

Intercultural Communicative Competence in Virtual and Face-to-Face Teamwork: A Quantitative Analysis of Culturally Diverse Teams

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Purpose: Owing to the COVID-19 pandemic, the importance of virtual teams has increased during this period. There is a gap in current literature about the transformation of cultural diversity, how it appears in face-to-face interactions, and how it does in virtual teamwork. Global, virtual coworking requires different skills in order to communicate efficiently and understand the team members. This paper analyzes the importance of intercultural communicative competence in virtual and face-to-face teamwork.

Methodology: The research was conducted with a quantitative methodology to see the pattern regarding teamwork throughout culturally diverse teams. A total of 133 questionnaires were obtained for the data analysis. The collected data were then analyzed by using the IBM SPSS Statistics 27 program.

Findings: The results found that intercultural communicative competence is crucial in virtual teams. With better intercultural competence, cultural differences can be identified and considered during project management. However, in face-to-face teamwork, it seems to be more complex. Willingness to discover another culture and eagerness to understand fellow teammates makes a higher priority than being temporarily effective due to intercultural competence.

Conclusion: Intercultural communicative competence is a crucial workplace requirement in today's globalized world, regardless of branch, profession, or geographic location. The ability to understand people with different cultural backgrounds is an increasingly important competency both virtually and in face-to-face interactions.

Keywords: *Intercultural communicative competence, Culturally diverse teams, Global virtual teams, Virtual teams, Cultural differences*

1 Introduction

Regardless of their size and purpose, global virtual teams have become a preferred form of collaboration for successful organizations in today's global economy (Cathro, 2020; Paul et al., 2018; Jimenez et al., 2017; Neeley, 2015). Owing to the COVID-19 pandemic, the importance of virtual teams has increased. Global virtual teams (GVTs) consist of geographically, organizationally, and temporally dispersed members collaborating through information and

telecommunication technologies to perform tasks (Powell et al., 2004). GVTs are virtual teams whose members are separated by national borders, and they might have never met each other before (Pervez et al., 2022; Zwerg-Villegas and Martínez-Dí, 2016). A study by Culture Wizard (2020) highlights the latest trends in the global workplace; it shows that nearly 70% of multinational organizations' employees want to continue working from home at least half the time after the pandemic. 56% of the respondents worked full-time in the office before the pandemic, and

94% of these individuals wish to never return to that system. The increasing relevance of virtual teams has aroused interest in understanding their dynamics (Livermore, Van Dyne and Ang, 2022; Da Costa et. al, 2021; Cañibano, 2018; Ebrahim et al., 2009; Martins et al., 2004). GVTs differ from traditional collocated work teams mainly because of the distance between the members and their reliance on digital communication technology. Technology makes collaboration possible, but personal skills are needed to succeed, both as an individual and as a team. Working virtually is already a shift, but working in GVTs has many more difficulties; team members vary culturally and geographically. Studies indicate that consistent training of all team members positively influences the overall team performance, cohesion and trust, teamwork, and dedication to team goals (Van Rysse and Godar, 2000). However, insufficient training in virtual collaboration often leads to cooperation-related problems (Clark, 2020; Zemliansky, 2012). In order to develop the necessary skills and gain crucial knowledge before entering the labor market is the new demand of the youth. Universities are responding to these developments and are seeking to increase the degree of internationalization in their curricula (Heidemann and Søndergaard, 2022, Schworm et al., 2017; Çiftçi, 2016; Vriens et al., 2010) and are already using methods that can support students to improve their intercultural competence (Baber, 2021; Bao, 2020; Swoboda and Batton, 2019).

Intercultural competence is a crucial workplace requirement in today's globalized world, regardless of branch, profession, or geographic location. Multinational organizations operate across national or international borders and demand personnel to perform well during cross-cultural challenges (Mihalache et al., 2021; Alvarez, 2019; Lehmborg and Hicks, 2018; Taras et al., 2013; Dearsdorff and Bok, 2009). Communication with customers, colleagues, and business partners across international borders is a daily affair for most employees. Therefore, employing people who possess the ability to communicate effectively with people from different cultural backgrounds is an actual business value. Intercultural competence is a complex construct that involves more than one component (Dearsdorff, 2006a). Thus, internationalization strategies need to address the development of intercultural competence components in various ways. These could be established during the course of one's education, for example, course work, study abroad, and on-campus interaction with students from different cultural backgrounds; and improved within the organizations, with cross-cultural training, mobility, and diverse team settings (Ratten, 2023a; Palumbo, 2022; Baber, 2021; Tiwari et al., 2021; Barnes, 2020; Allen et al., 2019).

There is a gap in current literature about the transformation of cultural diversity, how it appears in face-to-face interactions, and how it does in virtual teamwork. The theoretical contribution is to develop new thinking about how

cultural diversity appears during virtual teamwork and the ways in which this cultural diversity differs from face-to-face teamwork. The practical contribution is to help to gain a better understanding of the GVTs and their cultural diversity. The current study focuses on intercultural communicative competence during virtual teamwork and face-to-face teamwork. The next section gives an overview of the related literature, which is followed by the methodology and then the summary of the results and the detailed analyses of these outcomes are discussed. Finally, in order to finalize the paper, the overall conclusion is highlighted and managerial implications are given, limitations as well as possible future direction of the research are mentioned.

2 Literature Review

2.1 Face-to-face and virtual teamwork

Bergiel, et al. (2008) note that the core elements of success are common in both face-to-face and virtual teams: trust, communication, and leadership. They emphasize that the virtual environment can alter the process through which these elements can develop. Computer-mediated communication operates with different rationality and requires different kinds of skills, abilities, and knowledge than face-to-face communication (Schulze et al., 2016). Virtual communication is routinely asynchronous; the time delay element can change the nature of collaborative efforts (Berry, 2011). Virtual teams can produce decision quality that is equivalent to face-to-face teams, but it needs more time. The quality of group decisions seems higher in face-to-face teamwork (Nosratabadi, et al., 2022; Urbig et al., 2020; Hearn et al., 2017) since through more interaction, same time presence in the office, trust can be gained easier, and with this, group decisions can be made more efficiently and frequently. Group leaders can be elected with a higher level of trust. Also, the group members can divide up the workload and trust each member to deliver their part. Group dynamics can benefit from this trust. In face-to-face interactions, team members, due to their greater resources, stimulate creativity, positive impact on comprehension, and development of interpersonal skills. Also, it is important to mention that virtual assessments are not without emotional content, nonverbal elements, or interpretation (Bilgetürk and Baykal, 2021; Carrier et al., 2015; Cheshin et al., 2011). Despite all of these, virtual teams and cooperation can enhance cultural understanding.

The altered nature of the communication process in online teamwork requires different skills and techniques to promote virtual team effectiveness. Reliance on physical dominance, body language, voice tone, and other non-verbal communication, which are common in face-to-face settings, are all "virtually" eliminated in many online exchanges. All of these points are influenced by culture, so

if these are indeed eliminated, then some cultural factors could be considered to be eliminated too. Without these elements, the dynamics of group development, leadership, and individual influence attempts could potentially shift. Hearn, et al. (2017) highlight the irony that the virtual world may be more skillful at tracking meaningful contributions than a face-to-face setting. This is mainly due to the fact that actual content, ideas, and specific information will be more likely to be prioritized in a virtual group. The pressure of visibility and individual dominance is eliminated; the focus is solely on the task. Virtual and physical visibility manifest themselves in entirely different ways since someone attending a face-to-face class might be perceived as contributing by their mere physical presence, even if that participation is relatively passive. Despite this, virtual participation is less passive by nature. Virtual group members wish to contribute to the project; they must log on, review the assignment, see the teammates' written comments, develop a contribution, and share it on their common platform so that the others can also review their material. The risk of uneven efforts is lower in this case. All of this work can not be avoided, as it may happen with face-to-face meetings when members, in many cases, only attend the meetings, but do not even contribute.

2.2 Intercultural communicative competence

In order to understand intercultural competence, as the fundamental requirement of multinational organizations from their members, especially from their leaders, the term "intercultural communicative competence" (ICC) needed to be analyzed. ICC has been defined by many scholars in recent decades (Sercu, 2022, 2002; Fantini, 2020; Kim and Ebesu Hubbard, 2007; Byram, 1995, Chen, 1987) from their research purposes. In the current research understanding, the meaning of ICC Deardorff's Delphi process was analyzed and used to put the related literature in order. Deardorff (2006a), using a Delphi process, asked intercultural scholars and higher education administrators to propose definitions of ICC, pool their views, and reach a consensus on critical fundamentals and proper assessment methods. In the literature of ICC, one of the most exhaustive and influential definitions is provided by Byram (1997), whose model incorporates holistic linguistic and intercultural competence and has clear, practical, and ethical objectives. According to the administrators, the Delphi study has proven that this definition is deemed most applicable to institutions' internationalization strategies. According to Byram, intercultural communicative competence is: "Knowledge of others; knowledge of self; skills to interpret and relate; skills to discover and to interact; valuing others' values, beliefs, and behaviors; and relativizing one's self. Linguistic competence plays a key role" (1997, p. 34). The second highest-rated definition was Lambert's

(1994) definition, which can be summarized as follows: "Five components: World knowledge, foreign language proficiency, cultural empathy, approval of foreign people and cultures, ability to practice one's profession in an international setting" (Lambert, 1994, as cited in Deardorff, 2004, p. 230). Both definitions emphasize the importance of self-knowledge and constant self-reflection during interaction with others. Language is needed but it is simply enough to interpret others' behavior and culture.

In the Delphi study, based on the data generated from intercultural scholars, the top-rated definition was one in which intercultural competence was defined as "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (Deardorff, 2006b, p. 247-248). From this point of view, knowledge encompasses cultural self-awareness, widening culture-related information, and fostering linguistic knowledge; skills refer to the ability to communicate across cultures; and attitudes include being open to and welcoming towards other cultures and having positive attitudes towards different cultures. Similarly, Chen and Starosta (1996, p.352) viewed ICC as "the ability to effectively and appropriately execute communication behavior to elicit a desired response in a specific environment." According to Fantini et al. (2001), ICC involves three abilities: the ability to develop and maintain relationships, communicate appropriately, and reach a mutual understanding with others. Xu (2009) defined ICC as the ability to communicate effectively and appropriately with people from different cultural and linguistic backgrounds. Lei (2020) points out that scholars have different descriptions; it can be concluded that ICC mainly involves awareness of different values, attitudes, and behaviors of others as well as skills that deal with them. ICC models and definitions all shows that ICC has many hard-to-grasp factors, such as cultural sensitivity and emotional adaptability. Context and individual attitude are important, and these influence knowledge and skills. Hence, face-to-face or virtual teams alter ICC since cultural specifics appear different in each case (Zhong et al., 2013; Deardorff and Bok, 2009; Hammer, et al., 2003; Wen, 1999; Lynch and Hanson, 1998; Kelley and Meyers, 1995; Taylor, 1994; Bennett, 1993).

In summary, group projects are an increasingly established element in virtual and face-to-face environments. Peer assessments in virtual environments may operate in a fundamentally different way than it does in face-to-face settings. Also, cultural diversity within these teams can be experienced differently since communication happens on a different platform, and these platforms operate in their own way and require other kinds of skills. The present paper hopes to shed light on the differences between face-to-face and virtual groups in the area of ICC. Therefore, the following hypotheses have been proposed:

H 1: Individuals with international experience tend to think they are 'open-minded.'

H 2: Self-defined 'open-minded' individuals score higher in the Intercultural Communicative Competence Questionnaire (ICCQ).

H 3: Individuals with high Intercultural Communicative Competence (ICC) tend to recognize cultural differences.

H 4: Efficiency is the highest priority (more important than getting to know each other) in virtual teamwork.

H 5: Members in face-to-face teamwork are eager to know each other better within the team, despite the cultural differences.

3 Methodology

The current paper contributes to the emerging literature on GVTs after the pandemic, focusing on the ICC within the teams. It was established, based on online survey data, studying ICC and analyzing it in GVTs and face-to-face teamwork. The research was conducted with a quantitative methodology to see the pattern regarding teamwork in culturally diverse teams (Margherita, 2022; Szüle, 2017). All of the collected data were analyzed by using the following listed statistical methods via IBM SPSS Statistics 27 program for Windows. This data-driven research is people analytics (Ratten, 2023b, p.91); the goal was to understand how attitude, knowledge, and skills can appear differently in face-to-face and virtual teamwork based on statistical data. For data collection, a survey was designed, titled 'Cross-cultural Management Challenges,' which included initial qualifying questions, Intercultural Communicative Competence Questionnaire (ICCQ), and questions regarding GVTs and face-to-face teamwork.

The current study is based on a three-part survey. It comprises 65 items, ten questions, and 55 statements rated on a 5-point Likert scale. The first part included initial eleven qualifying questions. Ten demographic and background-related questions, such as education, international experience, and the type of international experience. The last part of this section was a statement focusing on self-reflection regarding open-mindedness. The second part was dedicated to the ICCQ by Mirzaei and Forouzandeh (2013). This was used in order to investigate the ICC of undergraduate international business studies students. In the ICCQ, there are 22 items in total, and based on a 5-point Likert scale, 1 stands for strongly disagree, 2 for disagree, 3 for undecided, 4 for agree, and 5 for strongly agree. This part of the survey was based on Deardorff's (2006b, p. 254) pyramid model, which had three components: knowledge, skills, and attitudes. The 22 ICCQ questions can be organized into the following categories: twelve items belongs to the 'knowledge' component, these are all about cultural awareness and information; 5 items belong to the 'skills' component, related to communicative abilities such as listening, interpreting, and relating; the rest of the five items

were organized under the 'attitudes' component, that assess the characteristics of the sample regarding cultural issues such as being respectful, open-minded and tolerant towards diversities. In ICCQ, fifteen items can be coded; the other seven are reverse-coded (Saricoban and Oz, 2014). The third part of the survey included 32 statements regarding teamwork. Sixteen statements were standardized; the same statements appeared regarding virtual and face-to-face teamwork; this was important to see the two types of cooperation and teamwork through the same factors.

The present research started with ethical considerations before the questionnaire was administered. First, the permission of the university's ethical board was taken to collect data. Then, the English online questionnaire link was shared with everyone attending the Cross-cultural Management course. Information notes about the research and background information were given to the participants in order to inform them. A reminder was sent to them on a weekly basis for a duration of four weeks. Initially, the online questionnaire was shared with four individuals (two lecturers and two students) and pilot-tested to ensure the construct validity and the reliability of the instrument as well as to give feedback regarding the clarification, filling out time, and order of the statements. After checking, the survey was shared with the larger participant group. The anonymous questionnaire was disseminated among 167 students studying 'International Business,' and the language of instruction was English throughout the 4-year program. The participants completed the survey and were initially informed about the study's goal. Data was collected using the online survey software known as Qualtrics. It took approximately ten minutes to fill out the questionnaire. The incomplete questionnaires were eliminated. In the end, out of 167, 166 filled out the questionnaire, and 133 questionnaires were obtained for the data analysis. The data was collected in May 2023. The participants were, on average, 20 years old, and 62.4% were female. 67% were Hungarian; the remaining individuals came from a variety of countries in Asia 26% (China, India, Kazakhstan, Turkey, Russia), Eastern Europe 3% (Romania, Slovakia), Western Europe 2% (Spain), and Africa 1% (Ghana), North America 1% (Canada). In the CCM course curricula, it was stated that the attendees have two projects during the Spring semester, which have to be managed in teams of five-six. The first project is virtual teamwork; at the beginning of the semester, since there is no need for physical attendance, every group manages their task virtually. The second project includes several in-class materials, and everyone has to attend face-to-face classes and group meetings. Due to this setting, everyone gains experience in both GVT and face-to-face teamwork. This setting gave a foundation on which the survey could be built.

4 Results

In order to have a better understanding of the importance of international experience, the kind of international experience (professional, private), and the effect of this on cultural open-mindedness (H1), the analyses started with crosstabs. The question which focused on self-evaluation regarding open-mindedness was analyzed in the survey with questions regarding international experience. Out of 133 individuals ($\chi^2 = 1,814$, $p=0.404$), 99 have international experience; these individuals were analyzed further to see if they judge themselves differently, considering they have international experience. 53% of these 99 individuals had both private (vacation, family visits) and professional (education, work, internship) experience abroad. In this case, there was no significant difference ($\chi^2 = 2,768$, $p=0.597$). 2 individuals rated themselves as not open-minded (1-strongly disagree on a 5-point Likert scale), these were eliminated, and the analysis was done with only 97 individuals who rated themselves as open-minded (either 4-agree or 5-strongly agree). Even with a sample that consists of 97 individuals who have had intentional experience (either private or professional or both) and rated themselves as open-minded (agree or strongly agree) still ($\chi^2 = 2.237$, $p=0.327$) somewhat stronger, but no significant effect can be seen, international experience has no effect on the level self-evaluated open-mindedness.

Non-parametric, Mann-Whitney U test was conducted to analyze ICC levels and self-defined open-mindedness. The result shows ($U=1736$, $p=0.220$) that there is not enough evidence to conclude that only the open-minded individuals (4- agree, 5- strongly agree) score high on

the ICCQ. Out of 133 individuals, 131 were included in this test, and two individuals were excluded since they rated themselves as not being open-minded (1 strongly disagreed). In the Mann-Whitney test, the highly rated open-minded individuals were analyzed further. Almost double of those that agreed (48 individuals scored 4, 'agree') individuals were 'strongly agreeing' (83 individuals scored 5, 'strongly agree'). However, among these two groups, still, no significant difference can be identified.

Analyzing the ability to see and identify cultural differences in face-to-face teamwork, the results show that individuals do not see cultural differences within the team. Most of the responders, out of 127 individuals, 65 did not see or were not able to identify cultural differences. Of the included 133 individuals, two evaluated themselves as not being open-minded (1- strongly disagree). Therefore, they were not included further in the analyses. Also, analyzing the ability to see cultural differences, four individuals saw cultural differences and also scored highly in the ICCQ (5 – strongly agree) and were considered to have intercultural competence. After excluding them from the analyses, non-parametric tests were performed. Kruskal-Wallis H test result indicated ($H=2.444$, $p=0.485$), still not enough evidence that individuals working in a team and having face-to-face interaction can see or be able to identify cultural-related differences. A Kruskal-Wallis H test was conducted, including the individuals scoring high in the ICCQ (4 individuals with five as average ICCQ score), results are significantly different ($H=7,722$, $p=0.102$), but still, no cultural-related difference can be seen by the individuals in face-to-face teamwork.

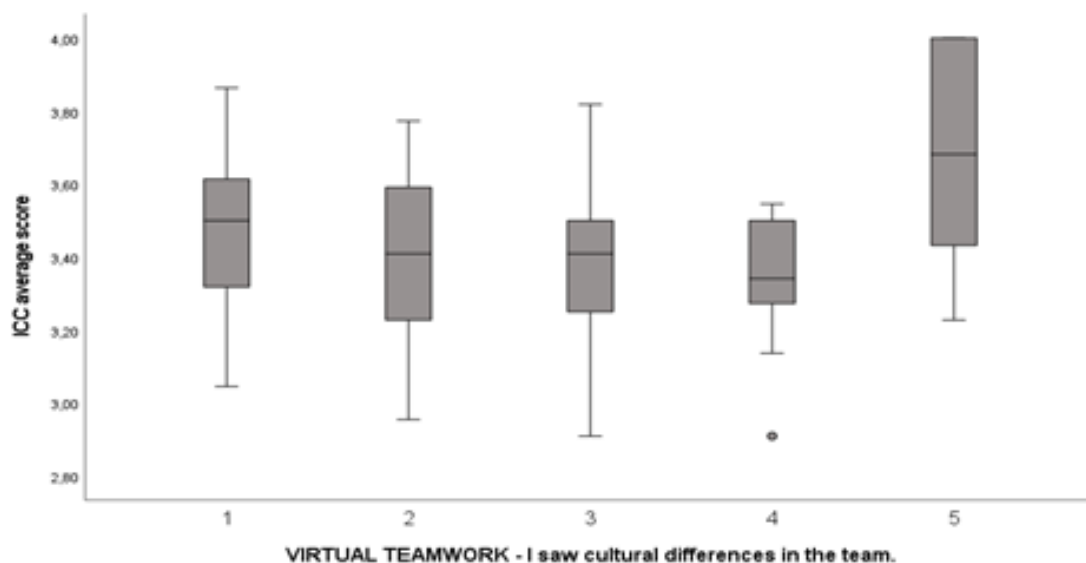


Figure 1: ICCQ average scores by identified cultural differences during virtual teamwork

Table 1: Virtual teamwork - Rotated Component Matrix

VIRTUAL TEAMWORK (VTW)	Efficiency	Active participation	Getting to know each other
Every team member participated in most of the team meetings.		,874	
I think every member of our team was able to contribute to the assignment we had.		,865	
We were efficient with our time.	,880		
I think communication was easy.	,817		
I got to know my teammates better (professionally) during our project.			,915
I got to know my teammates better (personally) during our project.			,783
Extraction Method: Principal Component Analysis. - Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Table 2: Face-to-face teamwork components

FACE-TO-FACE TEAMWORK (FFTW)	Getting to know each other	Efficiency	Cultural awareness
Every team member participated in most of the team meetings.		,924	
I think every member of our team was able to contribute to the assignment we had.		,902	
I saw cultural differences in the team.			,858
Some cultural differences made it easier to work efficiently together. (It had an impact on time management, the result/outcome of the assignment, and misunderstanding during communication).			,861
I got to know my teammates better (professionally) during our project.	,927		
I got to know my teammates better (personally) during our project.	,907		
Extraction Method: Principal Component Analysis. - Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Table 3: Hypothesis testing result

Hypothesis	Relationships	Results of hypotheses
H1	International relationships and self-defined open-mindedness	Not supported
H2	Self-defined open-mindedness and ICCQ scores	Not supported
H3.	ICCQ and recognizing cultural differences (Face-to-face; Virtual teamwork)	Not supported –FFTW; Supported – VT;
H4	Virtual teamwork and efficiency (as a priority)	Supported
H5	Face-to-Face teamwork and bonding (as a priority)	Supported

Differentiation can be made between face-to-face teamwork and virtual teamwork regarding seeing cultural differences and ICCQ average (H3). Virtual teamwork analyses show significantly different results (Figure 1). 8 individuals with very high intercultural competencies were excluded in order to see the majority of the group and focus on their data. Altogether 123 individuals were included in further analyses. The remaining 123 individuals are able to see cultural differences while working virtually together with their teammates ($H=8,199, p=0.042$). In the Kruskal-Wallis test, if the individuals with the highest ICCQ average are all included, eight individuals with a '5' ICCQ average score ($H=13,145, p=0.011$) altogether 131 individuals, the results show even more significant value. The two groups' ICCQ average and virtual teamwork – seeing cultural differences show statistically significant value in both cases, including and excluding the eight individuals with the highest ICCQ average.

In order to have a better understanding of each case (VTW and FFTW) and understand the reasons behind being able to see cultural differences, factor analyses have been done. In factor analysis, a rotated component matrix represents the relationships between the observed variables and the extracted factors after a rotation procedure has been applied to enhance interpretability. The values in the rotated component matrix, often referred to as factor loadings, indicate the strength and direction of the relationship between each variable and each factor. The high factor loadings of the statements in the rotated component matrix indicate their significance as indicators of VTW and FFTW and their strong association with the extracted factors in the research (Table 1, Table 2). The components have been analyzed further, and in each case, connections and underlying similarities and focus have been studied (title of the components). In virtual teamwork, "VTW efficiency," and in face-to-face teamwork, the "FFTW getting to know each other" component is the main priority (H4 and H5).

5 Discussion

5.1 Intercultural competence and open-mindedness

Results of the current analyses seem to weaken the fact that international experience tends to give a better overview and more complex understanding of another culture. The cultures that differ from one's own can not be understood only by having private or professional experiences abroad. The current research shows that individuals evaluated themselves as open-minded regardless of their international experiences. This can be due to the globalized world we are now living in. In multinational organizations, or even during their studies, individuals can

encounter others with different cultural backgrounds. Understanding another culture needs an open attitude toward the surroundings, knowledge, and skills rather than time spent abroad (Mihalache and Mihalache, 2022; Deardorff, 2006b). Surely international experience can support one with tools and information that can be used in cross-cultural challenges. However, one's own attitude, such as tolerating other cultures, approaching someone with a different cultural background with respect, and being open to discover and being curious about another culture, seems to be more important. Also, knowledge occurs to be crucial. Speaking foreign languages and gaining information about another culture and using this correctly. Skills, such as careful listening and interpreting this information or analyzing a situation and relating to that. Self-awareness, openness, and tolerance towards other values and cultures can support open-mindedness, and it does not depend on international experience.

International experience can be a great chance to improve skills and gain knowledge, but it needs open-mindedness already to have that attitude and willingness that it requires. Evaluating one's own openness has no connection with international experience. Out of 133 individuals, 97 found themselves open-minded (4-agree or 5- strongly agree), and every one of them has had international experience; 54 of them had both (private and professional). There was no connection between these. 36 individuals had no international experience, and their self-evaluation showed no significant difference from the 54 individuals who had both kinds of international experience. Every participant was studying International Business in English. The individuals not spending time abroad rated themselves the same way as the ones with lots of international experience. Speaking a foreign language, working in diverse teams, and studying international business give them the same chances to improve their open-mindedness. International experience can help one learn more and offers more chances to help one with sharpening skills. However, these cannot be gained without willingness. Open-mindedness is a needed requirement that can support gaining knowledge and improving skills during a stay abroad, but only international experience cannot enhance open-mindedness.

According to current research results, open-mindedness is crucial, but there is no evidence that self-defined open-mindedness can be related to high ICCQ scores. Being open-minded does not mean having intercultural competence (H2). Self-defined open-mindedness does not imply that an individual is able to understand a different culture and communicate efficiently with someone with a different cultural background. ICC is a complex competence that rather consists of knowledge, skills, and willingness. Similarly to the international experience (H1) and the implementation of the learning point of such an experience, ICC does not solely rely on open-mindedness. Self-evaluated open-mindedness is the attitude of

the individual through which knowledge and skills can be gained and improved (Deardorff, 2006b; Lambert, 1994). Self-defined open-mindedness needs constant self-reflection and self-awareness. These factors can improve ICC. Appropriate and effective communication across cultures requires language knowledge, culture-related knowledge, and the skill to discover and interpret (Lei, 2020; Xu, 2009). Open-mindedness does not include these naturally. Only two individuals evaluated themselves as not being open-minded. Despite this, everyone scored high in ICCQ.

5.2 Cultural Diversity in virtual and face-to-face teamwork

Research results show that in VTW, team members prioritize managing their time effectively during the teamwork process and focusing on communication within the team to remain smooth and without any significant challenges. This factor indicates that ease of communication and exchanging ideas are considered to be crucial. The common point in both is 'VTW efficiency' in the flow of information. The nature of VTW gives the members a high level of autonomy, so they can individually work and share their part with the team. This way, it contributes to the project (Nurfitriansyah, et al., 2023; O'Boyle et al., 2016). The second priority was the level of active participation and engagement of team members in team meetings. It implies active participation and involvement of all team members in team meetings that are considered important for effective intercultural communication and collaboration. Also, the research results highlight the perception that each team member was able to make meaningful contributions to the assigned task. It suggests that the perception of equal contributions and involvement from all team members is important in VTW. The common point among these statements is that these factors refer to the importance of 'VTW active participation.' This component is also strengthening the efficiency component. Every member of the team has to participate, and the workload is divided up equally and can be monitored transparently. On the list after 'VTW efficiency' and 'VTW active participation' in third place comes 'VTW getting to know one's teammates,' the need of the team members to gain a deeper understanding of each other's professional backgrounds, skills, expertise, and work-related aspects during the project. It suggests that the process of enhancing professional knowledge and understanding among team members is essential. In addition to developing personal connections, understanding, and familiarity with teammates on a more individual or on a more personal level during the project.

These results confirm that in VTW, teammates see cultural differences since 'VTW getting to know each other' is not the top priority. Cultural differences occur and have not been addressed or studied; it remains. The most im-

portant during VTW is to do the task and to communicate about the issues that can be directly linked to the joint project. Individual contribution is more transparent than it can be during FFTW. The group can keep track of every member and all their input (Hearn et al., 2017). Meetings can be recorded, participation can be checked, and the workload can be divided and kept track of without any further effort. Every step of the common project happens virtually and can be checked anytime. The joint effort of the group is to focus on the task and accomplish the common goals. However, individuals working together, even from a far distance, can not ignore cultural specificities. Every type of communication, virtual or face-to-face, consists of the content and non-verbal element and the interpretation of these (Carrier, et al, 2015). Therefore, different cultural backgrounds as well as habits and behaviors can not be overseen. Due to these elements, cultural differences can come to the surface, and joint projects can be affected by these. In VTW, effectively working together is more important than getting to know each other within the team because cultural differences remain without even addressing them.

In FFTW getting to know each other is ranked higher (top priority) and hence more important in real-life, face-to-face settings than it occurs in virtual settings. 'FFTW Efficiency' is only in second place, and 'FFTW cultural awareness' is third. In FFTW, team members signify that the awareness and acknowledgment of cultural diversity within the team are considered important. FFTW-related statements in the survey highlight that certain cultural differences positively influenced the team's ability to work efficiently together. It acknowledges that due to these cultural differences, teamwork has been improved. This points out the crucial role of cultural awareness; furthermore, it suggests that the recognition of cultural diversity can actually be an asset to the team (Pervez, et al., 2022). Getting to know each other and building trust is complex in culturally diverse teams. It requires not only communication but understanding of body language, facial expressions, and tone of voice. (Cheshin et al., 2011). Spending real-life time with teammates can improve understanding of each other, and in FFTW, since this is a priority. Therefore, it comes naturally with time. Core elements such as trust and communication are important in both FFTW and VTW (Bergiel, et al., 2008). In FFTW, there are more chances to gain trust, and there are more impressions that can be studied in order to interpret them.

On the other hand, results showed that in FFTW, members could not see cultural differences regardless of the ICCQ scores (except the individuals with the highest scores). This can be understood in a way that culturally diverse teams see cultural differences and try to understand them from the beginning of the common project. Shortly after all of these were addressed and vanished. In FFTW, getting closer to each other and gaining more informa-

tion about the teammates are more of a critical factor than getting the task done. Also, cultural differences are considered advantageous and used as an asset in the project. Cultural awareness is promoted within the group, and this is the attitude throughout the joint project. These factors make the FFTW more understanding of the cultural factors. Being able to see the cultural differences regardless of the individual's ICCQ score. Within the team, all of the cultural factors are paid attention to since getting familiar with each other is the overall goal. Therefore, cultural background and personal information, habits, and behaviors are all seen and understood and not considered to be 'cultural differences.' Despite the VTW in FFTW, there is an eagerness to understand these in order to be a source of innovation and solutions for the joint project. Real-time interaction gives a chance to build relationships and, through them, have a community so that the individuals can belong to their team. This emotional bond and individual satisfaction seem to affect the individual's performance and, over time, the team's performance.

6 Conclusion and recommendation

This paper aims to study intercultural competence in virtual and face-to-face teamwork. The survey was designed for International Business students in order to have a better understanding of their intercultural communicative competence during their virtual and face-to-face teamwork projects. The results show that international experiences do not affect open-mindedness, and self-evaluated high scores do not correlate with actual intercultural competencies. However, almost every individual has international experience. Statistically, there is no significant connection between open-mindedness, international experience, and intercultural competence. It seems it is more about the individuals' attitude and willingness to discover and understand other cultures. During virtual work, efficiency is the top priority; and behaviors and habits due to different cultural backgrounds can affect teamwork. Addressing these is not a priority but a factor that has been identified and considered to be part of common projects. Due to the transparency of every meeting, individual input and joint efforts can be tracked. Short-term projects can be carried out quickly, and checking points can be used to maximum efficiency. During face-to-face teamwork, getting to know each other and understanding the cultural specificities are more crucial than being effective and submitting the project. Cultural awareness is promoted, individual engagement is supported, and learning from each other seems more interesting within groups. This way, long-term, complex, and culturally challenging projects can be carried out successfully. During virtual teamwork, effectiveness, and equal workload distribution are more critical; these are followed by the need to know each other's cultural back-

ground within the team in order to be even more efficient with the sources. Intercultural communicative competence is seen as a tool that can enhance this knowledge. In face-to-face teamwork, gaining trust and becoming familiar with the other's culture is considered an asset from which the common project can benefit. Intercultural communicative competence does not seem to be needed to gain that knowledge.

The current research arrived at the findings using inputs from 133 respondents, and future researchers should collect more input from experienced professionals with significant international experience from a broader perspective. Also, continuing with the qualitative method and conducting interviews and focus-group interviews can give more information to understand the hidden reasons. Future researchers can also assess potential differences between teams only virtually working together and face-to-face or hybrid teams, focusing on team dynamics or cultural awareness.

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Medkulturna komunikacijska kompetenca v virtualnem in osebnem sodelovanju: Kvantitativna analiza kulturno raznolikih ekip

Namen: Zaradi pandemije COVID-19 se je povečala pomembnost virtualnih ekip. V trenutni literaturi obstaja vrzel glede preoblikovanja kulturne raznolikosti, kako se ta kaže v osebnih interakcijah in kako v virtualnem timskem delu. Globalno virtualno sodelovanje zahteva različne veščine za učinkovito komuniciranje in razumevanje članov ekipe. Ta članek analizira pomen medkulturne komunikacijske kompetence v virtualnem in osebnem timskem delu.

Metodologija: Raziskava je potekala z uporabo kvantitativne metodologije za preučevanje vzorcev v timskem delu kulturno raznolikih ekip. Za analizo podatkov je bilo pridobljenih 133 anket. Zbrane podatke smo nato analizirali s programom IBM SPSS Statistics 27.

Ugotovitve: Rezultati kažejo, da je medkulturna komunikacijska kompetenca ključna v virtualnih ekipah. Z boljšo medkulturno kompetenco lahko prepoznamo kulturne razlike in jih upoštevamo pri upravljanju projektov. Vendar se zdi, da je v osebni timski delu to bolj kompleksno. Pripravljenost za spoznavanje druge kulture in želja po razumevanju sodelavcev sta pomembnejši od začasne učinkovitosti zaradi medkulturne kompetence.

Zaključek: Medkulturna komunikacijska kompetenca je ključna zahteva delovnega okolja v globaliziranem svetu, ne glede na panogo, poklic ali geografsko lokacijo. Sposobnost razumevanja ljudi z različnimi kulturnimi ozadji je vedno pomembnejša kompetenca tako v virtualnih kot osebnih interakcijah.

Ključne besede: Medkulturna komunikacijska kompetenca, Kulturno raznolike ekipe, Globalne virtualne ekipe, Virtualne ekipe, Kulturne razlike