

Global Communication – Global Culture? – Influence Variables of Intercultural Communication in Virtual Teams and Signs of Virtual Culture

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Abstract: *Collaboration within virtual teams is becoming more and more important in business environment. Different studies try to identify factors which can contribute and augment effectiveness and efficiency within these teams. The following article- which is based on the results of a quantitative and qualitative study conducted in Germany and in the USA- shows that in both, the area of media competence as well as in the area of Intercultural Competence, lies the potential to improve the collaboration between virtual teams and thus to increase their effectiveness and efficiency. The study provides important implications for science and practice.*

Keywords: Virtual teams, virtual communication, media competence, intercultural competence

1. Introduction

Due to the increasing international interdependence and economic consolidation, employees of in countries around the world increasingly work with organizational members from other countries. To support the effectiveness and efficiency of the collaboration between these organizational members, different information- and communication- technologies are available. In particular for organizational members who shall work across national frontiers, the application of these technologies is forced. The reason for the utilization of these media does not only lie in the low costs, but also in the possibility to perform a synchronous communication across frontiers. But how successful are such virtual teams and what challenges do they have to master? The following article will- based on the results of a qualitative and quantitative study with German and US-American team members- answer this question and as well provide implications for the future collaboration within virtual teams.

2. Theoretical foundations

The Research Area of “Collaboration”

There has been much research dealing with group dynamics and team efficiency and further findings are continuously added due to the general framework of economy and organizations increasingly change. The research area of “collaboration” in contrast is relatively new. This area

investigates how the collaboration of individuals in work groups or teams can be enhanced regarding effectiveness and efficiency with the help of information- and communication-technologies (ICT). This is described by authors with the help of diverse terms coming from different disciplines. Computer-supported cooperative work, computer-mediated communication, collaboration technology or coordination technology are only some of the synonymously used terms (Teufel et al. 1995). For this article, the term collaboration shall be taken as a basis. The term collaboration originates from the English language and is today especially used in the IT-area to describe the collaboration on a common issue with the help of ICTs.

Every kind of collaboration can be classified into three processes: cooperation, coordination and communication that are summarized under the term collaboration (Teufel et al. 1995). In some models, communication is seen as the basis for every kind of collaboration (cooperation and coordination) (Teufel et al. 1995). In any case, this is of great importance for successful collaboration, and this is the reason for the fact that this article mainly deals with the aspect of communication.

The collaboration of teams, whose members work at different locations, is also called spread collaboration. Due to the spatial separation, the teams need support in the areas of communication, cooperation and coordination provided by IT with the help of so called collaboration-tools. A tool means in this context a solution or application supporting one of the three collaboration-functions. A phone or a video-conference-system is for example a communication tool; as an example for the support of cooperation or coordination, computer applications as well as mutually used calendars or file stores can be mentioned.

Collaboration in Virtual Teams

Teams that are working under the condition of great distance are occasionally called virtual teams because of their dependence on ICTs. "Virtual teams work across spatial, temporal and organizational frontiers, whereupon they communicate with the help of media (in terms of ICT, respectively)" (Liebig & Schütze 2001, p. 83 translated by the author).

When people work together, this is always influenced by external factors. While traditional work groups are influenced by organizational, psychological and economical aspects, for spatial-separated teams- due to the dependence on communication media- furthermore technological influences have to be considered. The influences on collaboration can be thus summarized and analyzed under the three umbrella terms of person, technology and organization (PTO) (Olson & Olson 1997). People are the basis for every kind of collaboration and are thus in the focus of this article. The influences of the factor "people" on collaboration are for example individual characteristics, origin and background of team members like knowledge, competences, age and culture. But also the individual intention for and during the cooperation can have an influence, for example when persons only take part in a meeting to be present (especially common in the USA and known as "face time"). Also the compilation of a work group depends on the interpersonal interaction (Olson & Olson 1997). To the technical influence factors belong the for the work utilized tools. Here, one can basically distinguish between pure communication technologies like E-Mail, telephone or video, and technologies that support the subject matter of work, e.g. commonly used internet portals or simply

protocol systems. The term organization refers on the one hand to the structure as well to the applied work processes and methods of a team, but on the other hand also to the organizational structure and culture, like e.g. hierarchy levels, task distribution and defined communication processes within the enterprise. Thereby especially the direct form (person-person, *face to face*) and the synchronous technical mediated shape of communication (person-machine/machine-person) are regarded. Other forms of communication, like e.g. asynchronous individual communication (e.g. via E-Mail) or mass communication (e.g. company newsletter, screens) are not considered here.

The collaboration in virtual teams implies different advantages and disadvantages. Due to the difference in presence, regarding communication, not all channels are available, like e.g. when regarding face to face (FTF) interaction. Communication takes place with reduced channels (Döring 2003). For spread collaboration, virtual teams are in need of technically provided communication. This kind of collaboration features the enormous advantage that internationally-spread professional knowledge and competences can be bundled in a task-oriented way. Due to these teams never or rarely meet each other, also disadvantages can arise.

There are no distinct findings yet about the question in what way technology changes communication in this case. One acts on the assumption that the collaboration in virtual teams is however more communication-intensive than in traditional teams, but leads to deficits at the same time. Especially regarding socioemotional communication tasks, like e.g. teambuilding, deficits can be found (Liebig & Schütze 2001). Also referring to the work on tasks, communication is limited by technology. Creative collaboration on an object with the help of gestures in the air etc. as well as the mutual work on a handwritten document is not possible without difficulties. "The more the communication success is at risk due to complexity and ambiguity of the content, the more members of virtual teams revert to rich media (FTF communication in "the case of emergency")" (Liebig & Schütze 2001, p. 84 translated by the author). However it remains unclear whether intercultural communication is impeded or eased through less information sources by this.

Intercultural Competence

Regarding virtual teams whose members come from different cultures, different communication stereotypes clash. Every team member brings the beliefs of his/her culture and has his/her own understanding of the shaping of successful communication as well as successful virtual communication ("It has to be this way").

Simple interaction patterns of every culture like interruption, waiting, and affirmation due to politeness or rejection also occur in the case of virtual communication. The limitation of communication channels, as already described, seems to lead to the fact that communication is more performed on the factual level and that the interpersonal level is less existent. Especially the sensitivity about the own culture and intercultural competence are more associated with relational aspects of communication concerning the subjective theories of people, even when there are no clear empirical findings about this.

Intercultural competence starts with the reflection of the own culture and the consciousness that intercultural competence also deals with communication situations that are not usual. Just

as it would be wrong, referring to a video conference (VC), to assume the same perceptual conditions like in FTF situations, it would be also wrong to take part in an intercultural meeting without being aware of the fact that also in this case different perceptions of the participants on the cultural level are existent. In this context, the- especially from the psychological perspective- relevant culture definition of Thomas (1993) has to be considered who understands culture as an universal- for a particular nation, society or group- but very specific, *orientation system*:

This orientation system is constructed with the help of specific symbols and handed down in the particular society etc. It influences perception, thinking, evaluation and acting of all its members and thus defines their membership to society. Culture as an orientation system structures for the individuals who affiliate themselves to the society a specific area of acting and creates therewith the condition for the development of discrete forms of environmental coping (Thomas 1993, p. 380, translated by the author).

To promote intercultural competence, not only expatriates, but also employees working in international teams for the first time should be adverted to offers of intercultural trainings and be encouraged to take part in these. Already a newsletter that can be accessed by all employees can call the attention to the specific characteristics of intercultural collaboration and thus increase the success of intercultural projects without being forced to send every employee to a seminar.

3. Question and Study Design

The study describes the problem areas and self-perception and the awareness of others in intercultural virtual teams working in a big German company from the automotive industry sector and a subsidiary company in the USA.

Three central questions are investigated. First, what is the current state of communication between teams in both companies under the special consideration of virtual communication? Several dimensions of virtual communication and team building have been evaluated. For this purpose, a mix of methods of quantitative and qualitative methods was used. Building on this, several conflict areas and the self-perception and the awareness of others in intercultural virtual teams were identified and diagnosed (qualitatively and quantitatively). Third, in the context of practice-oriented personnel development measures, several measures and implications for action were worked out to identify the predictors of successful virtual intercultural communication and apply a well-directed promotion (quantitatively, T-test).

From these three central questions, the following hypotheses, corresponding to certain practical issues, were deviated:

H.1: The analysis of the current state of communication shows that in the case of meetings in a foreign language (for Germans), channel-rich media are helpful for comprehension, due to VC is to be preferred to telephone and FTF outmatches both media. Thus it is assumed that both groups (Germans and Americans) show higher values regarding the affirmation during Face-to-Face communication as a mode of intercultural communication.

H.2: The analysis of the current state of communication shows that the efforts to initiate video-conferences have an influence on the utilization of this medium. It is assumed that these are not increasingly booked, even if they would be available.

H.3: Culture influences virtual collaboration, but is yet too less considered. The importance of the criteria of a successful video-conference differs between Germans and Americans.

The investigation followed a methodological mix of qualitative and quantitative instruments. First, several semi-structured and guideline-based experts-interviews (Atteslander 2003) with team members from different German-American projects of the investigated company were conducted to find out what factors of social, psychological and cultural kind could possibly influence the communication in the international environment (Germany-USA). These interviews served to gain an overview about the actual situation and a basic understanding of the topic. Four groups of questions were asked: questions about the occupation, questions about international collaboration and communication, questions about the choice of the tool in dependence of the situation in the project/team and questions about cultural differences and perceptions during international collaboration.

From this, questions and items for a written survey were deviated. The deviated questions were closely formulated and mapped on a five-stage Likert-scale (1="totally disagree" up to 5="totally agree"). The deviated questionnaire consisted of several groups of questions: questions about the occupation, introducing questions about collaboration, questions about vocational traveling, choice of tools in dependence of the situation, kinds of meetings and collaboration, video-conferences, business meetings & language, collaboration between Germans & Americans and feedback.

This quantitative survey was carried out online and was addressed to organizational members of the investigated company in the automotive industry in Germany and the USA. The method of *back – forward* translation was used to validate the questionnaire in English.

The execution of the investigation took place in the winter of the year 2008 and lead to a sample of overall 45 participants. 54,7 % of the respondents were raised in Germany and 22,6 % in the USA. Further 3,8 % come from Austria or Switzerland. These probands are added in the further process of the analysis to the German-speaking cultural area. Additional 5,7 % stated to have been raised neither in the USA nor in the German-speaking culture area. Due to their mother tongue is however English and they live and work in the USA, in the following, only a differentiation between Americans and Germans is done for practical reasons. All American respondents work together with German locations and 86,7 % of them have already been to Germany for a longer period of time. Of the German share of the sample, 88,9 % work in cooperation with the USA, whereupon 81,2 % of them have already been to the USA. The composition of the sample had to conform to the condition that all participants belong to a team and also virtually communicate with each other. Thus, this study is of high practical relevance; however it is not clearly generalizable.

4. Results and Discussion

In the following, first of all, only those results shall be presented that deal with the technical aspects of FTF communication, telephone-conference (TC) and video-conference (VC). Subsequent to this, single aspects will be presented that illustrate that the particular cultural imprint in the context of collaboration when regarding virtual teams becomes visible and has accordant effects on effectiveness and efficiency.

The first hypothesis of the investigation deals exactly with these questions: The analysis of the current state of communication shows that during meetings in a foreign language, channel-richer media are helpful for comprehension, for what VCs are to be preferred to telephone and FTF outmatches both media. For the answering of this hypothesis it was investigated for Germans and Americans with the help of mated comparisons what medium in dependence of the mother tongue and foreign language is used (see Tables 1 and 2). The results show that Germans prefer FTF communication instead of TC or VC; the choice of language is then irrelevant (see Table 1). The US-Americans in contrast feel fine independent from the medium, as long as the communication is in English (see Table 2). Referring to the hypothesis it thus can be said that FTF overall is significantly better evaluated than telephone or VC, however the medium VC also for meetings in a foreign language seems (yet) not to be seen as an advantage towards the telephone. In accordance with this, the hypothesis can only be partially confirmed.

Table 1: Overview over the analysis regarding the preference of collaboration-tools (Germans) .

nationality			mated differences					T	df	significance (2-sided)
			mean value	standard deviation	standard error of mean value	95% confidence interval of the difference				
						lower	upper			
Germans	Mating 1	TC MT-TC FL	,667	,758	,138	,384	,950	4,817	29	,000
	Mating 2	VC MT-VC FL	,600	,770	,141	,312	,888	4,267	29	,000
	Mating 3	FTF MT-FTF FL	,323	1,013	,182	-,049	,694	1,773	30	,086
	Mating 4	TC FL-VC FL	-,033	,320	,058	-,153	,086	-,571	29	,573
	Mating 5	VC FL-FTF FL	-,367	,556	,102	-,574	-,159	-3,612	29	,001
	Mating 6	TC FL-FTF FL	-,400	,498	,091	-,586	-,214	-4,397	29	,000
	Mating 7	TC MT-VC MT	,033	,183	,033	-,035	,102	1,000	29	,326
	Mating 8	VC MT-FTF MT	-,233	,626	,114	-,467	,000	-2,041	29	,050
	Mating 9	TC MT-FTF MT	-,200	,484	,088	-,381	-,019	-2,262	29	,031

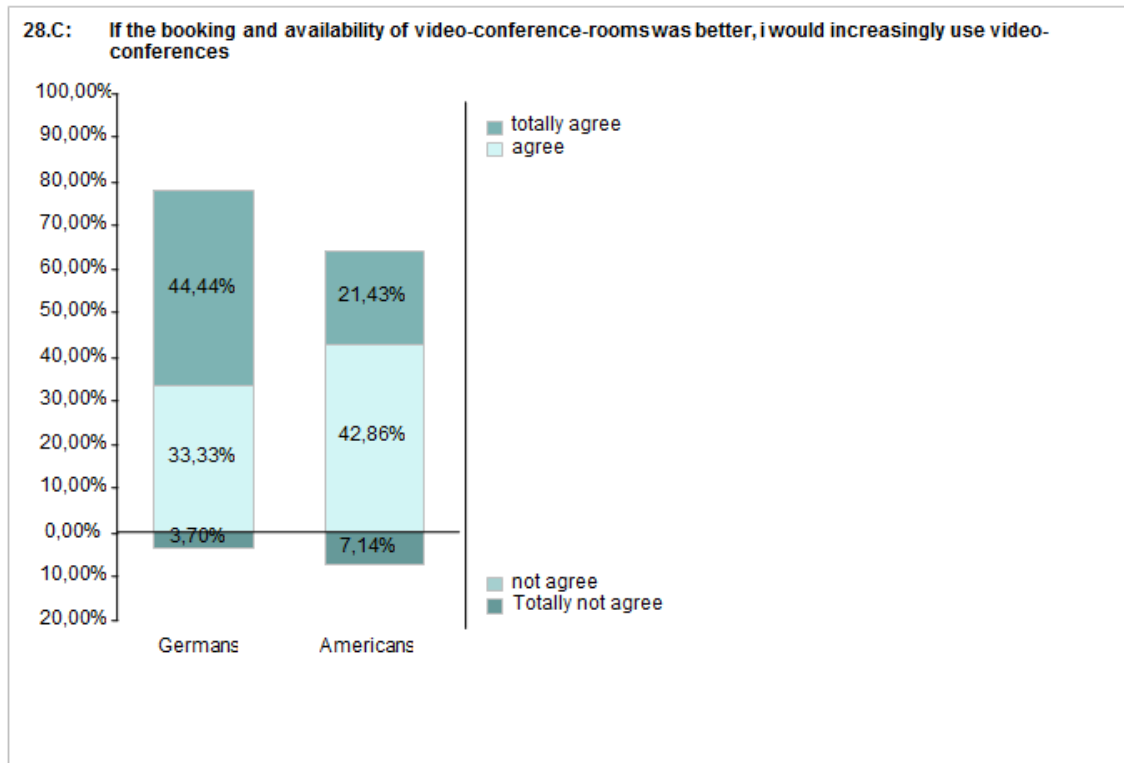
(MT=mother tongue; FL=foreign language)

Table 2: Overview over the analysis regarding the preference of collaboration-tools (Americans)

nationality		mated differences						T	df	significance (2-sided)
		mean value	standard deviation	standard error of mean value	95% confidence interval of the difference					
					lower	upper				
Americans	Mating 1	TC MT-TC FL	2,500	,941	,251	1,957	3,043	9,946	13	,000
	Mating 2	VC MT-VC FL	2,357	1,008	,269	1,775	2,939	8,748	13	,000
	Mating 3	FTF MT-FTF FL	2,214	1,311	,350	1,457	2,971	6,318	13	,000
	Mating 4	TC FL-VC FL	Cannot be calculated due to the standard error of the difference equals 0							
	Mating 5	VC FL-FTF FL	-,357	,745	,199	-,787	,073	-1,794	13	,096
	Mating 6	TC FL-FTF FL	-,357	,745	,199	-,787	,073	-1,794	13	,096
	Mating 7	TC MT-VC MT	,143	,363	,097	-,067	,353	1,472	13	,165
	Mating 8	VC MT-FTF MT	-,214	,579	,155	-,549	,120	-1,385	13	,189
	Mating 9	TC MT-FTF MT	-,071	,267	,071	-,226	,083	-1,000	13	,336

(MT=mother tongue; FL=foreign language)

The analysis of the second hypothesis shows that a main problem for the utilization of the medium VC lies in the bad availability of video-conference-rooms referring to the investigated company. This attitude is similarly shared by Germans and Americans (see Figure 1).



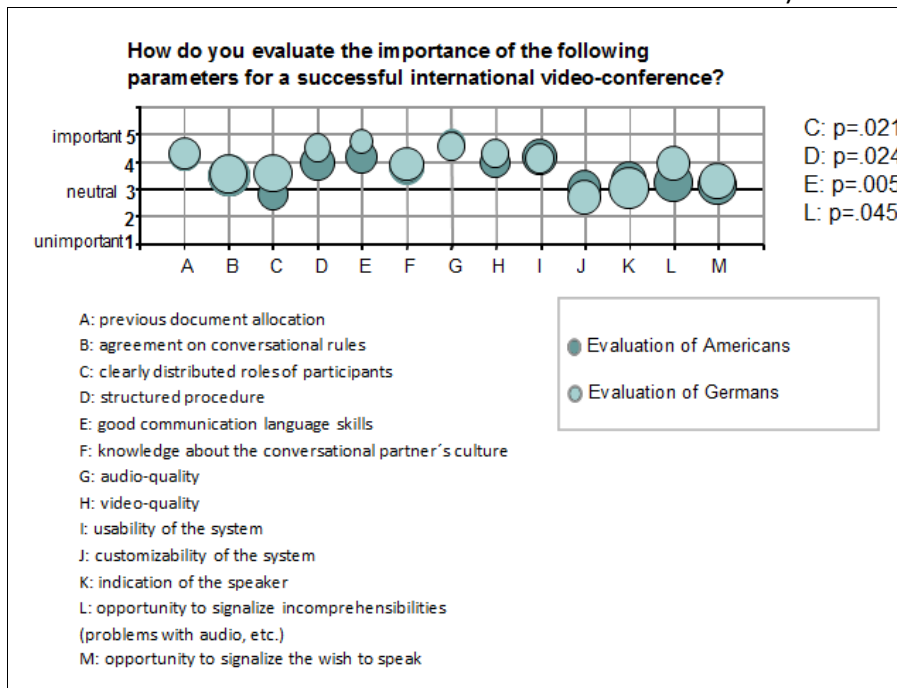
The further analysis with the help of the T-test shows that the medium VC would be more frequently used, when booking and availability of video-conference-rooms were improved or increased, respectively (see Table 3). Additionally, the results show the trend that Germans would increasingly book VC, when booking and availability were better.

Thus, hypothesis 2 is refuted (“The analysis of the current state of communication shows that the effort to initiate a video-conference has an influence on the utilization of the medium. It is assumed that they would not be more frequently booked, even when they were available”).

Table 3: Overview over the analysis regarding the utilization of VC, if booking and availability were better

nationality		Test value = 4,5								
		Mean value	Standard deviation	Standard error of the mean value	T	df	Significance (2-sided)	Mean difference	95% confidence interval of the difference	
									lower	upper
Germans 28.C		4,41	,908	,194	-.470	21	,644	-.091	-.49	,31
Americans 28.C		4,00	1,155	,365	-1,369	9	,204	-.500	-1,33	,33
nationality		Test value = 4								
		Mean value	Standard deviation	Standard error of the mean value	T	df	Significance (2-sided)	Mean difference	95% confidence interval of the difference	
									lower	upper
Germans	28. B	3,38	1,396	,305	-2,033	20	,056	-,619	-1,25	,02
	21.I	4,10	,759	,139	,722	29	,476	,100	-,18	,38
Americans	28. B	3,36	1,567	,472	-1,347	10	,208	-,636	-1,69	,42
	21.I	4,13	,834	,215	,619	14	,546	,133	-,33	,60

In addition to these media-conditioned characteristics, in the following, cultural specifics are more investigated in detail to test for the postulated hypothesis H.3 (“Culture influences virtual collaboration, but is yet too less considered. The importance of the criteria of a successful video-conference differs between Germans and Americans”).



The biggest differences between the both groups lie in the points C (role-distribution of the participants- Germans 3,59, SD= 1,12; Americans= 2,89, SD= ,80), D (structured process, Germans 4,47, SD= ,63; Americans= 3,93, SD= ,88), E (knowledge of communication language,

Germans 4,43, SD= ,52; Americans= 4,14, SD= ,77) as well as L (Opportunity to signalize incomprehension, Germans 3,90, SD= ,92; Americans= 3,23, SD= 1,09). The comparison of mean values provides significant results in all cases; referring to language competence even a high-significant result. Analogous to the in the previous section described attitudes towards foreign languages, at this point, it can be assumed that Americans- due to the fact that they themselves do not have foreign-language skills for the most part- evaluate this parameter to be less important by trend than the Germans. With an evaluation of 4,7, Germans refer to this parameter as being the most important. When one assumes that for them, a video-conference without foreign-language skills would not be possible (without interpreter) with the Americans, the necessity for the Germans to speak English is enormous.

Table 4: Evaluation of VC parameter of Germans and Americans (comparison of mean values in the case of independent samples)

		Levene-test for variance homogeneity		T-test for mean value homogeneity						
		F	significance	T	df	significance (2-sided)	mean difference	standard error of the difference	95% confidence interval of the difference	
									lower	upper
C: clearly distributed roles	variances are similar	2,39	0,13	2,391	41	0,021	0,8	0,335	0,124	1,477
	variances are not similar			2,682	34,688	0,011	0,8	0,298	0,194	1,407
D: structured procedure	variances are similar	0,248	0,621	2,337	43	0,024	0,533	0,228	0,073	0,994
	variances are not similar			2,088	21,326	0,049	0,533	0,255	0,003	1,064
E: good communication language skills (English)	variances are similar	3,118	0,085	2,995	42	0,005	0,59	0,197	0,193	0,988
	variances are not similar			2,604	18,756	0,018	0,59	0,227	0,115	1,066
L: opportunity to signalize ncomprehensibility	variances are similar	0,83	0,368	2,066	41	0,045	0,669	0,324	0,015	1,323
	variances are not similar			1,931	19,794	0,068	0,669	0,347	- 0,054	1,393

For the optimization of the collaboration it should be considered that the attitude towards regulations *during* a conference is very different.

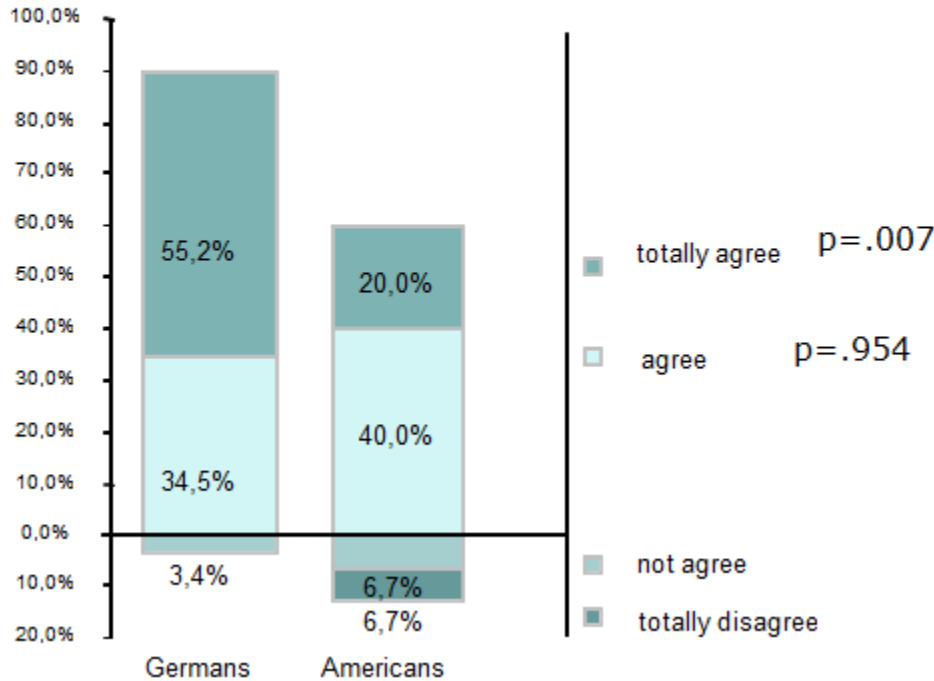
Referring to the technical support of communication, like e.g. the customizability of the system or a marking of the speaker by the system, these are seen as being less important by both groups. The reason for that can either be found in the possibility that the respondents are not able to imagine something concrete under these aspects; or it is assumed that these aspects of communication can be interpersonally organized and do not require technical support or this support is not wished, respectively.

It is interesting to see that the opinions of Germans and Americans are significantly different regarding point L ("Signalization of incomprehension"). However, the reasons for the different attitudes are known, but it could be supposed that Germans have more troubles with language than they are willing to admit. This would be compatible with the assumption that they overestimate their English skills. The wish to signalize incomprehension with the help of technology, e.g. through an optical signal, could be also traced back to the currently not sufficiently good enough audio quality of video-conference-systems. A technical support would be insofar an advantage, as that the conversational flow has not to be interrupted to advise the conversational partner for an existent error or their incomprehensible way of speaking.

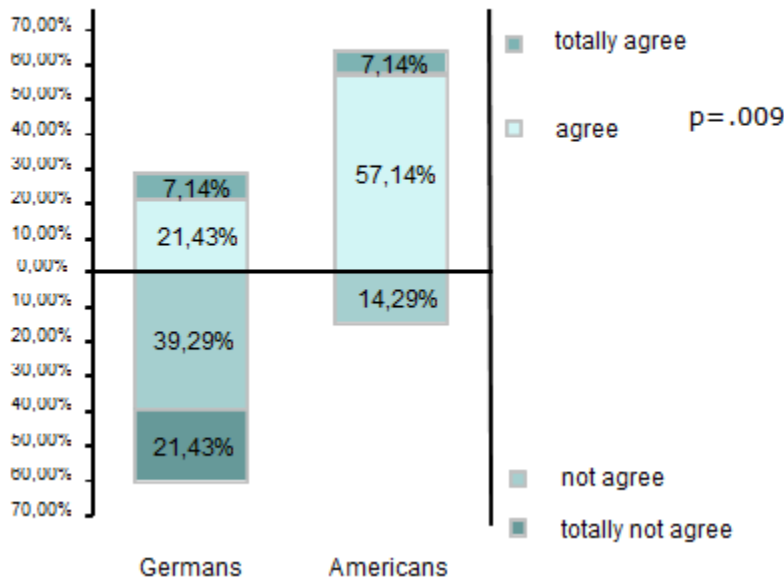
These differences can however also be culture-based and thus reveal different orientation-patterns. It is very important for Germans that the roles of the participants are clearly distributed, that a structured procedure takes place, that the communication-language is mastered and that incomprehensibilities can be signalized (see Figure 2). This can be country-culturally explained by the- in comparison to the US-Americans- higher uncertainty-avoidance and higher power-distance.

The further investigation additionally shows that to the Germans, personal contact (see Figure 3; Germans 4,41, SD= ,78; Americans= 3,60, SD= 1,12; $T = -2,818$, $df = 2; 42$; $p = ,007$) as well as FTF-communication(see Figure 4, Germans= 2,54, SD= 1,26; Americans= 3,57 SD= ,85; $T = -2,765$; $df = 2; 40$; $p = ,009$) are much more important than to the US-Americans. Germans predominantly have not the opinion that a video-conference- even if it could equally display gesture, body language and facial expressions like this is possible during FTF-communication- could replace a personal conversation. According to this, Germans and Americans have a different attitude towards the collaboration-tool VC. Also this difference between the both groups of probands is culturally conditioned and shows the high individualistic shape of the USA, for which always the issue and not the person is in the foreground.

To be able to work together in a good way, one has to already personally met each other



If one could see gestures, body language and facial expressions in the same way like in a FTF conversation, VC could replace a personal meeting



It is to assume that the medium VC to the actual point in time, both due to the limited technical opportunities of the utilized systems and also due to the handling of the medium, only conditionally means an additional benefit for the communication of German and American

employees. Because successful communication always depends on the participating individuals, it has to be individually designed for every project and team. Moreover is and should the choice of media always dependent on the communication-task and –situation. Independent from the fact whether the members of a virtual team feel VC to be a sufficient replacement for FTF or not, no clear statement about the efficiency of the work result of VC meetings in comparison to FTF meetings is possible.

5. Conclusions of the Investigation

The investigation shows that in both, the area of media competence as well as in the area of Intercultural Competence, lies the potential to improve the collaboration between virtual teams and thus to increase their effectiveness and efficiency.

Media Competence- cross-culturally thought?

As long as VC from the technical point of view cannot be utilized intuitively and without errors, it is crucial to promote the media competence of the users of video-conference-systems. This does not mean technical trainings, due to the producers of the systems realized long ago that the simple usability is an essential success-factor (Lautz 1995). Furthermore the technical preconditions to enable a video-conference are seen by the users as a given fact, which means that the systems must either operate faultlessly or there has to be support available before and during a video-conference. It cannot be expected from the user to have deeper knowledge e.g. about the kind of connection, the installation of the system, etc. Rather, regarding the promotion of media competence, this has to be about a basic clarification of the possibilities and specialties of the communication form VC.

Due to pure behavioral trainings include the risk that to the communicative behavior could be too much attention given to in practice, what would imply a non-natural conversational situation (Lautz 1995), the creation of media competence ideally means that employees for example in terms of an introduction or as observing participants of a video-conference get to know the medium. With the help of a clarification, communication can be designed more efficiently, possible frustration due to a lack of knowledge referring to the medium can be avoided and thus the acceptance towards the medium can be increased, what finally leads to a reduction of costs and time.

To such a clarification belong either technical aspects, like e.g. amount of locations with whom the system can connect at the same time, or the possibility to send a presentation to the screens of all locations, as well as useful tips. The latter include amongst others that one has to adjust to a delay of the broadcast, which could lead to the consequence that the participants could interrupt each other. In addition, the participants of a video-conference should be aware of the fact that sometimes a block-building between the participant locations can occur that negatively influences the meeting, when not countered. Also the participants have to know that wild noise by the other side, if applicable, is as loudly perceived as by the speaker. In the case of a multiple switching, where the camera is controlled by noises, it can occur that a (beside) noise source is unintentionally in the image. According to the equipment, it could be wise to wear single-colored clothes, due to patterns (squares or stripes) in the worst case can lead to a worse

quality of the image (image buildup-speed, definition) or color errors (Vitec 2007). Moreover, some systems offer the opportunity to control the camera of the other side, what enables in the case of an image of a larger group to focus the actual speaker in detail and to perceive nonverbal signs.

Referring to communication organization, the users have to be aware of the fact that a missing eye contact, e.g. in the case of a speaker change, verbally and with the help of clear gestures, has to be compensated. Especially such or alike tasks of the kind of conversational structure can be well-controlled by the moderator. Much more than in the case of a FTF meeting, he or she has the task to involve the participating locations in the conversation and to pay attention to that no different conversational strands develop, but a common focus on the agenda is kept.

However, even the handling of media is culturally coined. The study shows that country-cultural specialties also manifest in virtual collaboration and lead to misunderstandings and conflict. While Germans prefer a structured and planned process of a VC, it is more important to Americans to create a positive and easy atmosphere. Although both pursue the same goal- the execution of a successful virtual collaboration- this goal is culture-specifically pursued, what can lead in the case of a lack of knowledge of the cultural specifics of the counterpart to difficulties and perhaps to a failed virtual collaboration. To successfully master this handling is thus a big challenge and a crucial success factor. The simple training of media competence is not enough to aim for a successful collaboration; in addition, intercultural competence has to be promoted. This can happen with the help of intercultural trainings as well as newsletters presenting the most important cultural differences and similarities. The success of business meetings always depends on cultural aspects and aspects with regards to content. Especially when regarding international video-conferences, the participants should culturally and with regards to content prepare themselves for a meeting. In the case of an international video-conference, compared to a FTF meeting abroad that implies traveling, one has not the same preparation time to adjust oneself to the other culture. One stays in the familiar environment, but is suddenly taking part in an international meeting. This aspect every time has to be considered again.

In German-American meetings, English mother-tongue speakers should be always aware of the fact that they- as good as the English of their colleagues might be- do not deal with mother-tongue speakers. They thus should adapt their choice of words and rate of speaking. For both, Americans and Germans, it is helpful to ask questions or to control the comprehension of the said words with the help of a summary before answering. In this way it can be secured that both sides mean the same. Due to reasons of possible occurring language difficulties it is very advisable for business meetings, where not all persons are mother-tongue speakers, to schedule a longer time frame than usual.

Also in the case of video-conferences, one has to schedule more time due to longer start-up phases or there has to be a person responsible for the creation of the connection before the official start of the meeting to avoid a late start. During the greeting and opening of a video-conference, it is also helpful to ask if one can be understood and seen by the other side. Furthermore the adjustment of the camera and volume avoids possible interruptions during the course of the meeting. When the situation seems to be tense in the beginning, this can be resolved by introducing each other and for example shortly talk about the situation at the own

location. This helps- not only in intercultural situations- to create a feeling of mutuality in spite of spatial distance. While a rainy evening before a holiday could be the case in Germany and the reason for a possible bad mood of the participants, at the same time, a sunny and relaxed morning in America can be the case. Such possible differences in mood and stressing situations would be directly felt by participants of a FTF meeting, while during a VC, the felt situation is predominantly verbally created.

A sense of community can be promoted also during a meeting by short jokes or anecdotes. Especially to the Americans it is important to create a relaxed situation. Although jokes are very useful to avoid conflicts or to relax a situation, they have to be handled with care. On the one hand the jokes have to be understood by every culture and not to be seen as nasty or abusive. On the other hand, these tries to relax a situation can have a contrary effect on VCs when they are not targeted enough to involve every location to the same extent. Even when one is not physically present at a location, it is important to be always aware of the fact that a common meeting is taking place. The sensation of “we here” and “they over there” (on the screen) is even increased by differences in language (the one side speaks German and the other English). The participants should try to avoid such situations by consequently keep the meeting’s language- even when comments about the neighbor and especially jokes for the community are the case.

A further aspect to facilitate collaboration is to approach to the habits of the other. While the Americans have to adjust to the fact that Germans need detailed background knowledge, the Germans can try to relax their presentation to easier reach the Americans. None of the both sides should obstinately try to keep the own procedure, but openly and positively talk about the collaboration to clear misunderstandings.

The most important of all rules that must not be forgotten after all these hints is to behave in a natural way above all. As already described, it is a typical German manner to create rules for everything to be secure. Thereby it must not be forgotten that human communication works since ever. Thus, humans will always also find a way to use new media and ways of communication for themselves in a good way (see Figure 5).

6. Methodological limitations of the study

The practicability of the implications for action- as one of the most important quality criteria in the area of Organizational Psychology- is given through the study at hand, so that the study in every case illustrates the challenges as well as predictors for the improvement of virtual collaboration.

However there are some methodological limitations and limitations with regards to content that have to be considered. On the one hand it has to be mentioned that due to the analysis of a parent company and a subcompany, only a specific and selective examination can be the case. Furthermore the equalization with regards to content of country- and company-culture as well as the herewith involved assumptions are problematic. However it was indicated that in the context of the investigation, country-cultural specifics could be identified, however it would be also possible that organization-cultural specialties are the case. Further studies investigating

different companies with offices in Germany and the USA could provide clarification. Furthermore due to the small sample choice, a generalization is not possible. With the help of the use of selected standardized methods of collecting data, at least the external and internal validity was secured.

Finally, it has to be mentioned that the study at hand- under the consideration of the described limitations- provides important implications for science and practice. According to this, referring to future virtual collaborations, the media –as well as intercultural competence- should be taken seriously and accordingly be considered as predictors of a successful collaboration.

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Figures

Figure 1: Overview over the analysis regarding the utilization of VC, if booking and availability were better

Figure 2: Analysis regarding the parameter of a successful international VC

Figure 3: Analysis of the importance of a personal meeting

Figure 4: Analysis of the possibility that VC could replace FTF

Figure 5: Cisco TelePresence