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Acquiring skills for virtual multicultural teams through a business game

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Abstract — In our contribution we will analyze typical behavioral factors coming up in virtual multicultural teams, thus in teams working together across geographical boundaries by communicating mainly by the use of electronic media. With the help of an online business game we aim to find innovative ways to train team members and leaders to acquire skills required for efficient virtual multicultural teamwork and communication. Students’ data will help in a first step to find out more about the factors influencing virtual multicultural teams and will, as a second step, serve as a basis for creating a virtual team training for business.

Keywords — virtual multicultural teams, virtual team skills, virtual communication, training

I. INTRODUCTION

Along with globalization of business also the way of organizing work and accomplishing tasks has rapidly changed from founding of traditional organizations and teams towards formation of project teams that are loosely coupled and literally distributed around the world. Virtual organisations may one day be built more from outsourced functions or even processes, than from owned or member-determined organisations [1], [2].

Even today, most of larger business organizations, to some extent, employ virtual teams to develop new product, support customers, solve problems, conduct strategies or market their products worldwide [3], [4]. The reasons behind this development are manifold, but obvious: 1) forming of a virtual team takes only minimal time as best experts located in different countries / units can be ‘brought’ together to work on a common goal immediately without them having to move from one country to another, 2) remarkable savings in travel time and travel expenses are gained as team members utilize modern telecommunication technologies in their intercourse 3) the organization becomes more competitive due to increased flexibility as reforming and dismantling a team with no established personal ties between the team members is easy [4], [5]. However, working in such a virtual team — i.e. collaborating with partners who are geographically dispersed and thus not only unseen, but more or less unknown, by primarily using electronic media — brings along many challenges compared to “traditional” team work. Examples are not only linked to the mastering of new technologies, but to dealing with virtual communication as such. Furthermore there are challenges related to leadership, power development, information sharing, establishing effective working relationships, creating commitment and feelings of belongingness, but also challenges related to multicultural composition of most virtual teams [4], [6].

These challenges are often underestimated by companies but might end up in disastrous outcomes such as total failures in trying to build well-functioning multicultural teams just by picking up the best experts without securing their compatibility as a team [3], [7]. In international organizations such problems are not new as poor post-acquisition integration and adaptation of personnel is reported to be one of the most typical reasons for the failure of international mergers [8], [9].

There are two parallel schools of research on virtual organizations: the information systems approach that puts the emphasis on the new technology and ICT solutions as the elements of virtual working context and the organizational behavior approach that focuses on the human aspects of working in virtual organization. A vast majority (45-50%) of the recent research on virtual teams within organizational and business studies has concentrated on leadership issues, whereas clearly less interest has been devoted on studying virtual working as such (10-15%). Equally low is the number of studies on virtual communication (10-15%), only part of which then is targeted on multicultural communication challenges in a
virtual work context. Not only is there an obvious shortage of theoretical knowledge based on empirical research on virtual multicultural teams [10], [11], but also urgent need for high level training for virtual teams [4].

II. PURPOSE AND DEFINITION

Even though the ICT technology plays an important role in the communication and co-operation within a virtual team as well as in their contacting with other actors e.g. teams and customers, it is not in the focus of this study. Instead this study relates to organization psychology, intercultural studies and leadership theory by putting the emphasis on behavioral and communicational aspects in a virtual team. Therefore, in our contribution we will analyze typical behavioral factors coming up in virtual multicultural teams in order to find innovative ways to train team members and leaders to acquire skills required for efficient virtual multicultural teamwork and communication.

In this study a virtual team is understood as a group of geographically and/or organizationally, but many times also temporarily dispersed knowledge workers that is brought together across time and space by the help of ICT to work on important tasks while physically remaining apart. In such a team networking (i.e. communicating, gathering and sharing information, collaborating and making decisions) primarily takes place without face-to-face contact of the team members [10]-[13].

III. METHOD AND PROCESS

A. Virtual Team Project as a Research and Training Experiment

We present the concept and first insights of a training module for virtual multicultural teams. The idea behind and first step of the project which relates research and practice is a virtual team project among business students at two universities, namely the Johannes Kepler University, Linz (Austria) and the Turku School of Economics (Finland) including an online business game and some training sessions. As a second step these virtual team training and research sessions are carried out in real teams of MNCs. First experimenting and studying the virtual training module with the business student groups gives us a possibility to utilize the experiences gained for developing the training to better meet the needs of real teams in MNCs.

The teams in both the students and the business project are formed around playing RealGame™ — an online business simulation game that involves the participants in continuous real-time decision making on typical business processes in a multinational production company. RealGame™ includes most important core functions of a business organization out of which each team represents one.

RealGame™ is a training environment for companies in a continuously changing environment. Being real-time processed means that the participants are part of the business processes and, that the company functions are transparent in the game. Everything taking place inside the simulation game company as well as the external business transactions can be seen on the screens of the participants’ computers. One of the original purposes of the RealGame™ training has been to give the participants a holistic view on the processes of a MNC — ability needed for integrated corporate thinking. Particular aspects affecting the company performance, such as the delivery problems of ordered goods/payments or time lag in international trade also being faced enlighten the delay between planning and execution.

More importantly, in this particular research experiment, the team members are confronted with challenges stemming from cultural differences and physical distance within and between teams. All of which train the team members to cope with the increased demands for communication, cooperation and teamwork between functions and cultural groups. Doing business in a highly competitive environment makes the participants better prepared to cope with the ever-increasing pressure for better financial results, but also gives us researchers a possibility to study teams’ ability to use their full expertise in virtual multicultural context.

In other words, the experiment has value in terms of training and research. During the game, students will not only be confronted with the complexity of processes within a production company but also gain valuable team experience — virtual and multicultural — by playing the game in the small competitive groups.

B. Research Setting and Data Gathering

For comparative purposes four types of teams, each consisting of 3-4 members, are formed: mono-cultural & physically in one location, mono-cultural & physically dispersed, multi-cultural & physically in one location, multi-cultural & physically dispersed. Optimal number of teams in one simulation game is 8, which respectively thus allows a class of 24-28 students. A game setting in which teams communicate and negotiate with other teams (and in dispersed teams also within teams while making decisions) only via electronic media (e.g. e-mail, Skype), makes it possible to study the challenges and limitations of virtual communication.

Teams are observed by the researchers during their playing, and by making ad hoc surveys on the team processes if seen necessary. At different points of time their team work will be evaluated by conducting qualitative interviews on single issues of the process. Further, and even more importantly the participants are asked to write reflective essays where they report about their individual experiences.

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1 Figures resulting from article search on business related journals in Ebsco, Emerald and Abi inform databases since the year 2000.
2 Developed by PhD Timo Lainema, Senior Researcher, Turku School of Economics.
experiences during the game, key issues and critical incidents.

The first step will concentrate on students only but the data gained there will serve as a basis for designing the training setting for the managers. Basically, we see a lot of similarities between those two groups of society although we are aware that there are certain differences between them as well. In the business context, some issues might play a bigger role than among students: power, for example, is primarily a question of functions, financial resources and organizational structures and only secondly of issues such as better expertise, organizational skills, or personality (as it has been the case in former students groups). Age and gender have more influence in management than among students as in the group of the latter, there are no big age differences and gender equality is more or less executed at universities. Further, roles and functions are somewhat predefined in management teams whereas the self-managed student teams can choose task distribution and roles on their own. Similarly, leaders are most often predetermined and officially nominated in business. The students in our settings can feel free whether to nominate a leader or not.

But despite of those (small) differences, we see a chance for students to gain insight into real business settings, and an opportunity to create management training with relevant and appropriate tasks and issues.

C. Method

Especially the reflective essays but also the qualitative interviews were then analyzed by grounded theory method. Grounded theory provides the possibility to find out more about meanings, explanations, situational as well as contextual factors of social phenomena, and can be regarded as an appropriate method for cross-cultural research. Further, it seems especially helpful for our purpose as it aims at generating rather than testing theory and can be regarded as an adequate tool for combining theory and practice [14], [15].

The aim of our analysis is to detect different factors contributing to the processes and team dynamics in virtual multicultural teams. Following the suggested process for analysis [14] - [17], we read each paper thoroughly (“line-by-line-coding”) and filtered out statements suggesting issues influencing the students’ collaboration.

Descriptive key and descriptive key words (“codes”) emerged from relevant statements. Examples for those in our study were consensus, dominance, no answer, silent or small talk. Those codes which followed a similar pattern were then grouped into the same category (i.e. broader issues). The long list of upcoming codes was then reduced by means of deductive reasoning or via comparisons. In doing so, the long list of codes and the categories were compared to existing literature in order to find theoretical explanations and backgrounds.

Based on those influences and on challenges known in virtual teams in terms of previous studies and our tentative results, we have developed a VMCC training module in which the team members can acquire and train typical skills required in virtual teams, especially on virtual communication. As already mentioned above, we will take the multicultural composition into account as well, by composing the teams differently (monocultural, highly diverse in cultures, token members in monocultural teams, multicultural but dispersed etc.). Thus, we can also find out more about cultural differences and their impact on virtual team work, both within and between groups.

Role plays, mini-cases, discussions, simulation games as well as theoretical knowledge serve the students/participants to learn and train the abilities in question (e.g. cross-cultural negotiation, leading a virtual multicultural team, cultural sensitivity). In order to use them in practice and to verify their relevance, RealGame™ will be played again after the training session. After this first step, the same procedure will be used for companies who want to provide training to their virtual team members.

In the company context we will additionally use interviews of the key people in the company beforehand in order to identify particular problematic areas of knowledge sharing and cooperation. The VMCC -training module will then not only contain training for typical business skills required in virtual multicultural team work but also for special abilities in virtual and multicultural communication.

IV. TENTATIVE RESULTS

From a preliminary analysis on the first validation round and from former virtual team projects with students we have already some idea about what factors, and how, come up in virtual multicultural teams. By making them visible in the VMMC -training it is possible to enlighten to the virtual team members these factors’ role in the functioning and performance of the team. These issues are for example team leadership, decision-making, power distribution, trust, the role of language, technical problems and for sure issues associated with virtual and cross-cultural communication.

3 Former interviews with managers for different projects on multicultural and virtual teams as well as our own practical experience have revealed those issues to be different between managers and students. 4 In previous semesters, different virtual team projects have been conducted. In order to guarantee a comparability and a certain variety at once, different schools were involved (e.g. Richard Ivey School of Business, Canada; ESADE, Spain), different tasks had to be completed (e.g. case study, seminar paper, negotiation or creative task), and students were coming from different cultures. What remained the same was the task to write a 3-5 pages reflective essay at the end of the project reporting about critical incidents, experiences, learnings etc. The analysis of all those essays showed exactly the same factors coming up than in the RealGame™ simulation. The students in these virtual team projects came from very different cultures such as Canada, US, Czech Republic, Poland, Spain, France, and for sure Austria and Finland.
Interestingly, in former studies using totally different approaches and methods, exactly these issues have been pointed out as the most important elements for training designs for virtual teams as well [4], [11], [18].

Some statements taken from the students’ essays (from both the RealGame™ experience and former virtual team projects) shall provide some insight into the data and upcoming topics:

Concerning the issue of leadership, for example, a Finnish student wrote: “We did not have a leader because of the fact that none of us had bigger knowledge than the others.” or “Not having a leader made the game more interesting to play.” What was interesting, are the cultural differences in the wish to have a leader as well as in the role this leader should assume. Whereas Finns strive for equality and do not want someone to have more power than others in case there is no obvious reason for it, such as expertise (compare also to the power distance dimension [19] which is very low for Finland), other cultures rather demanded a leader who is often associated with autocratic decision making and authority. “The only thing why I participated was that we had an autocratic leader.” or “There was no real decision making process, there were too many in the group. A leader would be required.”

When it comes to decision making, cultural differences were again reflected in the statements of the students. Whereas the Finnish students strived for democratic and consensus-oriented decision making “In Finland we prefer democratic decision-making, an idea should be discussed with others.”, “Democracy is easy to achieve when everybody has equal status in a team.”, the Austrians wanted a “rational and effective”. Students from other cultures stated, for example “The US students decided quickly, the French analyzed much.” or “There are differences between Eastern and Western Europe: whereas Western cultures decide quickly, easily and in cooperation, the Eastern European countries have difficulty in using their skills.”. As decision making is also related to cultural differences [19], [20], the issue becomes more complex in a multicultural context.

In most of the students’ teams, power was said to be distributed rather equally. But reading their individual reflections, it came out that power distribution did not occur obviously but rather hidden in form of better linguistic skills “Being the only native speaker in our group I think that was my advantage in participation. Not only was the game written in English, but I could effectively communicate my ideas, and therefore they were used more often”, personality “One male was a bit pushy and arrogant in his statements and decisions. He tried to be a leader without even getting to know others.”, better organizational skills “As the Canadians were more organized and pushy, and we had initially rather loose ideas and more discussion, they always made clear suggestions and decided how to do the work.”, information sharing “She was sitting on her information […]. She has already written her part and left without having any conversation with the rest of us.”, or role distribution “The other reason was that I think after some time the guy enjoyed being the “CEO” of the team and therefore he did not want to change anymore.”

The importance of being a native speaker in the common language of the group rather than level of managerial skills as a reason for gaining real power in the team is surely an issue with utmost significance for MNCs.

Whereas role and task distribution has been an issue for almost all students coming from different cultural backgrounds, the Finnish students were again very democratic as reflected in “It also happened to be easy to divide duties between two, as one took orders and the other handled production with overall control being democratic but also efficient.”

Again it becomes apparent that all of these power issues showed also a cultural influence (Fischlmayr & Glaser, 2004).

Trust was mentioned as an important factor in virtual multicultural teams not only in our essays but also in literature [23] - [27]. “After we had played a while we started to make decisions more independently”, “A big issue plays trust between partners. When we cannot meet face to face we must have trust to people with who we work.” Again, cultural differences in the attitude towards trust are observable. For Finns (see first statement) the fact of being trusted by the own team, and to have a certain autonomy out of this trust seems more important than the question whether one can trust the other business partners, as was the most important question for the students of other cultures “I personally like to know the people who I negotiate with.”, “You also do not see your partner you do not see the non-verbal communication which is very important. You do not know if you can trust such a partner.” For Finns being honest is a naive prerequisite for doing business and therefore the other partner’s trustworthiness doesn’t need to be questioned.

Language has revealed to be a crucial issue in virtual multicultural teams as well. Not only did better linguistic skills influence the participation but also power distribution and as a consequence dominance and leadership. “The language was one of the reasons why some members did not participate so actively.”, “Now that I look back I think I should have been more sensitive to other people in our group in regards to their language.” or “For the first time ever I realized that there is a strong connection between language skills and the distribution of power within a

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6 Literature on power development supports the understanding that exactly these factors contribute to the creation and increase of power of persons or groups [28] - [31].
group." But also the communication style and the tools used for communicating has shown to be an issue in virtual multicultural teams. "It is important to speak 'the same language'. The Finns wanted formal and brief messages [...]." The Finnish are supposed not to like talking -- email is a good alternative where they do not have to talk." Interestingly, the Finnish students preferred e-mail to Skype and were not very happy to talk to the students sitting in Austria. "We tried Skype but the Finns were not interested. Thus, we had to communicate with them by e-mail, it was much more difficult." Maybe this was due to the fact that the Finnish group was composed of ICT students who are associated with being factual, giving short and precise information and disliking small talk. But again, we believe that also culture plays a role in this context. Among Finnish students the attitude was on fulfilling the tasks, concentrating on the game and skipping personal contact. "The Finns were not very enthusiastic to have a conversation with me." The other students, on the contrary, loved the possibility to talk to people from different cultures, liked the game and enjoyed small talk over Skype. "Maybe they saw the game more as an important virtual business project than a big chance to have multicultural contact with foreigners to learn something about their business habits and their way of interacting and communication concerning business decisions." They were rather surprised by the Finish students' behaviour. "I tried to have some personal contact and bringing fun into the game. But it seemed to that the Finnish student colleagues were a bit confused about my answers and questions." From our observations during the game we could make out that the Austrians questioned themselves what this silence might mean and talked about price dumping, no interest in their particular company, or in doing business at all. This confusion lead to wrong interpretations and perhaps also wrong reactions. The simple fact that Finnish students were not interested in talking, had certain insecurity in talking English with foreigners or were simply shy was only later on taken into account when reflecting about it in the essays. "So, the stereotype of the silent and calm Finns showed up somehow. I also noticed this stereotype when talking to them. My impression was, that they were rather distant, serious, and not very talkative."

Generally, communication has turned out to be one of the most crucial elements in virtual teams. The fact that different cultures try to talk to each other, makes the virtual constellation even more complex. Cultural differences are again seen as influencing teamwork across geographical distances more than anything else, which also became apparent in all the above mentioned points. Thus, cultural awareness, certain knowledge about "the others" in the team and better understanding turned out to be of utmost importance in virtual multicultural teams. Thus, the training design should first of all concentrate on creating this cultural sensitivity and only secondly on skills such as negotiation or conflict resolution as prior to all these skills, cultural understanding seems to play a role. This conclusion stemming from our preliminary results is also supported by studies, which point out the necessity to concentrate on the multicultural composition of the team members when it comes to offering training modules for virtual teams [4], [11].

For a kind of practical verification of the results, tests and comparisons of our students’ results with those of managers (by the use of qualitative interviews on their virtual team experiences) will be made. But even these results show us clearly what has an influence on the collaboration in virtual multicultural teams and thus, we can use these issues for our first training design.

V. SOME CONSIDERATIONS

Being aware of the possible limitations of using student data in research, we see here no such risk, but instead expect to benefit of it — not only in terms of getting more insightful research data, but also while developing the training modules. Our presumption can be argued by following: 1) Behavioral factors have proved to be similar in both student and business samples in further studies [33]. Furthermore the participants are 2) third year business students that have already participated business courses on an advanced level, 3) at least somewhat trained on intercultural issues and 4) familiar with most important theories and concepts of organizational behavior. Thus, we can use thematic interviews and expect to get more insightful reflection in the guided essays and can utilize this information in composing the training program for the MNCs. Das ist alles vom Abstract und das brauchen wir eigentlich hier nicht.

Further, using a simulation game might put some limitations to the setting. But here we again see no problems but the opposite: in the business game the decision making processes are similar to those in real life which cannot be reached in any other way. This serves as a test for the students’ ability to share expert information and utilize it in group decision making. The RealGame™ training thus prepares them for future business situations.

Summing up, we see those limitations as no limitations in here. Exactly this particular setting will give us the possibility to formulate practical implications, which would not be given with a different framework.

REFERENCES


7 View also [32] who point out the main difference between Finns and Austrians respectively other cultures. Whereas the latter are not comfortable with silence, it is exactly the opposite in Finland where people prefer silence and quietude over talking.


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