed in face-to-face interactions (Stone and Posey, 2008). However, communication media such as e-mail is argued to be a lean method in its written format but not in its content which could also

indicate power cues (Panteli, 2002) or function as a 'communication buffer"
(Lai and Burchell 2008, 62).

→ "Many of our social cues come from physical presence—facial expression,
body posture, proximity, tone of voice, vocal inflection—while only a minority
are conveyed verbally. Thus the time team members spend "interacting" in
their virtual workspace contributes little to building the trust required for
commitment and collaboration. Leaders of virtual teams commonly and
mistakenly assume that their team's dynamics will mature into trusting
relationships, as they do for conventional teams whose physical proximity
provides sufficient social cues for developing familiarity and trust. Leaders of
global virtual teams, who must also contend with the lack of understanding due
to cultural differences, face a double whammy. Without trust between
teammates, processes stop and start erratically, motivation dies quickly, or
worse, relationships heat up and are damaged, with productivity and
communication suffering as a result" (Duckworth 2008, 8-9)

Quotes relating to team leadership:

→ "Many of the required competencies for global virtual team leadership are
not intuitive and must be explicitly taught, and a few are just the opposite of
those needed to lead conventional teams. At TRW Automotive, we train the
leaders of global virtual teams on how to build trust in the absence of social
cues and in the presence of cultural differences (…)"(Duckworth 2008, 9).

5.2.4 Team cohesion and its disclosure in common models of team development

There are different ways to categorize or set up activities of team development.
Three models should be introduced, focusing on the third model as its practical
eligibility is nicely proven in a recent scientific article, especially for a virtual,
multicultural environment:

1. Team development is quite often related to Tuckman ´s (1965) model of
four team stages Forming, Storming, Norming, Performing. According to
Tuckman, a team has to leave the first two phases behind to gain its full
effectiveness. Basically team cohesion takes place in all phases but especially

Norming seems to be the right phase for team developers to emphasize on team cohesion.   What Köppel (2008) describes as task-relating components of cohesion is mostly addressed in the Norming phase as we can read in Stahl´s (2007) publication about dynamic in groups. Stahl outlines the importance of the selection of sustainable common goals for a team, the meaning of rules and a number of concerns the individuals of a group have like: about whom to collaborate with directly, whom rather to avoid; clarification about one´s own role and position in the team; which individual goals in this group are achievable; etc. The latter belongs to what Köppel (2008) calls person related components.

Furst, Reeves, Rosen, and Blackburn (2004) provide a comprehensive table overview about Tuckman´s four stages. The attributes they align to each phase can be aligned to Köppel´s (2008) differentiation between task relating components and person relating components – see table below.

	Task relating	Person relating
Forming	• Clarify group goals and expectations	• Team members get to know each other, exchange information about themselves • Team members exchange information about the task at hand • establish trust among group members
Storming	• Conflicts surface as the group attempts to identify appropriate roles and responsibilities among the members	• Similarities and differences are revealed
Norming	• Team members recognize and agree on ways of sharing information and working together; team members agree on member obligations and team strategy	• Relationships are strengthened
Performing	• Team members work toward project completion …	• Actively helping and encouraging each other

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That confirms cohesion takes place in all of Tuckman ´s four stages. Only in Norming the focus might be on task relating components of cohesion as suggested from Stahl ´s (2007) alignments. Accordingly, interventions towards team cohesion might be chosen by taking up the typical phenomena of a stage. Apart from that, task relating interventions should be appropriate in all phases and especially in the Norming stage. Person relating cohesion should be appropriate in all phases but Norming.

Overall the diversification of task and person relating components of team cohesion appears somewhat artificial as both aspects are closely connected in their complexity. It can be assumed that doing one without the other is not possible**. Preparing cohesive team development special emphasize might be put on the diagnosis of the current level of cohesion and the identification of the dominant aspects to finally decide about appropriate intervention.**

Tuckman has been criticized for suggesting a succession of/ in its phases and that they are built upon each other. Recent scientific publications agree to the basic model however not to the idea of succession. According to Köppel (2008) the phases with their certain characteristics are existent; however, they can appear again and again and even mixed.

Duarte and Snyder even say: "This model has proved quite useful to many practitioners and team leaders in traditional settings, in which team members are all in the same place and engaged in predefined work tasks. However this model and others like it are not as useful when applied to teams that are virtual, exist in adaptive environments, or involve multicultural complexities" (Duarte & Snyder 2006, 188). For that they have developed a new model of Team Development.

2. Task and Social Stages of Virtual Teams (Duarte & Snyder, 2006): Duarte and Snyder ´s model shows a sequence of stages like Tuckman ´s model. Each stage addresses certain task relating and parallel to that certain social relating dynamics. Köppel (2008) outlines both aspects - task relating and person relating components - being important for cohesion in all stages. Duarte and Snyder do not use the term cohesion; however, what they describe triangulates

Köppel´s findings. Overall, their model appears very valid and applicable for virtual teams. They make both parties - team members and team leaders - accountable to manage tasks and social dynamics, saying: "The virtual environment does not contain many of the traditional means of managing the task and social aspects of team dynamics. Virtual team members and leaders consequently need to be more cognizant of how they develop and implement strategies to manage those dynamics. They need t understand the stages of each type of dynamics." (Duarte & Snyder 2006, 189).

3. In her article about TRW Automotive, Holly Duckworth provides an excellent example of the applicability of Beckhard´s (1972) GRPI-Model especially to develop virtual, multicultural teams:
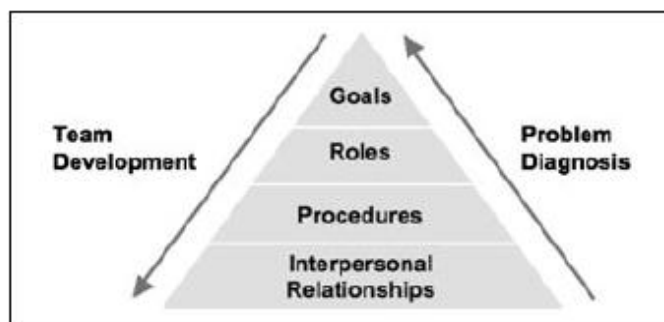
"TRW Automotive teaches leaders of virtual teams to use the Goals, Roles, Procedures, and Interpersonal Relationships (GRPI) model, an approach generally applicable to teams in any setting or situation, but in this case with special adaptations for **addressing the particular challenges inherent in diverse teams whose interactions will be virtual**. The model is an essential leadership tool for team development and diagnosis of problematic dynamics" (Duckworth 2008, 12).

"Leaders are also taught to use the GRPI model in reverse to diagnose team issues, as the arrow on the right side of Exhibit 2 suggests. Frequently, interpersonal relationship issues are caused by unclear procedures, procedural issues stem from poorly defined roles, and role issues are the result of improperly developed goals." (Duckworth 2008, 14)

Cohesive team development in virtual, multicultural teams

In her article Duckworth provides two practical applications proofing the eligibility of the GRPI for a virtual, multicultural environment:

I. "For example, in a recent training class for managers of continuous improvement leaders and specialists at TRW Automotive, one U.S.-based project manager related difficulties he was having with his global virtual team's dynamics. In particular, his two Romanian engineers had missed some team teleconference meetings, didn't seem to be fully participating in the meetings they did attend virtually, and had been late delivering some of their work. Their U.K. teammates were particularly resentful of the Romanians' behavior. After learning about the GRPI model and leadership strategies and practices for global virtual teams, the program manager, realizing that he had never "advertised" members' competencies to their teammates, made a point to communicate to his team the skills and training each member brought to the team's important work. Upon learning that the Romanian engineers were highly educated, certified, and very experienced, the U.K. engineers began to behave more inclusively toward the Romanians, following up with them between meetings, and laying the groundwork for trust. The project manager soon understood that it was the behavior of the U.K. engineers and himself — all of whom shared a common language and similar culture—that had created the emotional distance with the Romanian engineers, adding to the Romanians' feelings of isolation and the cultural "strangeness" of the English and American team members. There was little engagement between the two groups until the leader took steps to assure everyone that every member was competent, and specifically how each person's skills would be utilized on the virtual team."(Duckworth 2008, 14-15)

Duckworth relates the disclosure or better advertising of virtual team members' competencies to their teammates to the Roles-layer of the GRPI-model:

"At this level, the leader strives to build each member's understanding of their dependence on every other member of the team, and why their teammates have been chosen for their roles. The team leader has each person explicitly state why they, as individuals, are on the team. This is also an opportune time to have them share background information on experience, education, or training.

The desired outcome of this important step is everyone 's clear understanding of the application of each individual's expertise toward the team goal" (Duckworth 2008, 13).

Introducing the GRPI model before describing this case Duckworth says:

"Only after goals, roles, and procedures are established can the leader work with the team on building its essential interpersonal relationships." (Duckworth 2008, 12)

This example shows that the eligibility of the GRPI Model is not only to set up team development but also to diagnose a problem in a virtual team. The team manager was able to identify the problem on the Roles layer. He became conscious that he himself acted as a strong member of a cultural sub-team – the "U.K. engineers" excluding the two Romanian engineers who build a cultural sub-team of their own. Advertising the competencies of the Romanian engineers to their U.K. team mates the team manager succeeded in improving the Interpersonal Relationship. U.K. team mates became more inclusive towards their colleagues in Romania so overall the distance and isolation between the two sub-teams was reduced. As a result there was an improvement on the Procedure-layer as team meetings worked better. Finally the team was better equipped to reach its Goals.

II.   The second example is about "Untangling Cultural Norms", basically questioning the immanent succession of the four layers of the GRPI model if applied for team development:
"TRW Automotive 's "Influence Skills" training events typically include a cross-section of participants from the cultures within a region—Mexican, Canadian, and U.S. leaders attend the North American events, and participants from Poland, Germany, Spain, Italy, and the United Kingdom attend the European sessions. Teaching the GRPI model to a multicultural class vividly illustrates for participants just how careful attention to goals, roles, and procedures can preempt some of the team dynamics that frequently stem from differences in cultural norms, such as miscommunication. For example, when North American participants experience firsthand the process of determining how they will make decisions going forward as a team—the third level of the

GRPI model—they quickly learn from classmates that Mexican cultural norms dictate the importance of relationships in getting work done, while U.S. cultural norms value technical ability. The class is challenged with developing a procedure that accommodates these differences, one that gets the right people with the right technical ability involved in making decisions." {Holly Duckworth 2008 #15}

This example shows how awareness about cultural differences can be conveyed to group leaders in a very practical way, leveraging a basic model however showing how that static appearing model might be handled with flexibility according to the situative environment.

5.2.5 Explaining the research focus: cohesive team development

Situation**:** In 5.2.4 there is evidence that cohesive team development is an implicit element of the models of team developments being described. And all models imply both the task and person/social relating components. However, there is no evidence from the academic literature being investigated for this thesis that **a dedicated cohesive team development is being practiced** for virtual teams. 5.2.2 describes why virtual teams are so important - productivity appears the central aspect. "Productivity is important in all teams that are formed to produce a result. The goal of well-managed task dynamics is productivity" (Duarte and Snyder 2006, 188). So it can be assumed task relating components of team cohesion to be a team lead´s priority when developing a team given the limited resources they have.

Challenge: Chapter 5.2.2 explains why virtual teams are important and become even more important and common. More and more employees work in virtual environments and have less face-to-face interactions. There are many more challenges for virtual teams (see chapter 5.2.3) than for face-to-face teams. Duarte and Snyder emphasize on the fact of "(…) face-to-face contact is not part of everyday life (…)" (Duarte and Snyder 2006, 188)*,* a special challenge for virtual teams which means loss on social cues, leading to conflicts and lack of trust. And collaboration tools do not yet have the full potential to replace face-to-face meetings.

Certainly, conflicts and lack of trust have a **negative effect on the productivity of a team and the quality of the results**. I would consider this

an empirical fact even not being quantified from the literature being investigated for this thesis. Increasing cost sensitivity of organizations leads to a reduction of team development activities in a face-to-face environment and maybe to a reduction of team development overall, restricting it to the cheaper virtual channels. The highly competitive environment these virtual teams usually work in means a focus on task relating components weighting the person or social relating components of team cohesion less important. So it's important to consider Duarte and Snyder´s findings: "The goal of well-managed social dynamics is a feeling of team unity. This feeling, although not always a prerequisite for high performance, helps team members maintain motivation, perceptions of trust and interaction quality. It also contributes to positive attitudes towards future participation." (Duarte and Snyder 2006, 188). The term "well-managed social dynamics" reminds on Köppel ´s (2008) findings about the potential negative effects of high cohesion for example if strong sub teams materialize which might inhibit the full integration of team members in a bigger team, finally leading to a loss on synergies. Duarte and Snyder postulate: "**Team leaders and members must navigate the task dynamics and social dynamics to ensure good performance and feelings of being part of the team**" (Duarte and Snyder 2006, 188). It has been noted in chapter 5.2.4 that the one component depends on the other, they are in a close interdependence even this interdependence seems not to be comprehensively dealt with in recent academic research.

Solution: The "New Model of Team Development" Duarte and Snyder (2006) have developed for virtual teams - "Task and Social Stages of Virtual Teams" (Duarte & Snyder 2006, 189) - is a great framework to bring both aspects in a closer correlation as they parallel tasks and social activities for each phase. However, in common literature there is a lack of information about dedicated interventions matching certain challenges of virtual, multicultural teams. And of course, the knowledge about the need and the effect of cohesive team development should be spread, awareness should be arisen with organizations and team leads about its potential.

In summary: This thesis focuses on capturing and describing the current situation of team development in virtual, multicultural teams and the meaning

of cohesion especially. Literature being analyzed for this thesis leads to two new basic research assumptions which cannot be dealt with in this thesis but might be investigated by follow up research:

1. Dedicated and frequent cohesive team development intentionally taking up the special challenges of virtual multicultural teams will help to unfold the full potential of virtual teams.

2. The evolving electronic media if leveraged appropriate to the goal of an intervention are useful media to perform team development in virtual, multicultural teams having some potential to partially replace face-to-face meetings.

5.2.6 Usage of collaboration tools in virtual teams

Duarte and Snyder (2006) spend a whole chapter on what they call "crossing technical boundaries". They highlight "two primary factors that can help virtual teams evaluate the effectiveness of one technological approach over another in different situations: the amount of social presence required and the amount of information richness required." (Duarte & Snyder 2006, 25). They provide a table showing a qualitative matching of team tasks versus pure play communication modes like audio only, video only and data only. This seems to be a very basic and high level alignment that lacks the detailed empirical validity even the sources are provided. Further they appear obsolete because in our days the three communication modes are more often combined and not so much used as pure plays any more. The tasks the authors outline do not really fit into the topic of team cohesion thinking about realizing cohesive team development through technical channels.

More interesting are other factors in technology selection the authors quote, like permanence, symbolic meaning, experience and familiarity with virtual operations, time constraints, organizational and functional cultures and, access to technological training and support. Definitely, those other factors are worth to consider when setting up virtual cohesive team development activities. Going forward Duarte and Snyder (2006) outline the electronic options of collaboration that virtual teams dispose of. They cluster and define two types of groupware: synchronous and asynchronous (Note: their definitions have been taken over in the definition part of this thesis, see above). They outline six

types of synchronous groupware and seven types of asynchronous groupware and define each type very detailed. Most interesting and easy to use for practical application are the tables they provide: "The text in each table summarizes the strengths and weaknesses on factors such as social presence, information richness, and permanence" (Duarte & Snyder 2006, 32). The tables match the applicability of each tool on four basic team tasks which are

1. Generating ideas and plans and collecting data
2. Problems with answers
3. Problems without answers
4. Negotiating technical or interpersonal conflicts

and other factors.

Even though the authors do not provide empirical evidence on the validity of their assessments, I would consider their assessments valid and applicable when selecting tools for virtual collaboration. Overall, their assessment appears empirically founded and very well though through. **When preparing virtual team development for sure that shall be a very helpful framework**. The four types of basic team tasks they match however are very generic and not necessarily applicable on each type of team development. **Especially when thinking about team development aiming to influence team cohesion more attention should be put on the selection of interventions and to find the appropriate collaboration tool - or even the right combination of more than one collaboration tools - to provide the best technical prerequisite of making an intervention successful**.

This leads to the conclusion that in preparation of a virtual cohesive team development activity the selection of the collaboration tool should be the very last step.

To suggest a process of setting up a virtual cohesive team development:

1. As a first step there should be a clear diagnose about the issues in the team;
2. A second step should be the definition of reasonable goals/required outcome of a cohesive team development;
3. Then it should be thought about interventions having the potential to be successful;
4. As a last step the type of collaboration tool should be identified with the highest potential to place the intervention independently of its availability

in a corporate environment; if a certain tool would not be available there might be a chance to source it externally on demand.

Duarte and Snyder ´s publication has to be seen and interpreted with their professional background both being experienced in human resources consulting and organizational development for big global companies and such representing just the practical needs of corporations or just the modern economy.

Another interesting research area which might have the potential to shed light on the usage of collaboration tools in virtual teams is the Human Factors Research. Strohschneider ´s (2010) article about human factors and intercultural team development initially seems to provide context about **improvement of human collaboration in and with complex technical systems**. However, Strohschneider clearly focuses on the research aspect of human collaboration and not on the application of technology or the conscious selection of technology. So this article did not provide any better insights and I decided not to follow that route further as there is some evidence from different publications. However, some findings of this article are taken up in different paragraphs of this thesis.

5.2.7 Answers to the four core questions of this thesis

1. What makes collaboration in virtual, multicultural teams successful?

There has been written a lot about organizational and especially team development seeking to make collaboration in teams successful. Three frameworks of team development have been introduced above. To roughly summarize what has been discussed:

In general:

- All teams and virtual, intercultural teams as well are more successful when they have mastered the basic challenges of each team stage, be it according to Tuckman ´s model or another one
- As the GRPI-Model suggests, Goals, Roles and Processes should be clearly defined, having a direct effect on the quality of Interpersonal Relationships

And in particular:

- Awareness, knowledge and skills about cultural differences and how to deal with them from both parties: team leadership and team members

- Leadership that is trained on leading in a virtual environment

- Team leads need to take an active role in doing team development either in their role as team lead or rather in a moderating role. They need to be sensitive about social and task relating dynamics in their teams and be prepared to address any issue and find the right intervention timely to keep productivity of their team on a high level

- Not only the team lead should be sensitive for task and social dynamics, but also each team member should be aware and reflect about team processes

- A more conscious application of common collaboration tools, especially considering cultural aspects and the level of social presence

- A higher level of actively maintained social presence of single team members in collaboration with their team mates

- And as this thesis suggests: Dedicated cohesive team development towards an overall balanced level of team cohesion, stimulated by the team lead

2. How, where and when does it makes sense to leverage technical collaboration tools for team development? Which limitations do they have?

In virtual environments, collaboration tools - or alternatively phrased electronic forms of communication (see definition above) - are basic prerequisites which make virtual collaboration possible. It´s logical to apply them for team development purposes as well which is a very basic process in a team.

Per definition virtual multicultural teams are geographically distributed. Corporations and especially stock traded companies are very sensitive about cost savings and bringing virtual teams face-to-face together as they imply a relatively high investment. As electronic forms of communication became much more common and as their functionality with respect to all three kinds of communication modes audio, video and data (Duarte & Snyder 2006) became more capable and stable, those tools are more and more applied for team development. Corporations enjoy high cost saving, however they should be

aware about the fact that virtual team development might not be that effective as it could be.

Indeed, collaboration tools might initially be leveraged for team development purposes only because of cost saving reasons. However Duarte and Snyder (2006) proof their high potential for virtual collaboration in general and if applied consciously even team development as a special aspect of virtual collaboration can be done effectively and efficient. In the second chapter of their publication "Mastering Virtual Teams" they show the strengths and weaknesses of all types of synchronous and asynchronous groupware. They highlight two main factors - Social Presence and Information Richness – as evaluation criteria for a collaboration tool and add other factors in technology selection like permanence, symbolic meaning, experience and familiarity with virtual operations, time constraints, organizational and functional cultures and access to technological training and support.

Interestingly, Duarte and Snyder relate technological considerations in virtual collaboration to Hofstede ´s cultural factors

> → Power Distance
>
> → Uncertainty Avoidance
>
> → Individualism-Collectivism
>
> → Masculinity-Femininity and Context

They proof a connection between technology acceptance and culture. Triangulating their findings with the results of the empirical part of this thesis their alignment needs to be questioned: interviews with different team members from different cultures clearly show the tendency towards information rich media with a high level of social presence. Unfortunately Duarte and Snyder carry the traditional understanding of Hofstede ´s cultural dimension further treating the national cultural dimensions rather static. They do not consider the critical discussion around Hofstede which has already been noted in the definitions part of this thesis above.

And finally Duarte and Snyder provide a great overview about the "Impact of Technology: Because virtual teams interact by means of electronic communication and collaboration technology it is important to anticipate its effect on team dynamics" (Duarte & Snyder 2006, 198). They provide some great evidence when it makes sense to leverage technology targeting both task-

related team dynamics and social dynamics. Just to highlight about few selected messages: "(...) increase the team ´s depth of analysis and clarify vague and ambiguous problems (…) decrease the time it takes a team to move to stage 4, execution (…) increase a team ´s ability to generate plans quickly (…) avoid unproductive personal conflicts about different approaches (…) facilitate the exchange of documents and ideas between team members (…) using technology may foster equal participation and inclusion (…) reduce conflict over roles and status, because everyone has a chance to contribute anonymously (…)" (Duarte & Snyder 2006, 199).

Köppel (2008) starts discussing the connection between technology usage and culture with the origin of common communication technology in the Northern-American culture. Therefore those tools carry culture specific values (like focusing on processes) and support culture specific behavior (Köppel 2008, 30). She highlights that it has been empirically proven that even those tools might be globally spread and in use technology cannot be considered value- or culturally neutral. Different cultures leverage the same technology differently which has to be seen an important element of the intercultural challenge of virtual teams as technology is the key channel of communication and cooperation.

In summary:

- Collaboration tools per definition are part of a virtual working environment, they are present and being leveraged in all virtual working environments for different team processes
- As virtual teams get more and more common with those tools it gets easier to apply them for all kind of team processes where communication and information exchange is required
- Meeting virtually is a way for companies to replace face-to-face meetings in a cost effective way; it makes sense to leverage those tools to perform cost effective team building activities however tools should be carefully selected as their potential of mediation is limited regarding the communication modes audio and/or video and/or data they carry
- Collaboration tools can be consciously leveraged to impact both: task-relating team dynamics and social dynamics

- Collaboration tools are differently used by different cultures and are one potential source of conflicts in virtual and virtual multicultural teams
- Collaboration tools are limited with respect to social presence of participants, information richness, permanence, symbolic meaning, experience and familiarity with virtual operations, time constraints, national, organizational and functional cultures and access to technological training and support

3. Which effect does cohesive team development intend on virtual, multicultural teams?

When doing cohesive team development it should be thoroughly considered whether the current level of cohesion should be increased or decreased as cohesion potentially has positive and negative effects. Overall it should be tried to get the balance in a team right based on a thorough analysis of the current level of cohesion.

→ Köppel (2008) refers about the three purposes of cohesion which might be considered the meta-effects of cohesive team development:

1. stability of the group over time
2. attractiveness of the group for old and new members
3. ability to compensate pressure and stress

(Köppel 2008, 48)

… finally resulting in two key effects on the two parties:

❖ Employer: an overall increase of team effectiveness and efficiency according to the formula GROUP EFFECTIVENESS = POTENTIAL – CONFLICTS + SYNERGIES (Steiner 1972)

❖ Employee: psychological well-being

More detailed (Note: the following information has mainly been derived from Köppel´s (2008) publication about conflicts and synergies in multicultural teams):

Psychosocial well-being of team members:

▪ A common, informal socialization of all team members (Köppel 2008)
▪ Increase motivation of team members through identification with the team

- Create a sense of belonging together through discovery of similarities
- Create or support increase of trustful relationships amongst team members
- Create a positive social climate and secures well-being of team members
- Reduce conflicts
- Enable synergies through mutually disclosing skills and resources of the single team members
- Mutual care of team members

Improvement of the organizational set-up of the team:

- Integrate isolated team members
- Increase synergies amongst team members from various sub-teams
- Balance relational care within sub-teams versus a bigger team
- increased cooperation and sharing of information and resources
- Creation of a certain team culture:
- Balancing a culture of competition amongst individuals towards a culture of cooperation and the common goal of the team; reducing the feeling of competitive pressure on the individual team members, might increase the level of trust amongst team members
- Allow a team history to develop
- Prevent cultural stereotypes

According to Köppel (2008) the negative potential of cohesion is mainly founded in this aspect: high attraction amongst team members might lead to increased social activities and personal interaction which might be contra productive to the fulfillment of a group´s tasks. The performance of a group could decline. Further the homogeneity amongst team members might increase and this might reduce a groups creative potential because members might tend to quickly accept a common opinion instead of representing their own. Strohschneider (2010) confirms that individuals of teams with a strong level of cohesiveness might feel a stronger peer pressure which might lead them to be more homogeneous in their behavior finally resulting in a loss or at least reduction of their unique potential for the larger virtual team.

4. Are there replicable interventions to support team cohesion?

In their chapter about "Measuring Team Performance" Duarte and Snyder (2006) highlight about possibilities to assess social dynamics. Tools they suggest to leverage are online questionnaires for team members, observation guides for audio- and videoconferences, professional observer from outside the team using guides or protocols in virtual meetings to examine processes and dynamics. Furthermore they provide a list of symptoms of team issues and suggest possible interventions by the team leader. However the interventions they suggest address rather task relating components of cohesion and focus more on dyadic communication between the team lead and single team members. Few only target the whole group. All of them are rather applicable on demand than applicable for a dedicated cohesive team development event. They request a team lead clearly to be active in his/her role as team lead and so to speak emphasize on team development as leadership task.

When suggesting interventions for the Norming stage of Tuckman´s team stages Stahl (2007) talks about the team lead as moderator supporting the group. The interventions he suggests refer to task dynamics, comprising also aspects of social **dynamics.**

In their article "Managing the life cycle of virtual teams", Furst, Reeves, Rosen, and Blackburn (2004) research six virtual teams from a large food distribution company. They leverage Tuckman´s stage model and track the interventions for all stages which have been applied in a table: "Managerial Interventions During the Virtual Project Team Life Cycle" (Furst et al 2004, 15).

2004	Furst, Reeves, Rosen, and Blackburn		15

Table 3
Managerial Interventions During the Virtual Project Team Life Cycle

Formation	Storming	Norming	Performing
• Realistic virtual project team previews	• Face-to-face team building sessions	• Create customized templates or team charters specifying task requirements	• Ensure departmental and company culture supports virtual team work
• Coaching from experienced team members	• Training on conflict resolution	• Set individual accountabilities, completion dates, and schedules	• Provide sponsor support and resources for team to perform
• Develop a shared understanding and sense of team identity	• Encourage conflicting employees to work together to find common ground	• Establish procedures for information sharing	
• Develop a clear mission	• Shuttle diplomacy and mediation to create compromise solutions	• Distinguish task, social, and contextual information; design procedures appropriate for each	
• Acquire senior manager support		• Assign a team coach with skills for managing virtually	

Cohesive team development in virtual, multicultural teams

Their empirical evaluation proof in all team stages team cohesion and dedicated interventions towards team cohesion are important. For example amongst other interventions in the Forming stage there is an intervention called "Develop a shared understanding and sense of team identity"; in the Storming stage they talk about "Face-to-face team building sessions", in the Norming stage they have one "Distinguish task, social, and contextual information; design procedures appropriate for each". Those even target person relating components of cohesion, not only the task relating components. Noteworthy to say that the interventions are not necessarily targeted on the team members only. Some are targeted so to speak on the team´s environment for example finding an external sponsor or other external support. That´s an interesting finding, that interventions must not be necessarily target the closer team, they might target selective non-members outside the team but having an effect on the team.

Holly Duckworth (2008) suggests three basic strategies for team leadership in cyberspace:

- "Making members' competencies and commitments visible to each other,
- Maintaining clear and consistent work practices,
- Assuring clarity of communication, and
- creating a team memory" (Holly Duckworth 2008, 9)

Going further Duckworth explains each of the four items. Two interesting findings can be drawn from her description: 1) working on team cohesion is a continuous leadership task not being limited to certain regular meetings or events. 2) Duckworth points out about the importance to create a team memory: "To compensate for the lack of shared "memory" that face-to-face interactions among team members would reliably produce, the virtual team needs formal documentation of the key information essential to trust building and to performance of the team's work, thereby assuring a complete, consistent record of the team's "history" that any member can readily access" (Duckworth 2008, 11).

Unfortunately, all interventions described above are missing details about the real activities brought in by individuals or a team.

In summary:

Literature provides ideas for replicable interventions however they keep rather generic

- Most interventions quoted so far have to be considered synchronous interventions and remain relatively pale not detailing real actions or activities being placed
- Team cohesion can take place in all team stages covering both aspects: person and task relating and as such interventions might be selected
- Team cohesion should be a continuous leadership task and not only be limited to certain events or regular meetings
- When contemplating about the right intervention for team development it has to be thought about whom to target: it must not necessarily be a team member, it might also be somebody outside of the team

5.2.8 Relating topics from recent literature worth mentioning

→ **The meaning of trust in virtual, multicultural teams: is it important or not?**

There are contradicting research results for example:

1) In their article "The effect of interpersonal trust on virtual collaborative relationship performance" Paul & Reuben (2004) emphasize the meaning of different types of trust on a positive collaboration: "Findings from a study of 10 operational telemedicine projects in health care delivery systems are presented. The results presented here confirm, extend, and apparently contradict prior studies of interpersonal trust. Four types of interpersonal trust calculative, competence, relational, and integrated are identified and operationalized as a single construct. We found support for an association between calculative, competence, and relational interpersonal trust and performance. Our finding of a positive association between integrated interpersonal trust and performance not only yields the strongest support for a relationship between trust and VCR (Virtual Collaborative Relationship) performance but also contradicts prior research. Our findings indicate that the different types of trust are interrelated in that positive assessments of all three types of trust are necessary if VCRs are to have strongly positive performance.

The study also established that if any one type of trust is negative, then it is very likely that VCR performance will not be positive. Our findings indicate that integrated types of interpersonal trust are interdependent, and the various patterns of interaction among them are such that they are mutually reinforcing. These interrelationships and interdependencies of the different types of interpersonal trust must be taken into account by researchers as they attempt to understand the impact of trust on virtual collaborative relationship performance" (Paul & Reuben 2004, 183).

2) In their article "The Moderating Effects of Virtuality on the Antecedents and Outcome of NPD (New Product Development) Team Trust" Bierly et al. (2009) express that trust is less important : "In addition, virtual teams tend to have more fluid membership than traditional teams (Martins et al., 2004) and tend to be composed of a wider variety of members who do not share common assumptions, knowledge, work styles, and sense-making structures (Breu and Hemingway, 2004; Shapiro et al., 2002). Thus, they tend to work independently with less focus on learning and interdisciplinary interaction, and trust is less of a factor. Further, virtual team members tend to have less social and personal interaction (Goodbody, 2004; Lewis, Shea, and Daley, 2005) as well as a greater difficulty developing a common set of objectives (Blackburn, Furst, and Rosen, 2003). Consequently, members would not require as much trust if they were interacting less and pursuing different ends. In summary, all of these characteristics of virtual team interaction would negatively impact the importance of interpersonal trust on subsequent team cooperation" (Bierly, Stark and Kessler 2009, 557)

At least the meaning of trust is interesting enough for all authors mentioned to theoretically and empirically set up research on that topic. Their different results appear valid for their particular empirical scopes (Note: the first article deals with virtual teams in telemedicine, the second article deals with teams focusing on New Product Development). One idea to refine and proceed with research on the topic of trust in virtual teams is to narrow it down to the types of virtual teams Duarte & Snyder (2006) suggest.

Köppel (2008) even spends a whole chapter reflecting upon recent research about the topic of trust. She proofs that trust is a key issue in virtual teams and that it becomes an even more complex issue in a multicultural environment.

And another recent article proofs the interdependence of trust and culture. "There is evidence in the culture literature that initial trust of strangers varies across cultures. One of the dimensions of culture that is most relevant to this issue is the task versus relationship orientation of a culture. Task-oriented cultures seem to have a higher initial trust of strangers and therefore a higher propensity, while relationship-oriented cultures need time to develop a relationship prior to working on the task." (Schoorman et al. 2007, 351)

→ **"Working conditions predicting interpersonal relationship problems at work"   (Stoetzer et al, 2009)**

This is the title of a recent article that has been published in the European Journal of Work and Organizational Psychology. When further developing a detailed framework for cohesive team development, an important element for the identification of cohesion relating issues might be to investigate the physical and psychological working conditions of team members to potentially conclude from those on the issue.

→ **The Role of High-quality Interpersonal Relationships and Psychological Safety on learning behaviors in the Workplace (Carmeli, Brueller and Dutton, 2009)**

As this thesis proposes cohesive team development setting up on interpersonal relationship, another interesting aspect would be to research collaborative learning in team considering the aspect of psychological safety. On the one hand, collaborative learning could actively be leveraged as an intervention to stimulate team cohesion. On the other hand successful collaborative learning might require high-quality interpersonal relationships and a high level of psychological safety of the team members involved, especially in a virtual environment.

6. Empirical part

6.1 Research dimensions and assumptions:

The empirical part of the thesis investigates four dimensions: Multiculturalims, Team Cohesion, Collaboration Tools and Interventions. Two more dimensions – team development and virtuality of teams – have been dealt with second priority. Much has been written about them so they have been combined with other dimensions (for example virtuality has been asked for in combination with multiculturalism and of course it is a prerequisite of each other dimension).

1. **Multiculturalism**:
   → Cultural sub-team inhibit team cohesion of the bigger team through their strong cultural stamp building "island"
   → Trust is a cultural dimension which influences the level of collaboration and engagement between team members of different cultures

2. **Team cohesio**n:
   → There is a common understanding about what team cohesion means
   → Support of team cohesion in virtual, intercultural teams is a special challenge companies need to face but have not done sufficiently so far
   → Basically, increase of team cohesiveness can only be gained through increase of trust among team members

3. **Collaboration tools:**
   → Collaboration tools become more mature and capable to replace face-to-face meetings
   → Collaboration tools in use carry a certain cultural stamp from the culture (US) they have been developed in. Hence their acceptance is different from culture to culture

4. **Interventions:**
   → Currently, interventions for cohesive team development are rather chosen by accident than by intention towards a certain effect
   → Use of collaboration tools for team building activities can per se be considered an intervention. Collaboration tools can be consciously / intentionally leveraged to gain a certain effect in the team
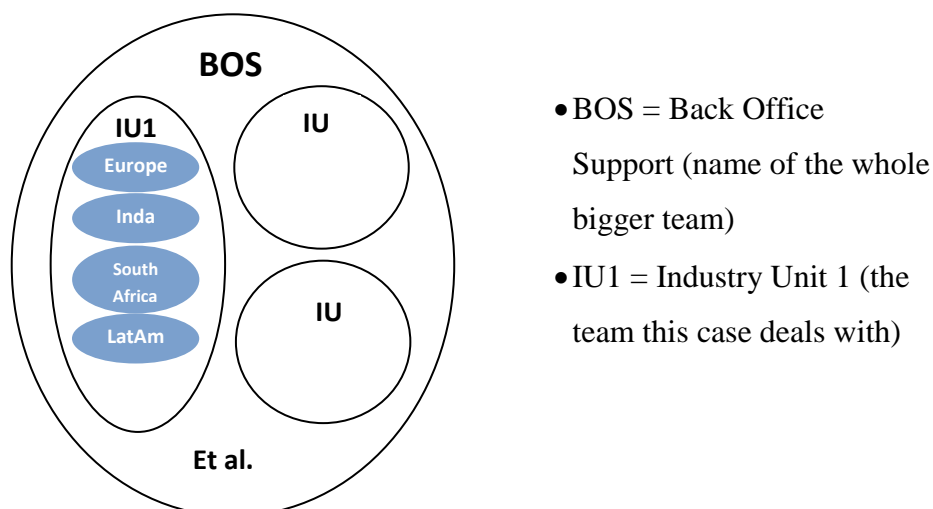
6.2 Case studies

This chapter describes two different cases of virtual multicultural teams. They have been chosen applying Anselm Strauss´ idea of "theoretical sampling" as outlined in chapter 4. Each case starts with a general description of the team and the interviewees. All interviewees have English language skills but none of them is a native English language speaker.

6.2.1 Case 1

The first team is an international team providing back office support in a certain area to the consulting practice of an international IT Services company referring to a certain industry unit. (See graph: IU1-BOS = Industry Unit 1 Back Office Support). It belongs to a bigger department (See graph: BOS = Back Office Support team) which is globally organized having several more sub-teams like IU1-BOS. IU1 has approximately 26 team members. In its basis structure the team exists for more than 12 years having been started in the European countries. In the corporate environment that team works it is considered to be one of the most industrialized and effective teams amongst its peer-teams. The team is set up as a profit center aiming to be rechargeable in the company or departments they work for. Since the early 2000s the parent company has put a stronger emphasis on support from low-cost countries and the team management had started to build up low cost teams initially in South Africa and later in India. Today the team members of IU1 are spread across 11 countries covering almost all big geographic regions and time zones (Europe, Africa, India, China, and Latin America).

Figure 2: Case One

- BOS = Back Office Support (name of the whole bigger team)
- IU1 = Industry Unit 1 (the team this case deals with)

Cohesive team development in virtual, multicultural teams

There are two strong sub-teams in India and South Africa representing each 30% of the team. Both sub-teams mainly consist of members having one to five years professional background in that company. The other team members are spread across the other countries, being at least on specialist level, more often on manager or even senior manager level having 7 years + professional background in that company. The team performs smaller or bigger projects lasting few hours up to a couple of months. Project teams in average are sized between two and five members. They are put together based on a certain area of specialization being required for a dedicated task, assuring an optimal blended cost mix between high and low cost countries. Members of a project team usually represent at least a mix of two national cultures, sometimes even more.

The team heavily relies on collaboration tools: asynchronous tools like email have been fundamental to use from the team´s start; synchronous communication tools like voice telephony and teleconferences are in experienced usage as well as chat systems, desktop sharing and partly even video systems like webcams and video conferencing. Single members are experienced in social media tools like blogging, twitter etc. however those have not been established for the overall team´s usage.

Face-to-face and virtual team development has been and is being continuously done. Overall current team development is focused on skill building with respect to professional industry knowledge required. Individual skill development following a foundation skills plan is provided as well, mainly in dyadic relationship between line managers and their managees. Intercultural training has been provided only limited and not consistently amongst all team members historically. In its history the whole global team had the opportunity to meet in person in 2009 with elements toward cohesive team development. Few team members having been hired after that have not had the opportunity to meet all their global team members in person. However they are established in their local sub-teams in India or South Africa. Dedicated virtual cohesive team development has been conducted twice in November 2010 and in October 2011 – being set up as pure fun events with the goal to get to know each other better.

Cohesive team development in virtual, multicultural teams

Given its long history this team is a very mature one. It is set up and designed for sustainable presence. Talking with Tuckman the team phase "Performing" is the one to be attributed to this team. Stahl (2007) highlights some characteristics of that phase: finally the team is working; a basic structure for cooperation has been established however needs to be adjusted ongoing for the unexpected and unforeseeable; directives need to be specified; new directives have to be set up as naturally gaps occur; there is a stabilization and an evolution in the group based on the achievements of the prior phases Norming and Forming where the group has gone through conflicts, having been out of balance (Stahl 2007, 154 – 157). So overall there is still a remarkable dynamic in that team however now on a grounded base missing the high volatile unbalance of the phases before.

This team has been chosen because it is a very mature team, assuming team cohesion in a mature team is higher than in younger teams. It has a multicultural set up covering 11 nationalities. Given the geographical distances and different time zones virtual collaboration plays a very important role. It can be assumed that team members are very common with cultural diversity and virtual collaboration. Additionally, few weeks before the interview a virtual team event had been performed aiming on team cohesion. It was the second event alike and so it can be assumed there was an effect on the team members to be interviewed about.

Having started working on this case it was considered a "best practice" providing the qualitative benchmark for other cases (Note: not only from the empirical part of this paper but also referring to the theoretical part of it). Three interview partners have been recruited from this team. They were chosen to represent each of the two strong sub-teams - South Africa and India - from a team member perspective, hoping to get evidence on the research dimension of multiculturalism as forming factor of the total team. The third interview partner as a team lead has another perspective on the team than the two team members so that adds another contrasting perspective.

Interview Partner 1: IP1_1 is an experienced team member from the South Africa team. The South Africa sub-team per se would be worth a separate investigation as in itself represents a highly cultural mix given South Africa ́s history. The cultural homogeneity of that team has to be considered low. IP1_1

grew up in that cultural heterogeneity of South Africa and has a high awareness and knowledge about intercultural differences. Not sure about the dedicated training towards specific skills and behavior to master intercultural differences IP1_1 might have received however IP1_1 masters the daily interaction with team members from wherever with a high level of empathy. IP1_1 has a certain area of expertise and does project management in the global team.

Interview Partner 2: IP2_1 is an experienced team member from the India team. The India team appears much more homogeneous than the South African team however per-se represents a mix of cultures as well. The team members within their local sub-team seem to be able to deal with their social and cultural diversity; cultural conflicts might be more latent and not so obvious. The level of cohesiveness appears higher compared to the South African sub-team.

Interview Partner 3: IP3_1 has a team lead function and is the most mature and experienced team member. IP3_1 takes part in daily operation adding the strategic view on that team. IP3_1 is located in Europe and has a certain interest to develop the team further assuring a high level of performance.

Interview 1 – IP1_1:

This interview has been performed Oct 28th, 2011. The record is about 56 minutes.

Multiculturalism:

Q: How would you describe the effect the cultural sub teams in your team have on the dynamic of the whole group?

IP1_1: First of all the biggest impact I see is with regards to communications in the way that people communicate with each other in a positive sense. I can give an example. The way you communicate with the Indian colleagues: it's a very respectful way but also I often learn from the way they respond to an email how they formally and respectfully put a remark or saying thank you. It´s also a learning curve to kind of copy/cut off their way of respect of being very respectful towards anyone. I didn´t really pick up cultural differences besides this – this is quite a big impact. And then also I think maybe in other teams as well when we deal with other geographies it has an impact in sense of managing expectation from people. For example when I deal with a German

customer expectations are totally different from what I will have from the ISS team in North America.

Q: What role does "trust" play in your team?

IP1_1: With regards to trust I think it's a sub component of an overall trend within the team. And the overall trend is […] because the competitive nature of being a high performer and getting out there and just do the work. I can maybe speak from a personal perspective in a sense yes I ´m unbelievably proud in the work I do so I have got a lot of respect for my own work and for others and the way I deliver it to people so you always go the extra mile. And in that way also become competitive with the other people who don ´t have the same passion as you have. […] You perform well and you might be promoted or advanced to the next level. They see that maybe not as due to your hard work but because you are favored by certain people. And then immediately there is that trust issue of can that person be trusted. I speak also of experience within the South African team because that ´s always an issues which comes up with our GES (Note: GES = Global Employee Satisfaction) survey that trust is a major issue and that ´s exactly because of people feel that there ´s no open discussion […] Competitiveness has so many factors, role playing components that it often rolls down to a big trust issue I would say and of course other issues as well.

Q: In which way / under which aspects is the combination of virtuality and multiculturalism a challenge for you as team member?

IP1_1: The major thing is because you can ´t see the person you have no visual idea of the person. You sometimes misinterpret the way a person comes across. And another example I can give when I spoke to people on the phone I thought they sound rude and you interpret them that is maybe how they are or the way they speak to you. And then when you officially meet them in person like we do with the global trainings you get to know that person face to face and see the whole body language the whole human interaction. It ´s totally different. So that changes your perception of people quite dramatically. Because the way you sound and the way your really are you see it's a really nice person.

Collaboration tools:

Q: To which extend can a virtual meeting leveraging collaboration tools replace face-to-face meetings?

IP1_1: I mean it is good in the sense of business but in terms of a more social casual level like we would have engaged lets say with a one to one meeting you immediately get another perspective. But that applies to all people in business this is social kind of engagement. Yes: business its fine to see people and you see how they behave. But to get an idea of who the person really is no I don ´t think a kind of 360 degree webcam can reveal that kind of information.

Q: Are collaboration tools likewise accepted by team members with different cultural background?

IP1_1: I wouldn ´t say that is an issue of cultural differences. I mean maybe in China but from my perspective no.

Q: What do you think about leveraging collaboration tools in doing team development sessions?

IP1_1: I think that ´s the best we have enable in terms of cost effectiveness, time management, etc. It's a great tool to have because we cannot always have one-to-ones. I would rather prefer like a virtual visual meeting than just speaking to somebody via email or over the phone. All our tools are quite effective in the way we communicate with each other. Email is the basics but other little tools we have I think its great – especially the 360 degree webcam

Team cohesion:

Q: What ´s your understanding of team cohesion?

IP1_1: Ok, I think I would describe it in two words of what to me cohesion means and that is working towards a common goal and the dynamics of the team – ok working towards the same goal in that sense to be overall doing that is the acceptance of the team members. Another important aspect of that is the collaboration with each other and realizing the strength and weaknesses within each team. But with somebody else has the weakness and you have the strength then to support so its I would say a family, almost like a family. You should provide for each other the help time and support and be understanding. And all those little components build to having a team coherent.

Q: Do you think that family feeling is stronger in the local team or in the global team?

IP1_1: I think the family feeling – I think we have the family feeling but lets say we have a better family feeling with the global team.

Q: Why do you think the local team in South Africa is not so much cohesive?

IP1_1: Maybe I can give an example …. Say you know your fiancée or your husband – you know everything basically of the personalities and the way they interact – lets say – in the family or the team. Versus in the global team it's the same as you meet somebody nice outside. You haven ´t seen the cracks or the way that that person really would engage with you if you would see him or her more often. So you obviously think that person is nice because that ´s also how we cultivate it within the corporate practice to be nice with each other. I think that ´s where the difference is: the realization of the personality traits of the people who may determine the cohesiveness of the team.

Q: Which challenges does your team face for which cohesive team development is an important thing to do

Comment: IP1_1 misunderstood this question and the additional explanation given was obviously not clear enough. So the answer was totally different than expected but interesting in another way. IP1_1 highlighted the importance to go ahead with team development and provided some examples of own interactions with individuals from the team.

IP1_1: Another very good example I can give you of say within the South African Team: in the past we did not do that many things as a team together as a team in terms of social things but now lately and that was part of one of our GES (note: Global Employee Satisfaction Survey) kind of goals to increase this socially engage. I mean not everyone does but many do and that brings cohesiveness with. I can see it with the people I play with in the volleyball team and we do that things and I engage with my colleagues which do that things with me in an easier way.

Interventions:

Q: Which interventions in cohesive team development have been applied in your team and which did you like most?

Note: As IP1_1 shortly before had talked about lots of local face-to-face team building the question was enhanced to capture that contradiction between how IP1_1 perceives face-to-face interventions with virtual interventions.

IP1_1: I think with the social events like we do the volleyball, action cricket or raising money for a charity on a Saturday – those are the more social fun events which is of course much more relaxed and again you get to know people outside of the business in a way – many people see how they are. Versus the virtual you don´t really know because you always remind business life.

Comment: Probing with a virtual fund raising event which had been performed in the team to compare with the charity on a Saturday IP1_1 had mentioned IP1_1 replied:

IP1_1: I don´t think they are comparable at all - I mean it is a way in some form you know but not at all because I´m a very people person and technology would never give that valuable information of a person that you would have in a personal engagement . Even locally in the team it's a technical process kind of driven event. Where the charity raise is a social natural human interaction.

Probing again with the past two virtual team events which had been performed in the past twelve month IP1_1 answered:

IP1_1: Both were nice but I think the first one was nice because it was the first to use that technology for the very first time. I think the first one I liked. Again to me it´s the excitement of seeing the people . This was not about the content of the meeting but rather of this very first experience of using 360 degree webcam - seeing people you haven´t seen before. From the fun staff we did I quite enjoyed the baby pictures that was an interesting one. Its again of seeing a person of how he or she looked like and now how he or she looks like – the visual side of it.

Q: Have you perceived a sustainable effect on your teams culture?

IP1_1: I think it will have a sustainable effect– definitely. I ld rather prefer having that in terms of team building instead of a normal IU1 meeting. The webcam would be nice to have for a normal IU1 team meeting.

2nd Interview – IP2_1:

This interview has been performed Nov 8th, 2011. The record is about 26.09 minutes.

Multiculturalism

Q: Do the team members rather feel a belonging to the local/natural or global sub team?

IP2_1: I would say both. In some cases probably when it comes together with some IU1 specific ideas or IU1 specific themes I think people are more inclined and people see more IU1 core research their family. But when it comes to local ideas, local issues or interacting with the colleagues sitting next to you I think both were the areas wherein people think they were part of the local team here.

Q: Is trust an issue in the local sub team?

Comment: IP2_1 asked back and spelled the word trust to confirm it was understood right. And then IP2_1 explicitly said "I think I did not get the question right." Obviously that question was unexpected for IP2_1 or IP2_1 might even have felt uncomfortable with the question. Going forward the question was repeated and explained more in detail, highlighting about a potential relation of level of cooperation with a certain level of trust. Pointing out about recent academic press where trust is being discussed as issue for virtual teams it was tried to create a more relaxed atmosphere about this maybe sensitive topic. Going forward IP2_1 replied:

IP2_1: Yes, trust I think is one thing which certainly makes an impact on the working relationship too, yes.

Q: Can you see a cultural dimension of trust or is trust rather influenced by other circumstances?

IP2_1: I would say different circumstances

Q: And which are those circumstances, could you please specify or give one or two examples?

IP2_1: One maybe the personal character of the person and even at times it might have something to do with the background of the people where they come from

Team cohesion

Q: What is your understanding of team cohesion?

IP2_1: Working as a team – I think it has more to do with the collaboration aspect which is a very intrinsic part of IU1 I would say. Because we don´t get to see all the researchers we work with on a daily basis I think so we are virtually connected. I think team work or collaboration or the idea that we share among ourselves – I think that idea is cohesion here.

Q: Do you think that makes the IU1 researcher team something special that they feel kind of belonging together?

IP2_1: Yes, I would say yes because obviously there is some moment of cohesion here even within the local IU1 team here. So whenever someone reaches out for a specific report or something people immediately reach out to their IU1 colleagues to see if they have anything to share with.

Q: So the IU1 research team in India is visible as kind of cluster or island belonging together?

IP2_1: Not every time. When there is a specific need yes. We operate together as a team.

Q: Do your team mates feel the same? Do they feel that sense of belonging as well?

IP2_1: I would say yes.

Collaboration tools

Q: What do you think in general about leveraging technical collaboration tools in doing team development sessions?

IP2_1: Obviously yes, its one of the tools or rather say media that connects people.

Q: To which extend can a virtual meeting using technical tools replace a face-to-face meeting?

IP2_1: It cannot completely replace a one-to-one or face-to-face meeting but given the kind of work we are in to I think this virtual connecting has become a part of our live. The virtual connection does play a vital role. Whether it can replace a one-to-one meeting not fully though.

Q: What to you miss in virtual meetings compared to a face-to-face meeting?

IP2_1: Definitely I would say somebody ´s facial expression. For instance we all reach out to people on OC or email or whatever or other means. We do get responses but ok maybe a very random example of – ok - me saying thank you to a colleague sitting somewhere else. Well I maybe not very happy but still say thank you to the colleague which is not expressed in the email. But if it's done one-to-one you obviously get to know or tend to understand a person ´s incline or interest level in those responses too. So that ´s an added advantage or probably an added weighting to the conversation.

Probing going back to the intercultural aspect IP2_1 responded:

IP2_1: Its usually tough to understand what the person sitting on the other side expresses his or her views. Yes, sometimes its challenging. More from the cultural perspective. That ´s a bit challenging sometimes because different cultures behave differently and people have expectations across the globe so sometimes you don ´t get to understand what the other person expects from you.

Q: So you think this is still an issue in IU1 as well?

IP2_1: Yeah, I mean its no more still an issue because people are getting used to this virtual setup – except a few things. I think people are comfortable doing it, yes, starting to work very comfortably but whether its going to replace the virtual sorry the one-to-one personal meeting 100% no.

Probing about a one-to-one meeting where the whole global team was able to meet in person, whether this might have changed the way of collaboration

IP2_1: At least to a little extend. I think even at the time of the meeting or at the time of discussion many of them being new joiners here I mean in India especially. The first time they met somebody talking live so they knew this is that xyz just seen those names in emails but it was one of the first time they got to see them in the video or talking live so obviously people are really curious who that person is. They start to talking about his voice – oh – his/her voice is good – that makes a change at least.

Probing about a potential face-to-face meeting in the future. Will that change something when we meet again?

IP2_1: Obviously yes. Probably I can give you an example because even the team – except of the current new joiners – had an opportunity to meet everybody for the South Africa meeting two years back in 2009 most of us did not get the chance to meet anybody in person. So the whole idea of somebody´s complete person got changed. Meeting somebody in person that definitely helps people.

Intervention

Q: Which interventions did you like most?

IP2_1: I think the picture contest that we had was really nice.. The connection with our industry, yes, that was a nice concept..

Q: Which kind of stuff would you wish for further lets say fun events having in mind the more visual things like gestures which are missed from face-to-face meetings?

IP2_1: Yes, more of this sort would be definitely be helpful. Maybe exploring other tools like video conferencing. There is one more tool coming up the EX90 – I think that would probably be a nice idea use those tools a little more frequently I think that would people help interact in a more lively way I mean – those interactions more frequently on audio and video support tools I think those things will it make more effective.

Q: Did the recent virtual team event had an effect on the teams culture of the IU1 sub- team in India? Was something different after that?

IP2_1: I think most people felt very happy. Because that was one of the first occasions we were all part of one big meeting and it also provided an opportunity to talk and make noise – yes it certainly did make an impact. People were very interested and in fact especially new joiners because at least we had an opportunity to talk to everybody or meet almost everybody in the team. But for them it sounded very interesting– they really spent a lot of time preparing especially the contest that was organized. They found it a good opportunity to make an impact on the rest of the team members.

3rd Interview – IP3_1

This interview has been performed Nov 9th, 2011. The record is about 48.12 minutes.

Multiculturalism

Q: How would you describe the effect the cultural sub teams have on the dynamic of the whole group

IP3_1: I Well, what s the effect. I think its hard to measure overall effects. […]
Comment: IP3_1 asked to specify the question so the hypothesis behind that question was disclosed to IP3_1: that sub teams might inhibit team cohesion. Then due to technical issues the interview has been cut and a couple of minutes passed since the interview could be taken up again. IP3_1 related his answer firstly to new joiners, taken up that key word of the interviewer which was meant exemplary. That focus on new joiners was initially not intended but accepted as some good answers could be expected.

IP3_1: I m not so sure your hypothesis is true – it depends on the level of new joiner – if it's a very junior person by default I guess your hypothesis is right. They have the need for lots of coaching and you know being new part of a team is very much touch and feel. But if it's a more mature person who s got some expertise already […] we quickly have to face the virtual touch of our global virtual teams of experts and interacting with them. I will give you a couple of examples: if I think for instance of (comment: name of a recent new joiner in South Africa) I think she needs to be quickly embedded in the local team and she has a close proximity to (comment: name of a local team manager).But if I think of (comment: name of a new team member in Argentina, where not so much a local team is established) I think he looks for lots of interactions in the global team. Thinking about (comment: name of a new joiner in China from a different industry team group) she stroke me with someone who is fine with absence of local handsome coaching and she is really more looking for interactions with (comment: name of a Sr. Manager in UK) and (name of a Manager in UK)

Q: Which role does trust play in our team?

IP3_1: It's a people business we are in by definition. You have to have trust in the person you work with. And then because it's virtual it's cross cultural it's

even more important to establish trust. Now the question is how you do that. Well I think it's a basic principle of … you know we all have the same core values so if someone comes to (comment: name of the company) they really should understand what core values mean. Then as part of setting objectives for new joiner the fundamental trust building mechanism is to say that the career counselor is there to help the person accomplish that goals and show sign of that over year so that trust is build over time.

Q: Probing about other team members, not necessarily about new joiners only

IP3_1: Once you have build the trust the challenge is to sustain it over time which you know can be a challenge because trust is difficult to build but is easy to destroy. And usually it's through behaviors of colleagues that we build or destroy trust. There are a couple of things: one is again our core values help us understand the boundaries for our behaviors. Secondly we should address quite quickly how trust was destroyed – its part of our core values to say that. And individual can stand up and provide feedback to the person who has caused the destruction of trust. It that does not work its part of our mechanisms to escalate that and refer you know to hierarchy to get the behaviors back to normal and if its not back to normal it can be escalated to HR.

Team cohesion

Q: What ´s your understanding of team cohesion?

IP3_1: It's an interesting concept. For me is being cohesive probably as a Greece or Latin root - I m not knowledgeable enough to refer to elements of making together – cooperation and making. So cohesion refers to collaboration, collaborative work – not just the status but the action embedded in that. The way that we build people acting together as team as to define roles […] who does what - roles need to be clearly determined. So cohesion means clear roles. The other thing is – again going back to our core values – make sure people understand the way it's appropriate to work together in professional context. Its also for me the value of synergies so – you know one plus one is more than two – means you can leverage other people ´s strengths to accomplish much more …. So the cohesion is adherent to core values its looking for synergies –

sometimes also pushing boundaries maybe good to unsettle the established processes, established ways of working together and innovate to find new ways to reenergize relationship between people. You know over time I think any individual who joins the company the first six months is a honeymoon and then stabilize and they (not understandable) their role more comfortable and working with others they turn to say well I know my role and I will do my job and that person has to have a really high cohesion in team and you need to push people do a bit more to than it's the established roles and definitions of their roles.

Q: Do you think you can quantify the level of cohesiveness in the global IU1 team? Could you scale it on a scale from one to 10, 10 being the top level of cohesiveness?

IP3_1: I think its pretty high if I should scale it in an objective way - maybe seven, eight something like that? Its definitely more than average (Note: having probed, average relating to the overall team.). I think in particular in our ability to bring our Indian and South African colleagues closer to the rest of the team than probably in other teams.

(Note: cut other questions on the dimension of team cohesion as this interview came up with some unexpected new answers and the questions did not fit anymore.)

Collaboration tools

Q: To which extend can a virtual meeting leveraging collaboration tools replace a face-to-face meeting

IP3_1: The easy answer is to some extend. I think the tools are underused and not yet completely available to all participants – by available I mean on their desk tops.

Q: probing on the current situation, reminding on the recent virtual team event which had been performed just few weeks before.

IP3_1: I think it does replace – first of all let's start with the reality which is never the ideal. Reality is that we have to work under our shareholders and stakeholders and are under scrutiny of SG&A costs (note: Sales, General and Administration). Traveling people to South Africa costs roughly a hundred

thousands of US$ so it's a huge investment …. that is an x% (note: number not disclosed due to confidentiality reasons) of our team budget. We have to work under the constraint that this is not possible under that costs. The reality is we can´t meet every year.

Q: probing with a scaling question, putting the virtual meeting on a scale between 1 – 10 having a face-to-face meeting as 10 and an optimum

IP3_1: Maybe five – there is some research I don t have on my fingertips but just quoting at large: when somebody speaks to an audience they obviously use the words, the tone and the body language. And that what people remember 7% is the words someone use and all the rest so 93% is the tone, or the voice and their body language.

Q: probing about rich media like Telepresence (note: a video conferencing system) where at least part of the body language can be transferred

IP3_1: …. Exactly, that does a bit more than as you pointed out the conference calls. … you probably reach 50% with the tone of voice and the speed of the speech and all those speech parameters and the remaining 50% is the body language. The question is: how much does technology convey that. I m not too sure. One person once said video conferencing was doomed because you cannot look like in real life into somebody ´s eye. With a video camera you don ´t look into somebody ´s eye. You look at a screen with a some degree angle away from the eyes so that does not do anything good actually. And the technology is now to have a camera just behind the screen. We don ´ t have that technology yet but when we have that technology will probably help actually. So right now I would say 50% or 5 in the scale of 1 – 10.

Q: Cultural background: does it change the acceptance of technical collaboration tools? Lots of tools are developed in the US – they might reflect the Anglo American culture. Cultural aspect in accepting collaboration tools – enhancing towards tools which are currently not used and might be an upcoming thing in that team

IP3_1: I have never heard such a theory before so I m a bit skeptical by nature. I believe that technology is cross cultural – that the need for innovation, the need to leapfrog mature markets like US and Europe is very strong in the emerging markets – they are actually very big users of technology and they

have adopted it at a pace which is much faster than in the mature markets. (Note: going further IP3_1 provided some background from a recent visit in China where tools equivalent to Twitter or Facebook have gained a great attention and usage)

Q: probing about potential comparisons between the local equivalents for Twitter and Facebook in China with their American blue prints

IP3_1: … they are copy/cuts typically with some innovation brought throughout to the Chinese for instance the Chinese I think on par with the Egyptians were the first two countries where you had the voice to text Twitter functionality . So I totally disagree that technology is biased towards US culture. I think it's no doubt it happens in the US, UK, Nordic – the innovation occurs in those countries faster than else because of the better education system and the value of entrepreneurship (…)

Going ahead, IP3_1 highlighted the highly popular biography of Steve Jobs in China and we had a short discussion about the meaning of heroes and people to look up in the Chinese culture. Even Steve Job´s inventions like the iPhone and iPads are not collaboration tools in the sense this master thesis' investigation deals with, it is just a great example of how non-indigenous technology and technology culture is being taken up by a foreign culture independently of its cultural background. Definitely, the US American culture which is Steve Job's native culture does not inhibit to be taken up in China. Given Steve Job's unique personality, adored like a hero even by Chinese people, might have been a supportive factor of making Apple ´s technology popular in China. Going forward IP3_1 pointed out that not only in China but in all emerging markets like Brazil and India there is a very high "appétit for technology" independently of age groups regardless of where they have been developed.

Interventions

Q: Which interventions did you like most?

Note: IP3_1 had started to answer from an abstract perspective as a team lead having dedicated team developing goals in mind. So the questions was specified towards "emotion" and his personal feeling about like or dislike.

IP3_1: Emotionally what I like the best is when people interact together the most. When it feels you can almost hear people anxious to participate around

the table and not feeling like waiting for their turn to provide their input. So that s how I feel personally some meeting is going well. Frankly talking about the content it could be completely rubbish or it could be really a loss of time chatting etc. but emotionally I get a kick is when I see the vibration of people being together and providing their ideas freely if you will. In that sense I think the virtual team events are pretty good. I was pretty happy to participate and hear the vibrations.

Q: … that is something we should search intentionally for upcoming team events, right?

IP3_1: Yeah, and the fact that there is no one person that sort of dominates the discussion – everybody is guessed to speak intentionally – feeling the need to – even if they maybe shy and you can find some shy team members. That s a true fact . So that would be a good objective. But again: that would be more the emotions. I ´m not sure if my emotions count – its maybe kind of a level 3 priority. Level 1 and level 2 are more about having challenging topics, having information about everybody´s current status of work-life-balance and showing their unknown qualities or strength of people that are amongst the team. So building the trust was the first question you had is priority number one.
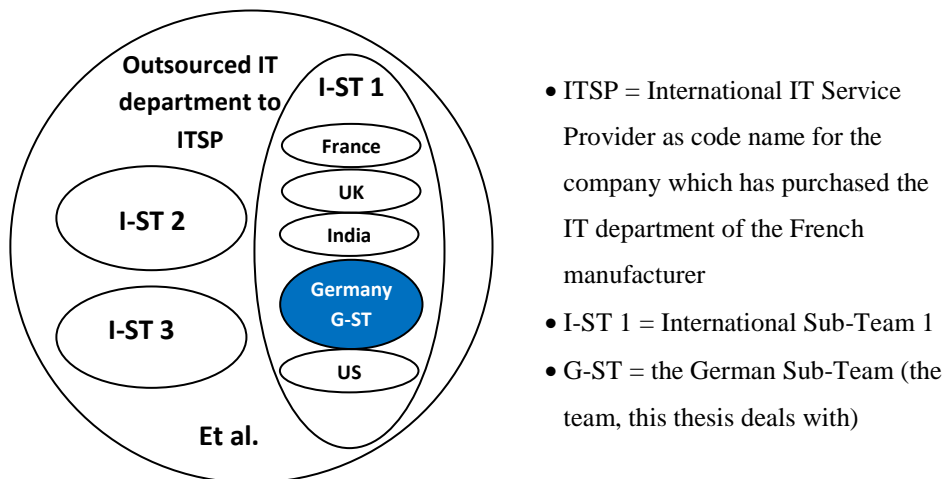
6.2.2 Case 2

The team of this case belongs to a bigger department of employees, in total approximately 1000. Originally, this department belonged to a big French manufacturer of high-tech hardware. It provided PC and software relating back-office support. In 2009, the parent company decided to outsource the whole IT department to an external big global IT Service Provider (Note: further quoted as ITSP), the deal duration is about 10 years. As part of the deal most of the employees have been transferred to ITSP and now are full employees of ITSP.

This case focuses on the German sub-team (Note: further quoted as G-ST) of a bigger team further called I-ST1. Contrasting to Case 1, the I-ST1 has experienced a groundbreaking change as it was outsourced and sold to ITSP in 2009. It can be assumed that the transfer to ITSP might have been an extremely stressful time for all employees given all potential uncertainties which are transfer-immanent (like relocations, job loss, new colleagues, new task, new company culture, etc.) I-ST1 and its sub-teams have obviously managed to survive that time of uncertainty. I-ST1 and its sub-teams is quite stable, there is almost no unmanaged attrition. The team members know each other very well and have established a well performing team environment. The team is designed for duration (at least 10 years according to the duration of the outsourcing deal). I-ST1 has to perform different mid-term IT-projects over time. Currently, their main project is to migrate their former parent company to Windows 7. The team lead of I-ST1 and a couple of team members are located in the UK, others are located in France, the US and India. Usually, ITSP moves newly acquired teams to own buildings in order to better integrate new employees. That has been done with I-ST1 (UK, France, US, India). However, for business reasons, G-ST had to stay in its old space and consequently has not been physically integrated to ITSP. G-ST still uses the facilities like the canteen of its former employer. Similar to the teams described in Case 1, G-ST is a strong geographical sub-team.

Figure 3: Case Two

- ITSP = International IT Service Provider as code name for the company which has purchased the IT department of the French manufacturer
- I-ST 1 = International Sub-Team 1
- G-ST = the German Sub-Team (the team, this thesis deals with)

 Within I-ST1 the German sub-team appears an island of its own, having a very strong level of cohesion in itself in two directions: 1st towards its former parent company, now client company in which´s environment the team still acts; 2nd towards its new parent company, ITSP to which they organizationally belong, however with a certain distance.

Two interviews have been conducted in terms of this case:

The first interviewee (note: further quoted as IP1_2) is an employee of ITSP. IP1_2 has been brought to that team for communication and management of change. IP1_2 has been working with G-ST for more than 6 months. IP1_2 has been chosen as interview partner for several reasons: The perspective IP1_2 provides is an external-in perspective in that sense that IP1_2 is neither a team member of I-ST1 nor of I-ST1´s geographical sub-team in Germany (G-ST). Having worked together as change manager of the global sub-team (I-ST1) and having had some special interactions with the German sub-team (G-ST) IP1_2 has been able to gain deep insights about G-ST putting them in the broader context of ITSP. Being an educated Coach and having some background in organizational development, IP1_2 is generally able to reflect differently about a team and its members than a team member or a team lead adding a humanistic perspective to that purely economic driven environment.

The second interviewee (Note: further quoted as IP2_2) is an employee belonging to the German sub-team (G-ST). IP2_2 has been taken over in 2009. He is one of the mature team members and has the full team history.

1st Interview – IP1_2

This interview has been performed Dec 1st, 2011. The record is about 43.43 minutes.

Note**:** Prior to this interview I met IP1_2 to discuss about the potential case. The meeting went very positive as the case IP1_2 matched in terms of "theoretical sampling" as described above. However, as I had missed some details, I started the interview with general questions about the team to be able to describe the team. A rough questionnaire had been drafted for the call taking up the 4 dimensions being investigated. However, given the flow of the interview, it has been adjusted flexibly rather taking up the ad hoc information being provided along the interview flow. Questions are paraphrased and shortened compared to the live discussion.

Team cohesion:

Q: As the German sub-team has been described I understand they are isolated from their former employer and not integrated with their new employer which might make them even stronger as a sub-team

IP1_2: Yes, that´s like a gallic village you know from Asterix and Obelix, I have the same impression. But they are not like …. they don´t have a better opinion about either employers for example, they are really open. I was a new person and I also had that resentments that I thought so isolated as they are its difficult for me to get integrated but that´s for example not the case. They are really enthusiastic and also looking forward to learn from what I do and about me and my experience and so on

Q: How would you define team cohesion from your understanding especially thinking about that team?

IP1_2: They have a lot of experience of working together. They are very effective and efficient of working together; they know each other well, they trust each other I would say. Well there is a lot of implicit knowledge there which they are not aware of. Every day they are using insider wording,

vocabulary or they have a number of implicit things so somebody new coming to the team would not grasp.

Q: The language they have developed: do you think that comes from the former employer?

IP1_2: I guess so but also at the former employer they were like in a special function so I guess it's a mixture of former employer, new employer and own things.

Q: And that language is that only with the German team or even with the English, French or Indian members of the broader team?

IP1_2: I would say its more intense in the German team as they see each other every day so that ´s more intense. But for example if you talk about jokes or something there is no frontier between UK for example. They are also joking around with each other more than they would do with someone from the external staff.

Q: Which efforts have been made to integrate them more with the new employer?

IP1_2: I have not been in that team for so long but I have asked the same question and of course we have an account for the customer where this team was integrated. And the regular integration process consists basically of people transfer so its an HR activity. Then you have welcome communication things so they are introduced into the new processes and tools; they are introduced to their new managers, introduced to ITSP ´s (Note: company name made anonymous) strategy and things like that. But that ´s mostly in a virtual way so they have virtual classroom sessions or calls something like that. I think there was never something like a face-to-face teaming event – not team starter something so that ´s why I think they have never changed the mindset , that ´s why they are so close to each other. I think the day to day work didn ´t change so much besides the tools so that ´s a thing you can see on your desktop every day. So not so much efforts, basically virtual efforts and standard procedures. But you know there is always a management of change consultant trying to help smoothing the change. And in this case I know the guy but its always a question of budget so you always want to do more than you can and he of

course did some cultural messaging but it has not been individualized for this team.

Q: Do you have a view on the other people outside Germany . Have they been physically integrated with local ITSP offices?

IP1_2: Yes, they are working in the ITSP offices. The efforts to integrate them were the same but they were changing offices so they got into more contact with other ITSP colleagues. That ´s why they have a wider perspective on that. For example the project manager is in UK and he is really a bit more open minded and a really enthusiastic person. I think he is identified more with ITSP than the others.

Q: As he is the boss of the guys in Germany: is he doing any special efforts to integrate the German sub-team?

IP1_2: Yes, doing the project every six or eight weeks they have one week where they do a five day workshop. But they even do some evening activities like visiting a local fair or going to a restaurant. He tries to foster informal communication. Because of cost reasons they mostly meet in Germany because there is the majority of the team.

Q: Overall what you describe the team look in good shape to me. Are there challenges ahead where a more intensive kind of cohesive team development could help?

IP1_2: I think there could be a lot more done. The first thing would be to really help integrate the people into ITSP from a psychological perspective. That ´s a thing that nobody did. It ´s always indirectly present but no one can speak about it. And the implicit knowledge that is there I think they have the feeling they think that is the way the world works. They are not aware that everything is changing around them. In case a change hits the team then they will have problem s so they are not so flexible as they could be when thinking about ITSP a bit more. From a team cohesion perspective the team is a really good team as is … there is another thing. Sometimes they have intercultural conflicts – well not conflicts but misunderstandings that they are not aware of. For example the French guys are a bit different in the way they communicate or to define things. I think they often think they are talking about the same but in fact they did not. That ´s also a thing where you could optimize things.

Q: Earlier in that interview you mentioned that the trust is high in that team. But now that we have talked about France etc. do you think the trust of the German team is the same towards their French colleagues and equally to India?

IP1_2: To the French yes even sometimes they don't understand each other but I have the feeling at least they try to figure out how they can do it better next time. So I think they basically understood there is a difference they need to work with and they are not taking it personal. So in case someone does not deliver the result which is expected then its not the persons fault but the situation ´s fault. That ´s a good point because normally when people don ´t know each other they think over it and never talk again. But with the wider team for example with India that ´s always more difficult and I think there were no efforts made to do this better.

Collaboration tools:

Q: Which kind of tools are in common use in that team?

IP1_2: Well, you will be disappointed. We have the Microsoft Office Communicator for chats and we are also using that for sharing the desktop or for having conferences. We have the virtual classroom where we also can do big conference calls with a lot of people. What we don ´t have is live chat with really pictures. You never see the face of each other whilst talking.

Note: following that answer we discussed about the face-to-face meetings of the team which take place every six or eight weeks. This has to be considered really much for a virtual team. Other virtual teams are not able to meet in person once a year for cost reasons. So there is not really a demand to replace missing face-to-face meetings or the lack of social cues with a visual virtual channel.

Overall, intentionally more questions about the other aspects virtuality, interventions and multiculturalism have not been asked because the interview and the case turned out the aspect of team cohesion to be the most interesting. And the other aspects have been sufficiently answered in that context.

2nd Interview – IP2_2:

Note: This was not really an interview. IP2_2 did not want to be interviewed and felt apparently uncomfortable about the fact that the conversation would be recorded by voice record. Prior to this there was an intensive exchange with IP2_2 leveraging IP1_2 as mediator about the purpose of the interview and the scope. After specifying the sole scientific background of the thesis and guaranteeing both, confidentiality and anonymity, IP2_2 finally agreed to answer the questions in written form. As IP1_2 gave the hint that IP2_2 might not be so fluent in English language the questionnaire has been developed in German language. For the purpose of this thesis it has been translated to English.

General demographic questions:

Q: How big is I_ST1?

IP2_2: Approximately 28 members

Q: Which function or task has the team you belong to? Please answer for the Germany sub-team you belong to

IP2_2: The German team has different functions and task, i.e. validation of applications, staging, User Date Migration; I myself take care about rollout, planning and communication

Q: How long does the German team exist?

IP2_2: Since start of the project (about 1 year)

Virtuality:

Q: Under which aspects is virtual collaboration with team members of other locations a challenge for you?

IP2_2: delays based on different time zones; fewer face-to-face meeting, enhanced efforts to coordinate and synchronize, different technical and organizational areas of experience

Q: How does virtual collaboration from your perspective works good?

IP2_2: it depends on good coordination from leadership, the ability to integrate from the team members, well working and supporting technology

Multiculturalism:

Q: Which role do cultural differences play when collaborating with different team units?

IP2_2: A subordinated role in daily cooperation

Q: Do you perceive a one culture in the bigger team as dominant?

IP2_2: American/English because of the official language and the origin oft he parent company

Q: Where do you especially perceive an effect of that dominance?

IP2_2**:** in communications, partly in the methods

Q: How conscious is the German sub-team or the other geographic sub-teams about cultural differences or the way how to deal with cultural differences?

IP2_2: For sure there is awareness however I don ´t have valid evidence about the extend.

Q: Does "trust" in your experience have a cultural component or specification?

IP2_2: Basically yes but in a relatively homogeneous team – with respect to education and intellectual traits – the cultural aspect is secondary after the individual traits

Team cohesion:

Q: The German sub-team has been described as a very cohesive team. Which factor did support the development of team cohesion especially, before the take-over and after the take over?

IP2_2: for both options: individual traits and alignment to a common goal

Q: Are there differences in the feel of belonging to other geographic team units?

IP2_2: Without a doubt it's stronger within the same geographic team units.

Q: If there would be a bigger feeling of belonging together with the other team units would it be easier to reach project goals?

IP2_2: This might be the case in other projects but in this project along with its specific character there are different and stronger disturbing influences

Q: Which actions towards team cohesion do you perceive?

IP2_2: regular face-to-face meetings; dinner outside of regular working time; intensification of communication beyond work topics

Q: Do you wish to get more dedicated measures to support team cohesion? If so which?

IP2_2: There are already intercultural trainings, which could be intensified respectively specified

Collaboration tools:

Q: Which collaboration tools are available and used in your project?

IP2_2: telephone, audio-conference, eMail, MOC (note: Microsoft Office Communication, a chatting tool), Virtual Room

Q: Which are most accepted amongst the team members?

IP2_2: Basically all are accepted and are being leverages according to actual demand

Q: Under which aspects would you consider such tools limited?

IP2_2: if a direct contact is important; if contact is necessary for an extended period; when complex and lengthy procedures are to be demonstrated

Q: Such a tool will be on your team also used for team development?

IP2_2: Yes, of course

7. Discussing the interviews, matching them with findings from the theoretical part

7.1 Introduction

Some introductory words to the interview being conducted in terms of case 1: it is worth mentioning that the three interviews, being based on the same four dimensions even with modified questions are very different in respect to their information content, overall length and partly the intensity they have been answered. All three interviews have been conducted in a comparable virtual setting, being prepared with a comparable numbers of questions. However, the flow of each interview was very different. This might have different reasons such as the individual ´s traits, their working environment, their cultural background, their level of being common with a topic or research dimension, their level of being self-conscious and mature to answer a question, their role in the team, maybe even gender–related. As specified at the beginning, this thesis does not aim to interpret the traits or the individual circumstances of the interview partners in context with their answers. Admittedly, it would be very interesting to consider those aspects but this would go beyond scope of this research study. This research rather intents to leverage the perspectives of the interview partners on the four selected research dimensions to enhance the author ´s and reader ´s view on them.

Two observations should be pointed out: 1) IP3_1 as a team lead appears clearly a leader with a strategic and tentatively outside-in-view compared to IP1_1 and IP2_1 who have answered as team members of each sub-teams. 2) It has been outlined before that unfortunately this thesis cannot deepen or discuss the gender aspect. The interview partners of Case 1 are two men and one woman so there is no real possibility to raise a quantitative match concerning gender. However, the gender-aspect might appear from the answers on a research dimension like cohesion: interestingly both male interview partners define cohesion rather objectively with respect to collaboration and roles in the team. The woman adds social and emotional aspects bringing up the keyword "family". Going forward in the discussion, such a correlation should at least be mentioned, even though not deeply discussed.

From the second case with two interviews there is one from a woman as well. The answers of the woman overall appear with a high level of empathy in the way she describes her observations for the second team case. The man provides very short and objective answers. And as his answers have been provided in written form it was not possible to insist or probe about some impressions.

Going forward, observations from both cases and all interviews shall be aligned and discussed to the original four research dimension and their basic assumptions because that is where the hermeneutical loop of this piece of research starts. The basic assumptions represent the initial understanding at the beginning of this study. The discussion should show to what extend the initial understanding is confirmed, enhanced, adjusted or even replaced. If the single interviewees are made visible in the discussion this should rather serve to structure the discussion and to indicate the development of the hermeneutical loop.

Summarizing the findings of each research assumption, these are being matched with the theoretical part of this thesis.

7.2 Discussion of the first research dimension: Multiculturalism

Multiculturalism is investigated under two assumptions:

1. Cultural sub-team inhibit team cohesion of the bigger team through their strong cultural stamp building "island"
2. Trust is a cultural dimension that influences the level of collaboration and engagement between team members of different cultures

Discussing the first assumption: Cultural sub-teams inhibit team cohesion of the bigger team through their strong cultural stamp building "island":

Being asked about the general effect of the sub-teams on the dynamics of the whole team, IP1_1 answered in a totally different way than expected. The general topic of communication style has been focused on. (Note: the answer led to a rewording of the question for the next interview as it was obviously not specific enough towards the basic assumption). For this interview the answer has been accepted trying not to manipulate answers towards starting

assumptions and trying to stay open for the unexpected which might add new aspects to the research. And to a certain extent an answer has been given: IP1_1 reported about the communicative influence of a – in their communication style – homogeneous appearing sub-team. But there has not been made any link between a sub-team and attributes like isolation as suggested from the first assumption. And there is no direct evidence that a sub-team might inhibit team cohesion.

However IP1_1 ´s answer raises another potential research topic around the correlation between communication style of a team and team cohesiveness: Could the communication style in a team be an indication for the level of cohesiveness in a team? Would a "respectful communication style" like the Indian ´s team members practice, indicate a higher level of cohesion or rather a distance towards the other team members? Working on the communication style of a team: could that result in higher team cohesion or does rather a higher team cohesion result in a different communication style amongst the team members?

Another interview from the second case points towards the same context: providing evidence on the second research dimension of Team Cohesion IP1_2 talks about the communication style of G-ST as "insider wording". Having studied the historical origin of this obviously homogeneous communication style of G-ST, this style seems to be an essential part of that sub-team from times the team had worked for its prior employer. Further attributes aligned to that communication style are: "implicit knowledge", "somebody new coming to the team would not grasp", "joking around".

At least it is worth to note that the communication style in a team indicates the level of team cohesion. Contrasting the terms being attributed to the communication style of the teams of Case 1 versus Case 2 (respectful vs. insider wording, implicit, joking) clearly the team of Case 2 appears more cohesive than the team of Case 1. All in all, this thesis postulates the implementation of dedicated cohesive team development. Analyzing the communication style of a team might be a good way to diagnose a current level of team cohesion and to select specific interventions to improve team cohesion.

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Analyzing how the communication style has changed after such a specific team development might be a good way to evaluate and measure success.

Generally, the relation between communication style and cohesiveness is a very interesting research topic of its own. If somebody else will take up this research question it is recommended to consider the "gender-aspect" as this topic has been brought up by the two female interview partners.

There is no evidence yet with respect to the starting questions about strong sub-teams inhibiting team cohesion of the broader team. It has been mentioned that given the misunderstanding with IP1_1 from the South African sub-team the question had been modified for the interview with IP2_1 from the second strong sub-team in India. IP2_1 had been asked about the sense of belonging of team members to the local sub-team versus the global team (IU1). IP2_1 points out that with respect to professional topics the sense of belonging is strong in the global team but in terms of personal or private aspects the sense of belonging is stronger in the local team. That adds another aspect on team cohesion: team cohesion with respect to professional or private aspects. Another list of research questions could be added here like: Is there a need for both? Which balance between professional and private aspects should be supported? etc. The last question has been added at the end of this thesis to the list of "unsolved questions" and might stimulate further research.

As the South African sub-team, the Indian sub-team had been considered a very cohesive team and so to have potentially an inhibiting effect on the team cohesiveness of its local team members concerning the global team. However, given that answer the starting assumption – again – can neither be proved nor denied. Reflecting upon the two sub-teams (the South African and the Indian) of Case 1 and thinking about all interviews across all dimensions both do not appear as cohesive any more as they were supposed to be when having selected them. The Indian sub-team might just not have been able to develop a strong local cohesiveness as it is a relatively young sub-team (Note: the Indian industry sub-team got an own team lead few months before and consequently was more shaped towards the bigger India team; parallel to that each of the team members has been already integrated to the global team IU1 to a certain

extend). The South African sub-team is a culturally very diverse team in itself. Team members from different African nations carry a very special political and historical heritage which clearly causes some distance in many dyadic relationships. IP1_1 later mentions explicitly competition and implicitly resentment as other inhibiting factors for trust and team cohesion.

But it would be too early to erase that first assumption. There is one reply from Case 1 left:

IP3_1 has been asked the question in its original wording (Q: how would you describe the effect the cultural sub teams have on the dynamic of the whole group?) And again the interview partner had problems to capture it but this time maybe because he might have thought about a quantitative (quote: "measurable") answer which is hard to give against a qualitative background he obviously was not conscious about. As IP3_1 asked to specify the hypothesis behind that question it was disclosed and combined with a practical example mentioning "new joiners" in the team. IP3_1 related his answer exclusively to new joiners, taking up that key word of the interviewer which was meant exemplary. That focus on new joiners was initially not intended but accepted as some good answers could be expected. IP3_1 commented on new joiners and how they are observed when being integrated into the global team. He disclosed some examples: one new joiner who became a member of a local sub team in South Africa and who definitely missed a stronger dynamic to get assimilated more quickly into the local structures as a new joiner. That team member has local team mates of her own expertise. The second two examples of new joiners belong to less stronger local sub-teams than the South African. Not very strong in that sense that there are not so many team members, that the team members might be spread across different cities not having one main locals presence (China); the other example relates to a team member from a newly founded team in Argentina in which team development has to be considered still in the storming phase. Both IP3_1 indicated that from the beginning both were much more virtually oriented towards their counter parts or more senior team members.

Unfortunately it was not probed on those special circumstances. IP3_1 related an individual´s tendency of local versus virtual alignment to the level of

one´s education. And indeed, the examples IP3_1 gave might proof that somehow. However, IP3_1 did not consider the local team environment those three new joiners had to be integrated. Adding that perspective, there is indeed an indication – as described - that the strong local sub team in South Africa assimilated the new joiner even we don't have evidence an experienced new hire would have been assimilated the same way. It might have rather been the local conditions (no team member having the same industry alignment, no strong local presence of the team at one place) which made the other two new joiners (China, Argentina) – even more experienced - to align more virtually with their global team mates.

Case 2 and the interview with IP1_2 might give some more evidence towards the initial assumption. IP1_2 finds an interesting and somehow sociological loaded metaphor describing the team (G-ST) this thesis deals with: "like a gallisches Dorf you know from Asterix and Obelix". As we all know, that famous comic and its gallic village is an interesting equivalent for a team: against its enemies, the Romans, the inhabitants or members of that little village appear like a closed frontier, invincible, a perfect team gaining the highest successful synergy from its multiple talents as represented by single strong team members. They stand maybe for the highest level of team cohesion which does not mean that they do not have conflicts within the village or team. Indeed, they have multiple conflicts but the common goal, their fight against the Romans, keeps them strongly together and makes them successful. G-ST, as the German based sub-team of a bigger international team, has a comparable history of a fight which has welded team members together. Due to their special task of serving a certain client – their former employer – they need to stay close to their former employer however do not belong to that company any more. And so, different to the other sub-teams G-ST has not been integrated to the office space of the new employer. Different to the sub-teams being described in Case 1, this sub-team regularly meets face-to-face (every 6 or 8 weeks) with its team mates from the other sub-teams. It is still described as isolated, strong, with an own language. The Cooperation seems to work generally very well and the common goal of the team is achieved. IP1_2 reports about minor intercultural conflicts and about upcoming changes due to

the fast moving business environment at the new parent company. Even having implicit knowledge, G-ST does not consciously capture it. It could be interpreted that the whole team is somehow undergoing a risky situation because of G-ST's isolation.

In summary:

There is some evidence proving the assumption: cultural sub-teams do have an effect on the dynamics of a bigger team they belong to. (Note: We do not discuss whether that is good or bad as it might be different from case to case. It's just important to note there is such an effect) I.e.

- they have the potential to assimilate their team members and especially new hires and keep them away from the bigger team
- they have the potential to influence the communication style of the whole group

However, these cases do not provide enough evidence to qualify or quantify the effect of strong sub-teams on a bigger team. It's just important to note there is a potential effect and to consider that when practicing cohesive team development with teams with a structure of sub-teams.

Overall, these are interesting additions to the theoretical part of this thesis. Köppel (2008) discusses the potential negative effects of strong cohesive sub-teams on a bigger team and the potential negative effect of team cohesion on the effectiveness of the group in general. This has been discussed more detailed in chapter 5.2.7 of this thesis. Looking at it from that angle, this research assumption has to be considered valid.

Discussing the second assumption: Trust is a cultural dimension which influences the level of collaboration and engagement between team members of different cultures:

IP1_1 confirms that trust is an issue and highlights it under four different aspects: **Firstly** regarding the competitiveness amongst team members towards annual ratings and even promotions. IP1_1 initially raised this aspect with respect to the global team but further specified the individual situation IP1_1 was in and as such assignable to the local sub-team in South Africa: people

being passionate about their work might lose their peer ´s trust as those might guess success is based not on one ´s hard work but just on being favored by certain people. **Secondly**, IP1_1 highlighted the annual results of the local (=South Africa) Global Employee Satisfaction survey where trust has always been a major issue. So there are two indications that trust or let ´s rather say mistrust based on competitiveness is obviously an issue in the local South African sub-team.

That stimulates a few more generalizing assumptions:

- Balancing a culture of competition amongst individuals towards a culture of cooperation and the common goal of the team, reducing the feeling of competitive pressure on the individual team members, might increase the level of trust amongst team members.

- Consciously applied competition - or rather competitive interventions - might be a lever to influence the level of team cohesion

- Team members of a heterogeneous (with respect to culture) sub-team might more easily be integrated into a global team than team members from a homogeneous team

- Trust-building should be one goal of cohesive team development, however, cohesive team development is not sufficient as stand-alone activity to raise the level of trust

Thirdly, IP1_1 mentioned trust with respect to a direct client relationship and the collaborative effort to serve a client. Especially IP1_1 referred to a virtual work environment being centrally managed by a project manager and the fact a project manager does not share the success or reward with the members of the project members which have contributed a major effort. The reason why a project manager might do that is to protect the direct client relationship. IP1_1 put a relatively low emphasis on that as it is something occurring rather incidentally than regular and rather relating to few project managers. (IP1_1: I have personally experienced examples, but not often. Very little but yes I have recently had a case but as I said it ´s not a major issue for me in that regard that it happens so often.) And as this relates to the first aspect regarding competitiveness it should not be discussed further.

There is a **fourth hint** IP1_1 provided when being asked about the challenges of a virtual multicultural environment which can be related to the topic of trust.

IP1_1 highlighted that missing a visual idea of a person, missing the body language especially when being exclusively restricted on the voice channel can lead to misinterpretation of a person. The attributes IP1_1 used describing those circumstances - totally different, dramatically changes - are very much of an emphasizing nature undermining the big difference between face-to-face and virtual meeting of persons.

To generalize about that: there is evidence that the virtual environment and communication based on limiting collaboration tools has to be considered one potential cause for mistrust.

Having asked IP2_1 about the cultural dimension of trust and having examined this aspect, IP2_1 gave a relatively light indication that this might be true, highlighting the differences between people from Northern and Southern India. This might underpin that assumption. IP2_1 ´s original answers however do not show much of an awareness regarding a cultural dimension of trust, only when being audited about it.

Looking at the second case the interview with IP1_2 only confirms that trust is in issue there as well. IP2_2 explicitly answered on the question "Does trust in your experience has a cultural component or specification": Basically yes but in a relatively homogeneous team – with respect to education and intellectual traits – the cultural aspect is secondary after the individual traits.

In summary:

Both cases prove that trust is an issue in teams but this has been intensively investigated by academic research of the past 10 years, so that ´s nothing surprising (see chapters 5.1 and 5.2.3 where the issue of trust has been discussed more detailed) . The cultural aspect of trust is present, however only latent with secondary importance after individual traits which obviously count more.

7.3 Discussion of the second research dimension: Team Cohesion

<u>Discussing the first assumption</u>: There is a common understanding about what team cohesion means:

Regarding this dimension, the interviewees brought up many keyword and phrases; it is obvious to align them to the GRPI model. As this is a qualitative research it does not matter how often a keyword has been quoted or how many terms have been aligned to one of the layers of the GRPI model. All layers of the GRPI model have been touched and each interview partner in his/her answers touched two or more layers of the model.

GOALS	- Working towards a common goal - Alignment to a common goal - Realizing strength and weakness in the team
ROLES	- A bit more than established roles and definition of roles - Determine roles, clear roles
PROCESSES	- Collaboration with each other - Working as a team - Established ways of working together - Unsettle established processes - Work together in professional context - Learn from others - The value of synergies – one plus one is more than two
INTERPERSONAL RELATIONSHIP	- Sense of belonging together - Feeling like a family - Acceptance of the team members - Support others so it's a family - Support someone who is weak with own strength - Reenergize relationship between people - Reach out to colleagues - Share with colleagues - Like a "gallic village" - Have no resentments

In summary:

By starting this research, my basic understanding was that team cohesion would only touch the layer of interpersonal relationship and that cohesive team development would only work on interpersonal relationships. This view has been clearly enhanced by the realization that team cohesion relates to all layers. And more important: not only team development setting up on the layer of interpersonal relationship should improve team cohesion. Even team

development setting up on the other layers might improve team cohesion. Indeed, the common understanding about the term cohesion shifts and is not equally perceived among the team members.

To speak with Köppel ´s (2008) words: some people highlight the tasks relating components of cohesion, others more the person relating components. Looking back to the chapters 5.1, 5.2.4 and 5.2.5 it can be stated there is at least a common understanding about what cohesion means in the academic world. Two different books from different geographic and academic background – Köppel ´s (2008) and Duarte and Snyder ´s (2006) consider the two aspects of cohesion in their discussions.

Discussing the second assumption: Support of team cohesion in virtual, multicultural teams is a special challenge companies need to face but haven ´t done sufficiently so far:

The team of Case 1 had the chance to meet in person in 2009. Most team members have met each other face-to-face. Since 2009 that team got four new team members which did not have the chance to meet the others. In November 2010 and in October 2011, a dedicated cohesive team development had been performed but only virtually, leveraging collaboration tools transmitting audio and video relating impressions. In the first interview IP1_1 highlighted the importance to go ahead with team development and provided some examples of own interactions with individuals from the team. As IP1_1 had both, more interactions and a closer relationship with team members, the cooperation worked better. IP1_1 gave an example of a key team member from the global team with whom he had only little interaction, causing a feeling of uncertainness when interacting with him. As IP1_1 focused on dyadic relationships, one idea could be that cohesive team development could be specifically set up to support the development of dyadic relations between team members which have some touch points but do not work too often together. Future cooperation might be easier and more successful having had a cohesive kind of interaction before. IP1_1 added some more evidence choosing an example from local, face-to-face team development pointing out about improvement of certain relationships just having "social things" together.

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This discloses a weakness in the team of Case 1: obviously collaboration amongst some team members could be improved and so the collaboration would improve. Cohesive team development could be a good lever to reach that goal. Later being asked about whether IP1_1 had perceived a sustainable effect from the recent virtual team events on the team IP1_1 replied: "I think it will have a sustainable effect– definitely. I'd rather prefer having that in terms of team building instead of a normal IU1 meeting".

IP3_1 made another interesting contribution bringing up an own question at the end of the interview: "How do you manage all the good practice despite the stress relating to workload?" Going further, IP3_1 outlined the biggest challenge the team currently faces: high workload, declining work-life-balance of individuals combined with the challenge of a growing team. The challenge IP3_1 pointed out was about managing cohesive teams in bad times – bad times in the sense of having the team under high workload. IP3_1 interprets the low or even non existing unmanaged attrition that people like their work and the working environment. However, IP3_1 indicates a quality loss in the collaborative culture of the team with respect to soft skills under stress. The discussion with IP3_1 went further talking about the formula "Group effectiveness = potential minus conflicts plus synergies" and the assumption that an increasing team cohesion might lead to a reduction of conflicts, helping to unfold more synergies and as such increase a group´s overall effectiveness. Last but not least, team cohesion conveys people a family-feeling and should therefore be an important element to keep unmanaged attrition down. That might answer a part of this challenge. However, it should not replace the need of hiring new people to the team. Overall, IP3_1´s contribution might indicate the need for cohesive team development despite challenging times or because of the challenging time. Challenging times might lead to a quality loss in collaborative culture or, in other words, makes the level of cohesiveness decline. In "challenging times", cohesive team development might be an important element to balance the level of cohesion right. And if it is not possible to keep up cohesive team development in challenging times, it should be done right afterwards to get the prior level back and repair a collaborative culture.

The Interview partners of Case 2 report about regular face-to-face team meetings every six or eight weeks which support team cohesiveness, including dinners outside of the regular working time, etc. There is no evidence for Case 2 that this assumption is relevant.

In summary:

There is no evidence that cohesive team development in virtual, multicultural teams itself is a challenge. Yet, there is evidence that cohesive team development is not sufficiently practiced. This paragraph suggests applying cohesive team development in challenging times for teams i.e. when there is a high workload and a low work-life balance amongst team members. Alternatively, it might be more realistic to apply cohesive team development right after those challenging times to remind people of their prior level of cohesion or collaboration; to get them back to the prior level or to even improve it.

The discussion in chapters 5.2.4 and especially 5.2.5 provides the theoretical backup for the validity of this assumption.

7.4 Discussion of the third research dimension: Collaboration tools

Discussing the first assumption: Collaboration tools become more mature and capable to replace face-to-face meetings:

There are both positive and negative attributions from almost all interview partners. The table below gives an overview about their partly paraphrased attributions, intentionally not aligned to the single interview partners as their individual contexts is not relevant to be analyzed in this thesis:

attributions supporting the assumption	attributions questioning the assumption
• Good in the sense of business	• Not good in a more social casual level
• Its fine to see people and see how they behave	• Don´t get an idea of who the person really is
• One of the tools or rather media that connects people	• Technical tools cannot reveal who a person really is
• Has become a part of our live	• Cannot completely replace a one-to-one meeting
• Virtual connection does play a vital role	
• To a certain extend if available	• Cannot fully replace a one-to-one

for all team members and being leveraged comparably • The best we have in terms of cost effectiveness, time management, etc. • I would prefer a virtual visual meeting than just speaking to somebody via email or over the phone	meeting • Miss the facial expression, get to know a person ´s incline or interest level on a response • Scaling question: 5 (compared to a 10 which would be a face-to-face meeting) • Another scaling question: 7 when having had the chance to meet face-to-face before • Even Telepresence – a very rich media – might only reach the level of 50% because you cannot look directly in someone ´s eyes • Limited if a direct contact is important; • Limited if contact is necessary for an extended period; • Limited when complex and lengthy procedures are to be demonstrated

In summary:

Generally, it could be stated that virtual teams should at least have the chance to meet in person once, preferable in an early team phase. Follow-up meetings might be performed by leveraging virtual tools. If possible, tools enabled for video should be leveraged. Virtual technologies are quite limited in general – approx. about 50% - in their capability to replace a face-to-face meeting compared to approx. 70% having had a face-to-face meeting before. Two attributes from the table should be chosen to highlight the biggest gaps of collaboration tools: they cannot reveal who a person is; they miss the facial expression; you cannot get to know a person ´s incline or interest level on a response.

The literature that has been evaluated suggests a more dedicated and conscious application of collaboration tools. Particularly, Duarte and Snyder (2006) outline what they call "crossing technical boundaries". Collaboration tools indeed are more mature especially as they are capable of carrying synchronously visual impressions of individuals. However, none of the available collaboration tools can yet replace a face-to-face meeting. For a more detailed discussion of the backgrounds in literature see chapters 5.1, 5.2.6, and 5.2.7

Discussing the second assumption: Collaboration tools carry a certain cultural stamp from the culture (US) they have been developed in. Accordingly, their acceptance is different from culture to culture:

Having been asked whether collaboration tools are likewise accepted by team members with different cultural background, IP1_1 answered it would not be an issue of cultural differences. However, IP1_1 restricted with respect to the Chinese culture. IP3_1 worded skepticism and finally disagreed about this assumption and reported about a recent travel to China where social media tools like Facebook and Twitter with their local equivalents were very well accepted. IP3_1 also highlighted the highly popular biography of Steve Jobs in China and we had a short discussion about the meaning of heroes in the Chinese culture. Even though Steve Job's innovations like the iPhone and iPads are not collaboration tools in the sense this master thesis investigates it's just a great example how non-indigenous technology and technology culture is being taken up by a foreign culture independently of its cultural background. The US American culture which is Steve Job's native culture is apparently not presenting any obstacle to be taken up in China. Given Steve Jobs unique personality, comparable to a hero even Chinese people like to look up to, might have been a supportive factor of making Apple ´s technology so popular in China. Going forward, IP3_1 pointed out that not only in China but in all emerging markets such as Brazil and India there is a very high "appetite for technology" independently of the age of the groups and regardless of where they have been developed.

In summary:

The one hint this assumption could be true has to be qualified against the recent and intensive perception of IP3_1 ´s recent visit in China and his context knowledge about different emerging markets. Based on this, the assumption has to be assessed less relevant and even almost disproved.

However, the literature as being discussed in chapter 5.2.7 gives clear evidence that this assumption is valid just to remind Köppel ´s (2008) discussion. Duarte and Snyder add another aspect which has been discussed in 5.2.7, about the connection between technology-acceptance and culture.

7.5 Discussion of the fourth research dimension: Interventions

There were initially two assumptions going into this research dimension:

- Currently, interventions for cohesive team development are rather chosen by accident than by intention towards a certain effect
- Use of collaboration tools for team building activities can per se be considered an intervention. Collaboration tools can be consciously / intentionally leveraged to gain a certain effect in the team

In the flow of the interviews both assumptions did not appear so interesting any more. It turned to be much more interesting to ask the interviewees about their perception of interventions they had taken part in. I recognized that I basically wanted to find out which interventions people liked to potentially replicate in other virtual events. Another interesting question was the one about the effect of interventions to get evidence whether they are good to replicate or not. Concluding back from the interviews both assumptions shall be replaced with two alternatives:

1. Virtual interventions have a different character than interventions of face-to-face meetings and getting the attributes of face-to-face interventions alongside with virtual interventions will make the latter more successful
2. There are replicable interventions and if applied in a comparable environment they will have the same effect on them members

Discussing the first alternative assumption: Virtual interventions have a different character than interventions of face-to-face meetings and getting the attributes of face-to-face interventions alongside with virtual interventions will make the latter more successful:

The first interview in its natural flow contrasted face-to-face interventions with virtual interventions. One big difference between them is defined by the environment: even initiated with a business background the face-to-face interventions IP1_1 reported about were set up outside a business environment and outside of regular working hours. IP1_1 described that as "much more relaxed" as you get to know people "outside of the business". Whereas a virtual meeting and virtual interventions take place in business environment and

"always remind business life". Comparing a face-to-face charity relating intervention with a virtual charity intervention IP1_1 contrasted the phrase "social natural human interaction" with "technical process kind of driven event". Another important aspect IP1_1 highlighted was about the "visual side" or "the excitement of seeing the people".

Which of those attributes or characters of face-to-face interventions are worth to be replicated? Should it really be the aim to replicate the effects of face-to-face intervention or won't it be a better goal to try to get the best out from the special character of virtual interventions? As virtual team meetings depend on the technical infrastructure the employer provides, they will probably always remind business life. And to engage employees outside business hours to meet their colleagues might be another challenge which should not be discussed here. I am of the opinion that team development should take place in business context and during business hours not taking the employee´s private time. Trying to get virtual interventions, team events or meetings perceived as "social natural human interaction" might be something to aim for. This could be worth a separate piece of research and this question has been added to the list of research questions being unfolded with this piece of research. Currently those tools are not advanced enough to be perceived as "social natural human interaction" instead of "technical process kind of driven event". Or might the users of those tools eventually not be advanced or common enough to perceive those tools as "social natural human interaction"? That links somewhat to one of the initial assumptions on this research dimension which has been skipped: that a use of collaboration tools per se might be considered an intervention or might be intentionally applied as intervention just to make employees common with their benefits and finally get people to perceive their usage as "social natural human interaction".

The only thing virtual interventions can replicate or rather should mandatorily process is leveraging synchronous visual channels with tools like webcams or videoconferencing systems.

IP2_1 emphasized on the visual elements too telling about a picture contest intervention. So even static pictures like photos of people are accepted, not only moving pictures a webcam or a videoconferencing-system transmits.

IP3_1 answered rather from a team lead perspective reflecting about the

participation of team members and their engagement. There have not been highlighted single interventions in this interview, rather than the effect of interventions and especially a desirable effect of interventions for future events: They should create a good vibration amongst people, communication and discussions, fun together, something to feel emotionally, having engaged not only single team members but as many team members as possible.
This shall be used as an <u>evidence for the second assumption, even if not talking about replicable interventions, but about the desirable effects those should have</u>: relax participants from business background; "get people excited" with letting them see the other participants in their synchronous reactions; the effect of a social human natural interaction; creating good vibrations amongst people; have people communicate and discuss & fun together; having not few but many people engaged in being active participants. Even these are qualitative aspects they appear very obvious indicators for evaluating the success of virtual interventions and overall the success of a cohesive team development event. And finally, two further questions should be added to the list of new but so far unsolved questions: Which virtual interactions do have those desirable effects? Do certain virtual interventions have equally the same replicable effects on all team members of the same or other teams? Or alternatively to which extend can an intervention result in replicable or at least comparable effects on single team members given the fact that each team member has his/her individual personal traits, professional experience and a different level of trust towards both other team members and team leads.

In summary:

Virtual interventions partially can replicate the effects of face-to-face interventions. Some of the reported effects might be applicable as measurable success factors for virtual interventions or for cohesive team development events at all. Leveraging more virtual interventions and getting people more common with might develop their social, natural human interactions - sooner or later, depending on the more or less advanced environment they are applied. This research cannot give a recommendation for virtual interventions aiming on a certain effect on team members or teams.
And basically, the interventions being used in face-to-face team development might be applicable for the virtual environment as well, even maybe with a

slightly different effect. Unfortunately, the academic literature that has been investigated does not detail on single interventions; it only provides some basic frameworks as being discussed in chapter 5.2.7.

7. 6 Suggesting Future Research

… about two main new research assumptions:

1. Dedicated and frequent cohesive team development intentionally taking up the special challenges of virtual multicultural teams will help to unfold the full potential of virtual teams.

2. The evolving electronic media if leveraged appropriate to the goal of an intervention are useful media to perform team development in virtual, multicultural teams having some potential to partially replace face-to-face meetings.

… and some other assumptions or questions:

→ About homogeneous versus heterogeneous Sub-Teams: heterogeneous sub-teams are less dangerous for the team cohesion of a bigger team than sub-teams

→ Effect of cultural motivated non-acceptance of collaboration tools on virtual team development

→ The potential correlation between communication style of a team and team cohesiveness

→ The potential correlation between trust and competition, looking at trust as a basic factor of team cohesion

→ The shifting meaning of trust by type of virtual team

→ Which balance between professional and private aspects should be supported when doing cohesive team development?

→ How to proceed to get a social natural human interaction alongside a virtual team event?

→ Do certain virtual interventions have the same or replicable effects on team members or whole teams?

→ Detailed investigation of the effects of certain interventions towards the task relating vs. person relating component.

→ To which extend can an intervention result in replicable or at least comparable effects on single team members given the fact that each team member has his/her individual personal traits, professional experience and a different level of trust towards both other team members and team leads?

→ Origin / antecedents of cohesion relating issues in virtual, multicultural teams

8. Draft for a framework of doing "cohesive team development"

Note: most of the items compiled to that draft have been discussed and referenced in this thesis before and are mostly based on the theoretical part of this study. Literature highlighted in chapter 5.2.1 has to be considered to be the main source. Many items did either come up in the empirical part of this thesis and triangulated these findings.

So far I have not tested that framework upon its practicability. It definitely requires some fine tuning which is however out of scope of this thesis.

To suggest a process of setting up a virtual cohesive team development:

1. Diagnose / assess status of social dynamics or current level of cohesion
2. Definition of the target area (or goal) of a cohesive team development
3. Identification of appropriate interventions having the potential to be successful
4. Identification of the best collaboration technology to place the intervention
5. Conduct the cohesive team development
6. Evaluation of success

Going forward for each of the six steps some ideas should be provided, how to do that or what to focus on:

1. Diagnose / assess status of social dynamics or current level of cohesion:

Indicators for the need of cohesive team-development:

- o   High workload in teams, declining work-life-balance, high pressure
- o   Quality issues of deliverables
- o   Interfaces do not work
- o   Communication style between team members
- o   Few and always the same people speak in regular team meetings
- o   Hot or cold conflicts in teams or between team members
- o   Strong and isolated appearing sub-teams
- o   The physical and psychological working conditions of the team members
- o   High heterogeneity or high homogeneity of a team
- o   Few face-to-face contact

Tools to assess a level of team cohesion:
- o Online questionnaires for team members
- o Observation guides for audio- and videoconferences
- o Professional observer from outside the team using guides or protocols in virtual meetings to examine processes and dynamics
- o If addressing especially the trust issue, investigate about the antecedents of trust

2. Possible target areas of cohesive team development:

Psychosocial well-being of team members:
- o A common, informal socialization of all team members (Köppel 2008)
- o Increase motivation of team members through identification with the team
- o Create a sense of belonging together through discovery of similarities
- o Create or support increase of trustful relationships amongst team members
- o Create a positive social climate and secures well-being of team members
- o Reduce conflicts

Creation of a certain team culture:
- o Balancing a culture of competition amongst individuals towards a culture of cooperation and the common goal of the team , reducing the feeling of competitive pressure on the individual team members, might increase the level of trust amongst team members
- o Allow a team history to develop
- o Prevent cultural stereotypes

Improvement of the organizational set-up of the team:
- o Integrate isolated team members
- o Increase synergies amongst team members from various sub-teams
- o Balance relational care within sub-teams versus a bigger team

3. Identification of appropriate interventions having the potential to be successful

- See chapters 5.2.7
- Duarte and Snyder: A new model of team development – Task and social stages of virtual teams
- Mapping basic criteria of interventions with the potential target areas of cohesive team development:

Criteria of the intervention	Potential target areas		
	Well being of team members	Team culture	Team organization
trust building	x		
create new similarities amongst team members	x	x	
disclose existing similarities amongst team members			
bring people together with social things	x	x	
include isolated team members	x	x	x
balance potential disruptive effects of strong local sub teams		x	x
avoid competition amongst individuals, rather focus on collaboration and team success		x	x
avoid reminding of business live, create a relaxed atmosphere	x		
might be virtual replications somehow of physical activities like sports or games	x	x	
enable a visual impression of a person	x		
support either or both: dyadic cohesion between two team members ; cohesion amongst the whole group	x	x	x
make members ´competencies and commitments visible to each other	x		x
create a team memory		x	
having knowledge about everybody ´s current status of work-life-balance		x	

4. Identification of the best collaboration technology to place the intervention

    See chapters 5.1; 5.2.6; 5.2.7;

    Duarte and Snyder (2006), Chapter 2 "Crossing Technical Boundaries"

5. Conduct the cohesive team development

6. Evaluation of success

Tools:

- o Online questionnaires for team members after a cohesive team development leveraging the same which has been used before such a dedicated activity
- o Observation guides for audio- and videoconferences to be used after an event
- o Professional observer from outside the team using guides or protocols in virtual meetings to examine processes and dynamics

Qualitative criteria to assess success of a virtual interventions or a cohesive team development event:

- o (Positive) Excitement of participants
- o Good or bad vibrations amongst participants
- o Level of participation (communication, discussion, preparation)

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10. Appendix

Eidesstattliche Erklärung

Ich versichere, dass ich die vorliegende Master-Thesis selbständig angefertigt und keine anderen als die angegebenen Hilfsmittel verwendet habe.

Unterschrift:

Erklärung für die Bibliothek der FH

Ich bin damit einverstanden, dass ein Exemplar meiner Master-Thesis in der Bibliothek der Fachhochschule Frankfurt am Main aufbewahrt wird und im Online Public Access Catalogue eingesehen werden kann

Unterschrift: