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The Effect of the Leader's Multicultural Experience and Cultural Intelligence on Team Effectiveness

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Dissertation written under the supervision of PhD. Patrícia L. Costa

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Abstract

Title

The Effect of the Leader's Multicultural Experience and Cultural Intelligence on Team Effectiveness

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The purpose of this dissertation is the study of the effect of multicultural experience and cultural intelligence on team effectiveness through leadership functions. Data was collected from 51 teams from real world companies and from a laboratory study. Results show that the leader's cultural intelligence has a statistically significant effect on his leadership functions. Additionally, results indicate that different leadership functions mediate the effect of cultural intelligence on team effectiveness. Multicultural experience, on the other hand, does not show a statistically significant relationship with leadership functions, nor with the effectiveness of the team.

Key words: cultural intelligence, leadership functions, multicultural experience, teamwork

Resumo

Título

O Efeito da Experiência Multicultural e Inteligência Cultural do Líder na Eficácia da Equipa

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O objetivo desta dissertação é o estudo do efeito da experiência multicultural e inteligência cultural na eficácia de equipas através de funções de liderança. Foram recolhidos dados de 51 equipas provenientes de empresas reais e de um estudo de laboratório. Os resultados sugerem que a inteligência cultural do líder tem um efeito estatisticamente significativo nas diferentes funções de liderança. Adicionalmente, os resultados deste estudo mostram que as diferentes funções de liderança medeiam o efeito da inteligência cultural na eficácia de equipas. A experiência multicultural, por sua vez, não demonstra uma relação estatisticamente significativa com as funções de liderança nem com a eficácia de equipas.

Palavras-chave: experiência multicultural, funções de liderança, inteligência cultural, trabalho em equipa.

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1. Introduction

1.1. Purpose of the study

This study focuses on the effects of multicultural experiences and cultural intelligence of leaders on their ability to work with their teams more effectively. The main goal of this study is, therefore, to assess to what extent do traveling, studying or working abroad, or simply coming across challenging culturally diverse settings and people enhances the leader's ability to effectively lead his subordinates. Another purpose of this dissertation is to see whether this experience is as important for leaders as a specific competence like cultural intelligence, or if one surpasses the other in better predicting leadership and team effectiveness.

1.2. Importance of the study

The use of teams inside organizations has increased, and research is progressively focusing on how leadership can influence the teams' success (Morgeson, DeRue, & Karam, 2010). Teams are considered to be crucial for organizational success (Martin & Bal, 2015) and it is clear that most organizations organize their work on some sort of team-oriented processes (Morgeson et al., 2010).

The importance of this study also relies on recent studies about the relevance of multicultural experience and/or competencies for effective task performance. As such, studies show that having greater multicultural experience relates positively to a higher level of openness and flexibility of the mind (Narvaez & Hill, 2010). It has also been shown that cultural intelligence has a positive relation to task performance in culturally diversified environments (Ang et al., 2007). Increasing global competitiveness and pressures for growth overseas have put companies in a position that demands managers who are able to lead culturally diversified teams in respect to member ethnicity, nationality, working habits, etc. As a consequence, companies are nowadays requesting for global leaders that show specific leadership competencies that impact performance and effectiveness outcomes in culturally diverse business environments, such as cultural intelligence (Groves & Feyerherm, 2011).

Therefore, in this fast-moving, globalized, culture mixed environment that both multinationals and national companies work in, it would be interesting to evaluate at what point the team leader's multicultural experience and/or competence could be a tool for higher team work effectiveness at the job, whether working with multicultural teams or not.

Additionally, the increasing number of exchange students adds to the importance of this study (European Commission, 2015). As future applicants for the job market, students are motivated to participate in exchange semesters, as they see this as a positive advantage to their academic curriculums. In fact, data from the European Commission reveals that participating in an exchange program such as “Erasmus+” reduces by 50% the risk of long-term unemployment one year after graduation (European Commission, 2015).

Indeed, while applying for internships, personal experience has shown me that companies do look for applicants that demonstrate a number of international experiences, believing that this will add to the person’s capabilities to adapt, be flexible, to contribute with different solutions, among others.

1.3. Research Questions

The main research question that motivated this dissertation was: How do the multicultural experience and/or cultural intelligence of a leader relates to the effectiveness of its subordinate team? Additional sub-questions emerged as the literature about these subjects was collected:

1. Can a leader who has gone through significant international and multicultural experiences enhance his leadership skills and functions?
2. Is it possible that by having greater multicultural experiences, a leader is able to lead in a way that his teams are more effective?
3. Might it be that a leader with greater cultural intelligence is able to show superior leadership skills and functions?
4. Is it possible that a leader with a higher score of cultural intelligence leads in a way that his teams are more effective?

2. Literature Review

2.1. Leadership in Teams

2.1.1. Teams and teamwork

In order to fully understand the processes behind team leadership, it is essential to clarify the concepts of team and teamwork. What distinguishes team leadership models from traditional leadership models is the central emphasis on the team aspect of the processes, hence the importance of a clear understanding of the nature of team functioning (Morgeson et al., 2010).

For the purpose of this study, we consider a **team** to be ‘two or more individuals with specified roles interacting adaptively, interdependently, and dynamically toward a common and valued goal’ (Salas, Sims, & Burke, 2005, p. 559). The specific interactions needed for **teamwork** to occur are what distinguish it from individual work. Each member takes on a different role that represents critical contributions to the collective task and team goal achievement (Zaccaro, Rittman, & Marks, 2001). Teamwork involves ‘recurring cycles of mutually dependent interaction’ (Morgeson et al., 2010, p. 3), and the level of interdependence required among team members for proper and effective teamwork involves coordination and synchronization (Zaccaro et al., 2001): members need not only to exchange information and knowledge on a continuous basis, but to oversee and evaluate their own management of efforts, taking on measures of adjustment to answer to coordination flaws or mistakes (Salas et al., 1992, cit. in Zaccaro et al., 2001). In sum, for teamwork to be successful, the team needs to (1) identify the most suitable individual contributions for each member, and (2) design a strategy for these contributions to be merged in an integrated effective team action (Hinsz, Tindale, & Vollrath, 1997).

The aforementioned goal-directed interaction cycles of teams are divided in the literature into two distinct phases: the transition phase and the action phase (Marks, Mathieu, & Zaccaro, 2001). The transition phase involves the estimation or preparation of activities intended to succeed on team goal attainment, while the action phase implicates the work activities per se that contribute to achieving those goals. Teamwork or collective (team) action occurs when teams continually rotate and cycle through these two phases (Morgeson, et al., 2009). When working in teams and rotating between the transition and action phases, it is common to face challenges that may originate inside the team, the organization or the

environmental framework in which the team is incorporated (Morgeson et al., 2010). Challenges pose as barriers to goal achievement and may threaten team viability (the willingness among members to continue to work with that team in the future). Because they are intrinsic to each team, challenges generate unique needs within the group, which, in order to be satisfied, demand an adequate management of actions (Morgeson et al., 2010).

Related to this challenges' addressing need, specific processes occur in both the transition and action phases (Marks et al., 2001). Transition processes are about planning the activities that will lead to team goal accomplishment, hence these include: a process of mission analysis, that will guarantee the recognition of the team's main tasks and the availability of resources to execute them; a process of goal specification, which comprises acknowledging and prioritizing each goal and sub-goal that will lead the team to its mission; and a process of strategy formulation and planning, which involves planning and structuring the course of action the team will take in order to accomplish its mission (Marks et al., 2001). Action phase processes include: monitoring progress toward goals, which refers to the tracking and communication of the tasks and the progress concerning goal attainment; systems monitoring, which involves the process of tracking the resources and the environmental circumstances that influence the team's mission accomplishment; team monitoring and backup, which refers to helping other team members achieve their tasks (either through verbal feedback, coaching, or actual behaviorally assistance); and coordination activities, which refers to the process of organizing and arranging the sequence of interdependent, simultaneous actions (Marks et al., 2001).

Transversal to both the transition and action phases, Marks et al (2001) point out three interpersonal processes used by teams to manage interpersonal relationships, that represent the groundwork for the effectiveness of the other processes: conflict management processes, which are crucial when working in a team (given the high probability of interpersonal conflict arising), involve both proactive and reactive conflict management. Proactive conflict management is about preventing, controlling or guiding the conflict before it occurs, while reactive conflict management refers to solving interpersonal disagreements; motivating and confidence building processes refers to the creation and maintenance of a sense of collective confidence and motivation that effectively will lead the team to its mission; and affect management processes, which is about regulating team member's emotional levels.

These processes (transition, action and interpersonal) focus on satisfying team's needs with the main goal of improving team effectiveness. The person that takes on the responsibility of addressing the team's needs (i.e. to make sure that team processes are successful) can be seen as the leader, whether he/she is part of the group or an outsider (Morgeson et al., 2010).

Team effectiveness is attained when a team is able to achieve or exceed the results and objectives expected and defined at the transition phase (Aubé & Rousseau, 2011). In organizational contexts, team effectiveness is complex and hard to be assessed, since most tasks do not have a single right answer, nor are easy to validate quantitatively (Hackman, 1983). Evaluating team effectiveness is, therefore, not an easy undertaking. Nevertheless, Hackman's (1983) proposal for the study of team effectiveness has been the baseline for the study of team effectiveness until now. For the purpose of this study, we will be basing team effectiveness assessment on the three indicators proposed by Hackman: The first and more tangible one (i.e. team performance), is the actual output of the group and how well it fits the performance expectations of the people who review it. The second relates to how the social processes used during teamwork and reflects its willingness to work together as a team in the future (i.e. team viability) (Hackman, 1983). The third indicator has to do with the level of satisfaction of the teamwork experience for each member. Effective teamwork happens when its members' experience satisfies rather than frustrates them (Hackman, 1983).

2.1.2. Functional Leadership

Zaccaro et al.'s (2001) conceptual framework of functional leadership explains the influence of leadership on team effectiveness through 'their effects on four sets of team processes: cognitive, motivational, affective, and coordination' (p. 453). This functional approach to leadership suggests that leaders are to (1) diagnose any problems or issues that could potentially keep the group from attaining its goal, (2) come up with a plan of suitable solutions for those issues, and (3) put those solutions into action having in mind the complex social environment associated with them (Zaccaro et al., 2001). This definition is distinct from others because it highlights leadership as a connecting responsibility that links the team to its wider, complex environment. As so, and because teams usually deal with problems that originate in their environment, leaders need to be aware of situations or incidents coming from outside the team (Zaccaro et al., 2001).

Another aspect that distinguishes functional team leadership is related to the selection of the path to solving a specific question. Teams that have specific guidelines or face actions that are previously specified do not need the leader to intervene. The leadership role should intercede when the team faces an issue that has several different solution routes, or when vital solutions need to be planned and implemented in a specific complex domain. Additionally, functional leadership is not about acting on a certain set of behaviors, but acting on generic reactions that vary according to the situation or problem the team is facing (Zaccaro et al., 2001). Hence, there is a switch in stressing ‘what leaders *should* do [to] what *needs to be done* for effective performance’ (Hackman & Walton, 1986, p. 77, cit. in Zaccaro et al., 2001). In sum, the leader’s goal is ‘to do, or get done, whatever is not being adequately handled for group needs’ (McGrath, 1962, p.5, cit. in Morgeson et al., 2010).

2.1.3. Team Leadership Functions

Past research on functional leadership has focused on team needs and not given much attention to the specific leadership actions or behaviors that will better satisfy those needs (Morgeson et al., 2010). Based on the taxonomy of team processes by Marks et al. (2001), Morgeson et al., (2010) aim at understanding explicitly how team needs are satisfied. Their work focuses specifically on ‘the things that need to be done for the team to meet its needs and function effectively’ (2009, p. 5).

Accordingly, during the transition phase, teams must structure, plan and evaluate their work in order to effectively reach team goals. This phase requires the execution of essential leadership functions, such as (1) composing the team, guaranteeing it is composed by a well-fitted group of people; (2) defining the team’s mission; (3) outlining the team’s expectations and goals; (4) structuring and organizing member’s roles and obligations; (5) preparing and training the team to guarantee effective performance from all members; (6) making sense of events happening within and outside the team; and (7) providing feedback to the team members (Morgeson et al., 2010).

When it comes to the action phase, the team is concerned with working on specific activities that will help the group reach its goals. Likewise, there are some leadership functions that are critical to this cycle phase, such as (8) monitoring the team’s performance; (9) managing the frontiers between the work team and its broader, organizational context; (10) challenging and stimulating the team to progress; (11) working together with the team on whichever task needs addressing; (12) finding solutions for problems that may arise; (13)

providing the necessary resources for task performance; (14) motivating a self-management system within the team; and (15) supporting a positive and constructive team social climate (Morgeson et al., 2010), a function that seems to be related to the important interpersonal processes mentioned by Marks et al. (2001) and therefore, that may be applied to both the transition and action phases.

Several studies corroborate the relevance of the above leadership functions in the path to achieving team effectiveness ((Amabile et al., 2004), (Henderson & Lee, 1992), (Sivunen, 2006), (Kim, Min, & Cha, 1999), (Druskat & Wheeler, 2003)). For instances, Amabile et al.'s (2004) study showed that establishing clear, challenging objectives, and rewarding members when these are achieved are important leadership behaviors that enable team creativity. Henderson and Lee's (1992) study showed that allocating work roles and structuring clear teamwork procedures where leadership behaviors related to team efficiency, speed and effectiveness. Taggar (2002) discovered that providing feedback and other performance management stimulated team processes in a way that results in greater team creativity. Providing feedback also relates to a greater team commitment, as Sivunen's (2006) study showed. Kane et al.'s (2002) study showed the importance of monitoring toward goal achievement, as it related positively to team cohesion and leadership effectiveness. Kim et al. (1999) found that leader problem solving related positively to team performance more than any other leadership functions. Druskat and Wheeler (2003) showed that leaders who engage in caring, supporting activities towards members are more likely to be regarded as superior.

One of this study's goals is to understand how multicultural experiences and cultural intelligence relates to the leadership functions that are critical to the effective performance of team processes. Hence, it is important to mention relevant literature on multiculturalism and cultural intelligence, as done in the next topics.

2.2. Multicultural Experiences

Multiculturalism has been explored across several different fields of study. A multicultural experience has been described as 'time spent in another culture, interactions with people from other cultures, and cultural salience, as manipulated in the laboratory' (Narvaez & Hill, 2010, p. 45). For the purpose of this study, we will consider multicultural experience to be the aggregation of several intercultural encounters (Narvaez & Hill, 2010). Intercultural encounters occur when an individual meets a different, unfamiliar reality,

whether it is related to cultures, ideas or events. These encounters typically lead to disagreement and to a consecutive cognitive adjustment and growth (Narvaez & Hill, 2010).

The literature suggests that, opposed to multiculturalism, monoculturalism as a moral principle is not only less generalizable, but ‘distortive and oppressive’ (Fowers & Richardson, 1996). Actually, the clash of different, contrasting perspectives that multicultural experiencing brings can lead to a shift in an individual’s way of thinking that may allow for future superior cognitive flexibility (Narvaez & Hill, 2010). Indeed, experiencing cultural diversity has been seen to increase the likelihood for growth (Gurin, Dey, Hurtado, & Gurin, 2002), and whether it is through traveling, volunteering, studying abroad, or working abroad, it can enhance intercultural competencies such as cognitive flexibility, empathy, openness to new experiences, and tolerance (Fowers & Richardson, 1996) (Narvaez & Hill, 2010).

For these reasons, it would be expected that culturally challenging experiences would reinforce intercultural competence. One would expect that, for instance, exchange students come back from their international experiences with greater multicultural competence (Jackson, 2015). But on the contrary, it has been observed that students sometimes return more narrow-minded and ethnocentric when not taking full advantage from the intercultural learning experience of their stay (Jackson, 2015). This shows that the simple acts of traveling, working or studying abroad might not be enough to explain cultural intelligence development. Actually engaging and immersing in the unknown culture is what is important (Perry & Southwell, 2011). It might also mean that having multicultural experience doesn’t necessarily mean to be culturally intelligent. These findings have set the stone for one of the purposes of the writing of this thesis: to understand to what extent the degree of multicultural experience enhances a leader’s functions and abilities to lead his/her team towards an effective teamwork.

As mentioned, greater experience with multicultural settings and personal encounters can improve flexibility, empathy and tolerance capabilities, which may be important to the leadership role, especially during interpersonal processes (Marks et. al, 2001). As these processes occur with great importance during both the transition and action phase, it is expected that the level of multicultural experience relates positively to all three process levels intrinsic to leadership functions. For instances, during the transition phase, empathy might be useful to establish and plan tasks according to the preferences of each member. During the

action phase, flexibility can be important for dealing with unexpected events, and tolerance might be useful to deal with conflicts arising inside or outside the group.

Hence, the following hypothesis will be tested:

- Hypothesis 1 (H1): Multicultural experience has a positive effect on the leader's leadership functions.
 - Hypothesis 1a (H1a): Multicultural experience has a positive effect on the leader's transition phase leadership functions.
 - Hypothesis 1b (H1b): Multicultural experience has a positive effect on the leader's action phase leadership functions.
 - Hypothesis 1c (H1c): Multicultural experience has a positive effect on the leader's social support leadership functions.

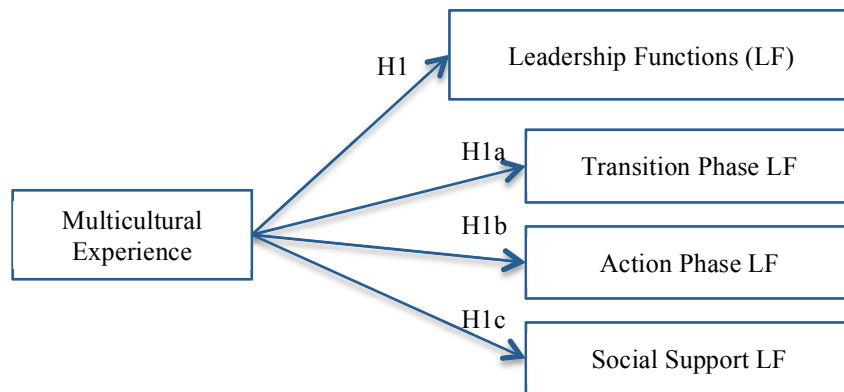


Figure 1: Hypothesis 1, 1a, 1b and 1c.

As the previous section on team leadership showed, leadership functions are extremely important motivators of overall team effectiveness. As we mentioned that multicultural experience should relate positively to the leader's leadership functions, it should also be expected that multicultural experience influences positively the effectiveness of the team. This is because, through the development of adaptability, tolerance and flexibility competencies, the leader might be able to deal with his subordinates' differences better. He might also be more open to new perspectives and solutions for goal accomplishment, more flexible to other's contributions, and overall be able to better motivate his team. All these are expected to lead to a more effective team, hence, the following hypothesis will also be tested:

- Hypothesis 2 (H2): Multicultural experience of the leader has a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).

- Hypothesis 3 (H3): Multicultural experience of the leader has a positive effect on his/her leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 3a (H3a): Multicultural experience of the leader has a positive effect on his/her transition phase leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 3b (H3b): Multicultural experience of the leader has a positive effect on his/her action phase leadership functions, which in turn have a positive effect on team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 3c (H3c): Multicultural experience of the leader has a positive effect on the leader's social support leadership functions, which in turn have a positive effect on team's effectiveness (satisfaction, viability, effectiveness perception).

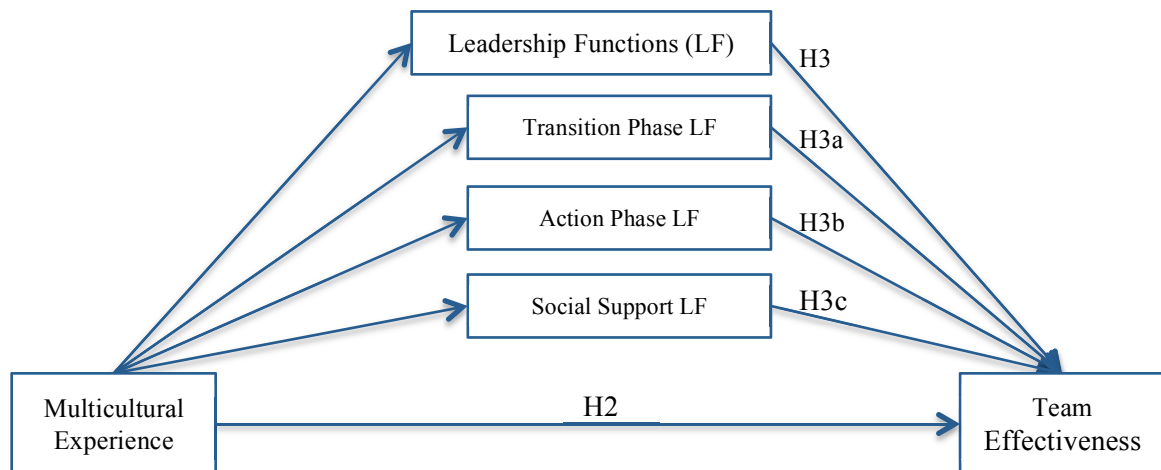


Figure 2: Hypotheses 2, , 3, 3a, 3b and 3c.

2.3. Cultural Intelligence

Related to multicultural intelligence, cultural intelligence (CQ) has been defined as the ‘capability to function in culturally diverse settings’ (Ang, et al., 2007). Alon and Higgins (2005) argue that this capability allows leaders to easily make changes to national working contexts, to absorb new forms of social interaction, and to act more appropriately when faced with the challenges of multicultural settings and contexts; Earley and Peterson (2004) applied a model of cultural intelligence to educational and training interventions on intercultural work

assignments and suggest that the global manager training should include the metacognitive, motivational and behavioral components of CQ; Triandis' (2006) focused on intelligence as a culturally bound definition, arguing that CQ requires extensive training in order for an individual to form accurate judgments and improve interaction in multicultural contexts. CQ is distinguished from multicultural experience because it is not simply based on experience, it requires training and absorption, it is a competence, rather than a familiarity. The importance of mentioning both concepts lies on the fact that experience might not be enough to improve the leader's capabilities and his teams' consequent effectiveness. As mentioned earlier, cultural intelligence as a competence might be more impactful on the leader's functions and on his team's effectiveness, than simply experiencing with other cultures. As a matter of example, a Portuguese person who lived in Morocco for a year might have had the enriching experience of contacting with a diverse culture, but he might lack the ability or tolerance to accept and adapt to that country's cultural traces.

2.3.1. The Four Dimensions of Cultural Intelligence

Although most of the work on cultural intelligence has been focused on conceptual theorizing (Ang, et al., 2007), Ang et al. (2007) developed a model that suggests the different relationships between cultural intelligence and three intercultural effectiveness outcomes. Specifically, their work focuses on the effects of the metacognitive, cognitive, behavioral and motivational dimensions of cultural intelligence on cultural judgment and decision-making, cultural adaptation and task performance in culturally diverse situations (Ang, et al., 2007).

Earley and Ang (2003, cit. in Ang et al., 2007) applied Sternberg's multiple-loci of intelligence to the CQ concept. As such, the authors considered metacognitive, motivational, behavioral and cognitive dimensions of intelligence to have a particular prominence when applied in culturally diverse contexts. Metacognitive intelligence, according to Sternberg's (1986), is about acquiring and understanding knowledge structures. Motivational intelligence, in turn, concerns the capability to maintain a certain level of energy when performing a specific task. Behavioral intelligence is about the action manifestations, what people do, not what they think. Applied to CQ, metacognitive intelligence refers to the processes used to obtain and comprehend cultural knowledge, specifically, the ability to plan, monitor and revise mental models of cultural norms. This means that people with strong metacognitive CQ are able to deliberately identify others' cultural preferences before and during the encounter.

Additionally, they have the capability to question pre-defined assumptions and to adjust their mentality and suspend judgment during and after the contact (Ang, et al., 2007).

As metacognitive CQ is centered on cognitive processes of higher-order, cognitive CQ on its turn refers to the familiarity with norms and conventions practiced in different cultures. These are acquired either from experiencing multicultural settings or from educational processes, and include not only the understanding of the different economic, legal, social and cultural systems, but also the basic structures of cultural values that distinguish cultures (Hofstede, 2001, cit. in Ang et al., 2007). A high cognitive CQ individual is able to identify and comprehend differences and resemblances between cultures among the stated systems and structures. He is also better equipped with capabilities to identify and understand role expectations and, therefore, to demonstrate appropriate role behaviors (Ang, et al., 2007).

A third dimension of cultural intelligence is motivational CQ, which explains one's ability to focus his/her energy and attention towards acquiring more knowledge on how to function in culturally diverse situations. A high motivational CQ individual has a personal intrinsic interest on directing energy and attention efforts toward these situations (Ang, et al., 2007).

Finally, behavioral CQ, as the name suggests, is about the ability to display appropriate verbal and non-verbal behaviors when in contact with culturally different people. As important as having the mental capabilities and motivation to understand different cultural values and contexts, so it is to be able to act appropriately when faced with these differences. As so, having a high behavioral CQ means being capable of showing the most suitable words, tone of speaking, facial and body expressions (Gudykunst et al. 1998, cit. in Ang et al., 2007) in order to meet the expectations of the next.

Ang et al.'s (2007) findings suggest that from the four dimensions, only metacognitive CQ and behavioral CQ are more directly related to task performance. Together, metacognitive CQ, cognitive CQ, motivational CQ and behavioral CQ are the different capabilities that complete CQ, making CQ the ability to generally be 'effective in culturally diverse settings' (2007, p. 339).

2.3.2. Leader Cultural Intelligence

In spite of the emergent industry need to better understand cross-cultural leadership skills, the literature on cultural intelligence of leading positions is still scarce (Groves &

Feyerherm, 2011). In its majority, cultural intelligence has been studied with no empirical evidence of leadership results' prediction (Groves & Feyerherm, 2011). Nevertheless, Groves and Feyerherm's (2011) work showed that leader CQ (cultural intelligence) (Ang, et al., 2007) predicted team performance in culturally diverse characterized contexts. Their work also indicates that this prediction goes beyond the effects of leader emotional intelligence or other leadership competencies (Groves & Feyerherm, 2011). Leaders with a well-developed CQ identify and understand better the necessities of their teams and are able to create stronger relationships with members from other cultures, leading to a better allocation of knowledge and solutions to problems that arise (Groves & Feyerherm, 2011).

So far, research on cultural intelligence, constrained by the concept's own definition, showed that CQ would predict leadership effectiveness in culturally diverse circumstances, while general leadership effectiveness would be predicted by emotional intelligence (Groves & Feyerherm, 2011). In sum, the literature suggests that the leader's cultural intelligence 'should only be associated with leadership performance in culturally diverse teams and organizations' (p. 540), since it concerns wider and more elaborated cognitive, motivational and behavioral frames than the ones needed in a homogeneous national group. Ang et al. (2007) argue that 'CQ is conceptually distinct from personality traits, other intelligences and other intercultural competencies' (p. 340).

Nonetheless, previous work by Ang et al. (2006) showed that openness to different experiences, creativity, and the tendency to be imaginative and adventurous related to CQ's four dimensions. Hence, personal intercultural traits associated with higher CQ levels might be positively linked with team leadership functions across the three processes previously explained, whether applied to multicultural teams or not. In fact, attributes like open-mindedness, tolerance towards ambiguity, and flexibility and patience (Leung, Ang, & Tan, 2014) might be positively related to the interpersonal leadership processes explained in Marks et al.'s (2001) model and related to the support of the team's climate. These traits, developed with the CQ, could provide the leader with increasing abilities to calibrate its team's emotional levels, and to better manage interpersonal conflicts that may arise within the group. Likewise, personal attributes such as cognitive complexity, inquisitiveness, quest for adventure and patience (Leung et al., 2014), can influence the leader's leadership functions on both the transition and action phase, whether in a multicultural team or not. This might happen whether through a better cognitive capability to structure and plan the team's mission

and goals, to monitor the tasks and to effectively solve problems, or through a level of inquisitiveness that will challenge the team towards better results.

This analysis led to the definition of the following hypothesis:

- Hypothesis 4 (H4): CQ has a positive effect on the leader's leadership functions.
 - Hypothesis 4a (H4a): CQ has a positive effect on the leader's transition phase leadership functions.
 - Hypothesis 4b (H4b): CQ has a positive effect on the leader's action phase leadership functions.
 - Hypothesis 4c (H4c): CQ has a positive effect on the leader's social support leadership functions.
- Hypothesis 5 (H5): CQ has a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
- Hypothesis 6 (H6): CQ has a positive effect on the leader's leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 6a (H6a): CQ has a positive effect on the leader's transition phase leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 6b (H6b): CQ has a positive effect on the leader's action phase leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).
 - Hypothesis 6c (H6c): CQ has a positive effect on the leader's interpersonal leadership functions, which in turn have a positive effect on the team's effectiveness (satisfaction, viability, effectiveness perception).

Finally, it is important to understand how the concepts of multicultural experience and cultural intelligence relate, since it is expected that the experience will lead to the development of cultural intelligence. It is expected that a leader who has experienced culturally different and challenging situations develops his competence to act and behave within a culturally diverse setting. Hence the following hypothesis will also be tested:

- Hypothesis 7 (H7): Multicultural experience has a positive effect on the leader's level of cultural intelligence.

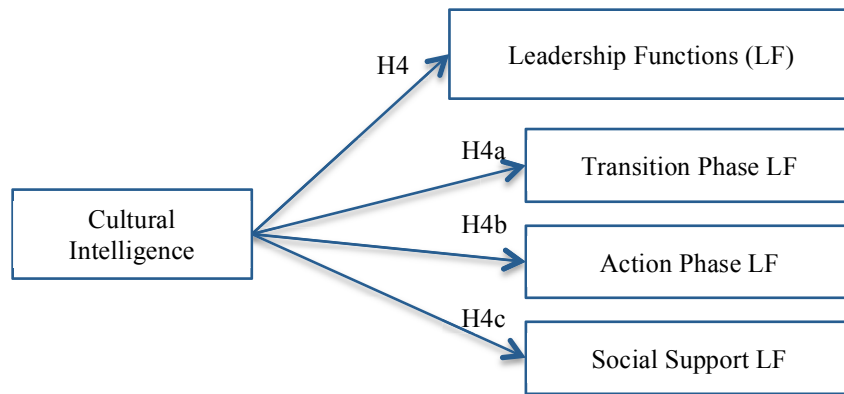


Figure 3: Hypotheses 4, 4a, 4b and 4c.

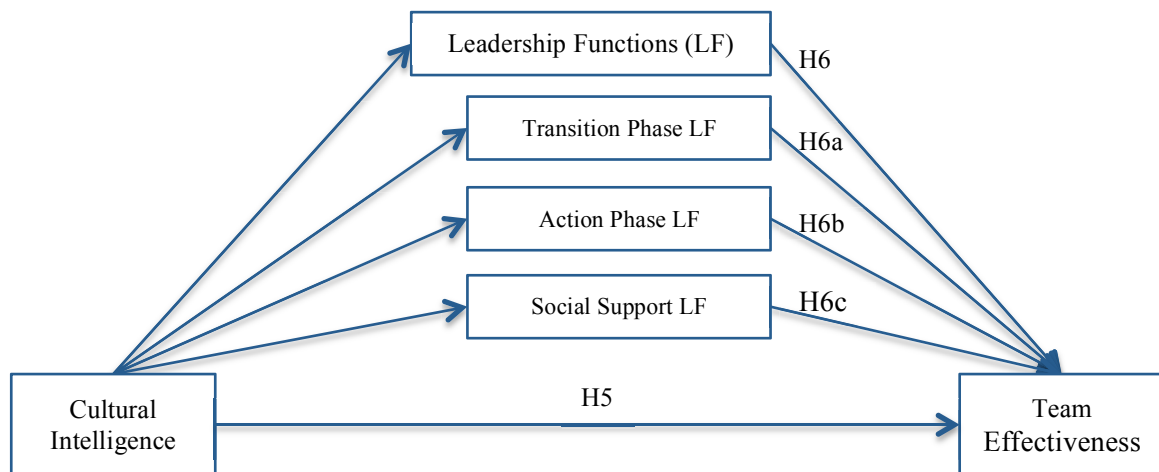


Figure 5: Hypotheses 5, 6, 6a, 6b and 6c.



Figure 4: Hypothesis 7.

3. Methodology

3.1. Participants

For the execution of this study, a total of 243 respondents, from 51 teams, answered a questionnaire. 28 of the respondents' teams were organized and assembled especially for this study (*study* teams, n=139), and 23 other teams were formal workspace teams from diverse work settings (*company* teams, n=104). The study was done with these two different types of teams in order to maximize the number of participants considering the time constraint. In both types of team, *study* or *company*, all members answered the questionnaire individually and anonymously. The majority (55.3%) of the respondents were female (mean=1,56; sd=0,497) and 61.3% were under 30 years old (mean=32.7; sd=13.1). The average number of team members was 4.9 (sd=0.7). Most of the members from the *study* teams already knew each other before the task completion (79%), and 23% of the teams had members from different cultures.

3.2. Procedure

Five master students from the Católica-Lisbon School of Business and Economics' dissertation seminar *Team Effectiveness* contacted and recruited teams and participants for this study.

Study teams

Teams from the *study* procedure were allocated to work together by the five master students responsible for this research. The *study* with each team was performed in a controlled university environment (classroom), guaranteeing that conditions were equal across teams. A leader was randomly assigned to each team, and before starting the assigned task, all members answered Questionnaire 1 (See appendix 1). Following the completion of the first survey, the teams started the task. Instructions for its accomplishment were given only to the leader. This way, and given that most members of the teams were not familiar with the leadership or working style of others, the leader would demonstrate sufficient leadership functions for the team to be able to answer Questionnaire 2 (See appendix 2).

The given task consisted of building the maximum number of figures with a *tangram* game within 20 minutes. In the end, teams had to choose a logo from the figures that they were able to build and justify their choice. Each group was presented with a *tangram* game

printed on one sheet of paper, and with another sheet with 36 possible figures (See appendix 3). The team with the higher number of completed figures in less time would win a 30€ voucher. Participants were allowed to use any material desired, but were forbidden to use the Internet. Additionally, only one team member was allowed to leave the room merely once during the task completion time. These rules were set to guarantee the observation of a sufficient number of teamwork phases and leadership functions (See appendix 4).

Company teams

21 teams from real work settings were included in this study. The teams contacted were from different industries: catering (4 teams), aviation (2 teams), distribution (1 team), Fast-moving Consumer Goods (3 teams), information technology (2 teams), education (7 teams), culture (1 team) and healthcare (1 team). Because the teams in case were already working together and knew who their formal leader was, they did not need to perform a specific given task. Teams simply answered a questionnaire individually, which consisted on an aggregated and adapted version of Questionnaire 1 and 2 mentioned earlier.

To guarantee the confidentiality and anonymity of the answers, the survey was distributed both through an online link that only the people involved in the study had access to, and through a printed version sealed in an envelope with the code attributed to that specific team. This way, respondents had a guarantee that neither their team leaders nor their colleagues would have access to their answers.

3.3. Measures

Leadership functions were measured with selected items from Morgeson et al.'s (2010) self-report 'Team Leadership Questionnaire (TLQ)' scale. The original 82-item scale was adapted into a 20-item scale that surveyed 8 items considering transition phase functions ('Communicates what is expected of the team'), 9 items considering action phase functions ('Monitors team and team member performance'), and 3 items related to the interpersonal relationships ('Engages in actions that demonstrate respect and concern for team members'). Participants answered using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*), according to their level of agreement with the items.

Team effectiveness was measured through a 17-item scale, using three subscales that evaluated team viability, team satisfaction and team effectiveness perception. **Team viability** was measured with four items ('I would not hesitate to participate in another task with the

same team') adapted from Standifer's (unpublished data, 2009) work. **Team satisfaction** was measured through a 9-item scale ('All in all, and considering every aspect of your participation in the team you would say you are') and participants answered according to their personal satisfaction with the team (1 = *completely dissatisfied*; 7 = *completely satisfied*). Effectiveness during performance was measured through the teams' self-effectiveness **perception**, rather than through objective results. This was because, in the case of company teams, it would be very hard to access tangible results, as the types of task they engage in can differ so much. As such, effectiveness perception was measured using a 4-item scale ('My team is effective') to which respondents answered using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*)

Multicultural experience was measured using an adaptation of Narvaez & Hill's (2009) self-report scale 'Multicultural Experience Questionnaire (MEQ)'. The original 15 items MEQ was adapted to include 9 items. Since each item has different point scales, it is impossible to evaluate its overall reliability. The leader's overall MEQ score was calculated, as suggested by the authors, by adding the values of each answered item.

Cultural intelligence was measured using an adaptation of Ang et al.'s (2007) self-report scale 'The Cultural Intelligence Scale (CQS)'. The CQS is composed of the following subscales: Metacognitive ('I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds'), cognitive ('I know the legal and economic systems of other cultures'), motivational ('I enjoy interacting with people from different cultures'), and behavioral ('I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it'). Participants answered the scales using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*), according to their personal agreement with the items. The adapted 15-item CQ scale revealed good overall internal reliability (individual $\alpha = .86$; aggregated $\alpha = .83$). The overall leader CQ value was computed by calculating the means of the four subscales' items.

Variable Scale	Number of items	Chronbach's Alpha	
		Individual	Aggregated
Leadership functions	20	.97	.99
- Transition phase functions	(8)	.94	.97
- Action phase functions	(9)	.93	.97
- Support social climate functions	(3)	.90	.94
Team effectiveness	17	.94	.96
- Satisfaction	(9)	.94	.96
- Viability	(4)	.77	.81
- Perceived effectiveness	(4)	.96	.98
Multicultural experience	9	-	-
Cultural intelligence	15	.86	.85
- Metacognitive CQ	(3)	.76	.75
- Cognitive CQ	(4)	.78	.73
- Motivational CQ	(4)	.81	.82
- Behavioral CQ	(4)	.82	.85

Table 1: Individual and aggregated Chronbach's Alpha for each study variable.

4. Findings

4.1. Data analysis

The collected data was analyzed using the *SPSS Statistics* software. Two different datasets were built, one with answers at the individual level and other with answers at the team level. Values for the team level dataset were computed by aggregating team members' answers in each variable scale (N = 51 teams). Values for the leader's MEQ and CQ were collected at an individual level, but considered at the team level for the dataset. This was an important step to guarantee not only that a team level analysis was performed, but also that it would be possible to answer our hypotheses. Rwg(j)'s and ICC indexes were calculated in order to see if the member's responses could be aggregated. Table 2 and 3 show the descriptive statistics for the calculated rwg(j)'s and the calculated ICC indexes.

	Rwg(j) Mean	ICC(1)	ICC(2)
Leadership functions	0,85	0,54	0,48
Transition phase functions	0,81	0,55	0,48
Action phase functions	0,81	0,54	0,46
Support social climate function	0,70	0,38	0,04
Satisfaction	0,75	0,18	-0,74
Viability	0,82	0,18	-0,78
Perceived effectiveness	0,70	0,41	0,11

Table 2: Mean values for rwg(j)'s and ICC values for each variable.

The data analysis was conducted with the team level dataset and was performed through regression and simple mediation analysis: H4, H4a, H4b and H4c were tested with simple regressions; H6, H6a, H6b and H6c were tested with simple mediations; The mediation analysis was conducted using Preacher & Hayes (2004) *Process Macro* for *SPSS*. *Process* is an analysis tool for mediation analysis that generates the direct and indirect effects in mediation models with several independent variables. This tool uses bootstrapping to estimate the indirect effect on a number of samples created from the data. In hypotheses 6, 6a, 6b, 6c, it tested the effect of the independent variable CQ on the dependent variables of team effectiveness (viability, satisfaction, perceived effectiveness) through leadership functions (transition phase, action phase, and support social climate functions). The purpose of these analyses was to better explain the underlying mechanisms by which the level of CQ may impact team effectiveness.

4.2. Results

The next table presents the mean (\bar{x}) and standard deviation (σ) of each variable, as well as the correlations between all the variables.

	\bar{x}	SD	Correlations								
			1.	1.1.	1.2.	1.3.	2.	3.	4.	5.	6.
1. Leadership functions	5,21	0,97	1								
1.1. Transition phase functions	5,20	1,08	,978**	1							
1.2. Action phase functions	5,82	1,06	,983**	,936**	1						
1.3. Support social climate functions	5,39	1,00	,916**	,860**	,882**	1					
2. Satisfaction	5,44	0,69	,593**	,578**	,589**	,556**	1				
3. Viability	5,82	0,61	,427**	,400**	,416**	,501**	,641**	1			
4. Effectiveness Perception	5,23	1,05	,666**	,638**	,675**	,600**	,695**	,653**	1		
5. MEQ Score (leader)	33,67	5,87	-0,042	-0,018	-0,037	-0,187	-0,097	-0,169	0,063	1	
6. CQ Score (leader)	5,12	0,70	,307*	0,232	,339*	,323*	0,073	-0,048	0,143	0,167	1

Table 3: Mean and standard deviation of each variable and correlations between all the variables. (* Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level)

Regression analysis' results for H4, H4a, H4b and H4c can be found in the table bellow. H1, H1a, H1b, H1c and H7 were not tested because MEQ showed non-significant correlations to the dependent variables Leadership functions, transition phase functions, action phase functions, support social climate functions and CQ score. H5 was also not tested for the same reasons. Therefore, these hypotheses were not supported.

	Independent variable	Dependent variable	R²	F	B	SE	Sig.	β
H4	CQ Score (leader)	Leadership Functions	,094	4,901	2,98	,196	,032	,307*
H4a		Transition phase functions	,054	2,684	3,31	,222	,108	,232
H4b		Action phase functions	,115	6,104	3,13	,212	,017	,339*
H4c		Support social climate functions	,104	5,465	2,99	,200	,024	,323*

Table 4: Regression analysis' results. (* Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level)

These simple linear regressions were calculated to predict leadership functions, transition phase functions, action phase functions, and support social climate functions based on the CQ score of the leader. CQ shows statistically significant effects on most leadership functions. We can see that the leader's CQ explains 9,4% of the variance of the responses to the overall leader's functions ($R^2=0.094$, $F(1,47)=4.901$, $p<0.05$). The leadership phase functions where this effect is higher are the action ($R^2=0.115$, $F(1,47)=6.104$, $p<0.05$) and the support social climate phase ($R^2=0.104$, $F(1,47)=5.465$, $p<0.05$).

In order to test the indirect effect of the leader's CQ score on team effectiveness (satisfaction, viability, effectiveness perception) through the leadership functions, several mediation analyses were conducted. Again, results for MEQ correlations did not justify a mediation analysis of the leader's MEQ score indirect effect on team effectiveness, and so the mediations were only conducted using CQ score. The results are shown in table 4 on the next page.

			Bootstrapping (1000 samples)			
			Percentile 95% Bias			
Independent variable	Mediator	Dependent variable	Indirect Effect	Lower CI	Upper CI	
H6_1	Leadership Functions	Satisfaction	,1945	,0317	,5079	
H6_2		Viability	,1329	,0084	,3550	
H6_3		Effectiveness Perception	,3211	,0233	,6983	
H6a_1	Transition phase functions	Satisfaction	,1381	-,0267	,4580	
H6a_2		Viability	,0909	-,0181	,3172	
H6a_3		Effectiveness Perception	,2243	-,0681	,6391	
H6b_1	Action phase functions	Satisfaction	,2169	,0488	,5210	
H6b_2		Viability	,1477	,0199	,3528	
H6b_3		Effectiveness Perception	,3662	,0941	,7260	
H6c_1	Support social climate functions	Satisfaction	,1972	,0406	,4854	
H6c_2		Viability	,1585	,0207	,3613	
H6c_3		Effectiveness Perception	,3131	,0553	,6788	

Table 5: Mediation analysis' results.

These mediation analyses were performed with a bootstrapping of 10000 samples and significance tested for a 95% confidence level. CQ's indirect effect on team effectiveness variables satisfaction, viability and effectiveness perception is significant through the leadership functions, the action phase functions, and the support social climate functions. The mediation analysis does not show a significant indirect effect on team effectiveness through the transition phase functions, as the interval between the lower CI and the upper CI contains the value zero.

5. Discussion

Regression analyses' results supported H4, but not H1, H2 or H7. Multicultural experience appears not to have a statistically significant effect neither on any leadership function (H1) nor on the leader's individual cultural intelligence score (H5). Not having significant results for H5 supports Perry & Southwell's (2011) thesis that the acts of traveling, working abroad or simply experiencing different cultures might not be enough to develop cultural intelligence. What is imperative is to engage, immerse and take on lessons from these experiences. In fact, results suggest that having culturally challenging experiences doesn't necessarily reinforce cultural intelligence. Cultural intelligence, on the other hand, has a positive effect on leadership functions and explains 9,4% of its variance – 11,5% of the action phase functions, 10,4% of the support social climate functions and a smaller effect on the transition phase.

As for the mediation analyses, results support H6, H6b and H6c: CQ's has a significant indirect effect on effectiveness perception through the overall leadership functions, the action phase functions and the support social climate functions. H4a was not supported which means that there is no statistically significant indirect effect of CQ on team effectiveness through transition phase functions. The types of tasks performed by the teams in this specific sample might explain this unexpected result. For the *study* teams, a specific task with structured instructions and goals was pre-defined and there was only one possible solution. Therefore, it was probably a task that did not require a vast number of perspectives on its planning. Within the *company* teams, many were operational teams, more focusing in carrying out their tasks rather than in planning them (e.g. catering, distribution, FMCG) where work is more operational and tasks are expected to be well pre-defined and controlled, which also might make the transition phase functions more objective and not relevant for CQ. In other teams (e.g. education), and whereas they share a common goal, each individual may carry out the tasks (i.e. classes) according to his or her own plan.

Overall, results point to the conclusion that coming across culturally challenging settings or people does not necessarily increase cultural intelligence, nor has a significant effect on how the leader acts upon his subordinates. Cultural intelligence, on the other hand, seems to be a relevant capability for leaders to develop – even when only working with people from his/her culture. This conclusion is drawn in spite of what the literature suggests: that CQ should only be applied within culturally diverse settings. As seen, this specific study

was conducted with a majority of culturally homogeneous teams and results show significant effects on the different leadership phase functions.

Additionally, we can conclude that not only CQ improves team effectiveness, it improves it on its three indicators – satisfaction, viability, and effectiveness perception. It is clear that CQ improves the social dimension of team effectiveness. But this improvement is possible through the mediation of the leader's functions, which means that not only CQ cultivates the relationships between the leader, his team members and between the team members themselves, but that it also improves specific team leadership competencies – competencies that are not restricted to the social dimension of leadership (such as action phase functions). That is, one can acquire leadership skills outside formal trainings, as one acquires CQ competencies.

Finally, CQ might also be useful for conflict management within teams. As past research shows (Jehn, de Wit, & Greer, 2012), task conflict can benefit group outcomes because members have an increased understanding of the task and a more critical evaluation of each other's opinions. Here, CQ could be relevant as the ability and openness to accept different perspectives could potentiate the positive effect of task conflict. But this type of team conflict can also lead to narrow, limited thinking that will affect overall group creativity and effectiveness (Jehn et al., 2012). CQ might pose as a barrier for this narrow thinking, as flexibility could improve the way members interpret others viewpoints on their own abilities and competencies. Relationship conflict, on another hand, is perceived as having generally negative effects on group outcomes, since personal divergences increase member's levels of anxiety and might lead to reduced collective problem solving (Jehn et al., 2012). It might be possible that during relationship conflicts CQ serves the leader and the members with the necessary capabilities to be flexible and tolerant towards personal differences, in order to reduce the negative effects of this type of conflict. Finally, research on process conflict has also shown negative associations to group outcomes. This conflict arises when role assignments are seen by members of the group to carry personal connotations related to their personal capabilities or regard within the group (Jehn et al., 2012). Again, CQ could be a significant competence not only for the leader, but for all the members of the team in order to solve this type of conflict through the increased tolerance towards diversity or the unknown, or the ability to manage quarrelsome or diverse perspectives and opinions.

Because conflict management is an interpersonal process (Marks et al., 2001), and those being crucial for both the transition and action phases of team processes, we can conclude that CQ's prominence and relevance is transversal to the whole cycle of team-work life.

5.1. Practical implications

Several practical implications for the real world can be drawn from the results of this study. First, cultural intelligence as a competence should be identified, trained and promoted among leaders within every type of organization. This competence, contrary to the international experience, *per se*, is shown to have an impact on the leadership functions.

Second, universities and companies that send students or expats to other countries should promote and train some kind of cultural immersion before and, particularly, after the experience. This is to guarantee that the experience itself develops into an absorbed competence that will be useful in future leadership roles. Universities, because they have more structured educational and training systems than companies or organizations, can easily invest on this competence through transversal courses.

Third, and related to the processes of selection and recruitment, companies should make an effort to assess to what level the applicant's international experience is relevant. As seen, experience does not mean that the person has developed traits of tolerance, flexibility, open-mindedness, etc. It is important that applicants are considered based on their competencies rather than experiences.

5.2. Limitations and further developments

Apart from this study's contributions, it also contains several limitations that should be pointed out. First, the sample size (n=51 teams) was not as big as desirable, nor was the fact that we had two different types of samples (*study* teams and *company* teams). More data on real companies should have been included especially so that the results had better practical implications. Although clearly not ideal, this sample size and structure was the manageable given the time constraint imposed for the writing of this dissertation. Future research can address this matter by collecting data from a more extensive sample size, and focusing only on real world teams.

Second, data was self-reported, as each participant answered each item based on self-evaluation, excluding the evaluation of his leader and team. We can also not guarantee that participants answered in full disclosure and honesty, or that their answers corresponded to the absolute truth. Furthermore, the collected data is cross-sectional, which means that data was collected all at the same time and within the same time period. In the future, it would be interesting to see how respondents' opinions on their leader and team vary across time and on different situations. Also, effectiveness was measured through perception of team members. Future research could be done in order to quantify team performance and effectiveness more objectively.

Finally, this study did not have sufficient data from culturally heterogeneous teams in order to compare the effects of cultural intelligence on culturally homogeneous and heterogeneous teams. This is definitely an interesting point for future research, as CQ has been used only within culturally diverse settings: to see to what extent the effects of cultural intelligence differ within multicultural teams and national teams.

Related to the topic of cultural differences, an idea for further development could be to assess the effect of company culture on its leaders' ability to lead teams more effectively.

References

- Alon, I., & Higgins, J. M. (2005). Global leadership success through emotional and cultural intelligences. *Business Horizons*, 501-512.
- Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader Behaviors and the Work Environment for Creativity: Perceived Leader Support. *Leadership Quarterly*, 15(1), 5-32.
- Ang, S., Dyne, L. V., & Koh, C. (2006). Personality Correlates of the Four-Factor Model of Cultural Intelligence. *Group & Organization Management*, 31(1), 100-123.
- Ang, S., Dyne, L. V., Koh, C., Ng, Y. K., Templer, K. J., Tay, C., et al. (2007). Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. *Management and Organization Review*, 3(3), 335-371.
- Aubé, C., & Rousseau, V. (2011). Interpersonal aggression and team effectiveness: The mediating role of team goal commitment. *Journal of Occupational and Organizational Psychology*, 84(3), 565-580.
- Costa, P. L., Passos, A. M., & Bakker, A. B. (2014). Team work engagement: A model of emergence. *Journal of Occupational and Organizational Psychology*.
- Druskat, V. U., & Wheeler, J. V. (2003). Managing from the boundary: The effective leadership of self-managing work teams. *Academy of Management Journal*, 46, 435-457.
- Earley, P., & Peterson, R. (2004). *The Elusive Cultural Chameleon: Cultural Intelligence as a New Approach to Intercultural Training for the Global Manager*. Academy of Management Learning & Education.
- European Commission. (2015). *Erasmus + Programme Annual Report 2014*. Directorate-General for Education and Culture.
- Fowers, B. J., & Richardson, F. C. (1996). Why is multiculturalism good? *American Psychologist*, 51(6), 609-621.
- Groves, K. S., & Feyerherm, A. E. (2011). Leader Cultural Intelligence in Context: Testing the Moderating Effects of Team Cultural Diversity on Leader and Team Performance. *Group & Organization Management*, 36(5), 535-566.

Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and Higher Education: Theory and Impact on Educational Outcomes. *Harvard Educational Review*, 72(3), 330-366.

Hackman, J. R. (1983). *A Normative Model of Work Team Effectiveness*. Interim, Yale School of Organization and Management, New Haven, CT.

Henderson, J., & Lee, S. (1992). Managing I/S design teams: A control theories perspective. *Management Science*, 38, 757-777.

Hinsz, V. B., Tindale, S. R., & Vollrath, D. A. (1997). The Emerging Conceptualization of Groups as Information Processors. *Psychological Bulletin*, 121(1), 43-64.

Jackson, J. (2015). Becoming interculturally competent: Theory to practice in international Education. *International Journal of Intercultural Relations* .

Jehn, K. A., de Wit, F., & Greer, L. (2012). The Paradox of Intragroup Conflict: A Meta-Analysis. *Journal of Applied Psychology*, 97(2), 360-390.

Kim, Y., Min, M., & Cha, J. (1999). The roles of R&D team leaders in Korea: A contingent approach. *R&D Management*, 29, 153-165.

Leung, K., Ang, S., & Tan, M. L. (2014). Intercultural Competence. *Annual Review of Organizational Psychology and Organizational Behavior*, 489-519.

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A Temporally Based Framework and Taxonomy of Team Processes. *Academy of Management*, 26(3), 356-376.

Martin, A., & Bal, V. (2015). *The State of Teams*. Retrieved July 2016, from Insights.CLL: <http://insights.ccl.org/wp-content/uploads/2015/04/StateOfTeams.pdf>

Morgeson, F. P., DeRue, D. S., & Karam, E. P. (2010). Leadership in Teams: A Functional Approach to Understanding Leadership Structures and Processes. *Journal of Management*, 36(1), 1-39.

Narvaez, D., & Hill, P. L. (2010). The Relation of Multicultural Experiences to Moral Judgment and Mindsets. *Journal of Diversity in Higher Education*, 3(1), 43-55.

Perry, L. B., & Southwell, L. (2011). Developing intercultural understanding and skills: models and approaches. *Intercultural Education*.

Preacher, K., & Hayes, A. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.

Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "Big Five in Teamwork? *Small Group Research*, 36(5), 555-599.

Sivunen, A. (2006). Strengthening identification with the team in virtual teams: The leaders' perspective. . *Group Decision and Negotiation*, 15, 245-366.

Standifer, R., Halbesleben, J., & Kramer, J. (2009). The impact of individual temporal differences on team process and team effectiveness". *paper presented at Society for Industrial and Organizational Psychology*. Hilton, Atlanta.

Triandis, H. C. (2006). Cultural Intelligence in Organizations. *Group & Organization Management* , 31(1), 20-26.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team Leadership. *The Leadership Quarterly*, 12, 451-483.

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Team Effectiveness

QUESTIONNAIRE 1

This questionnaire is part of the Master thesis of five students of The Catholic University of Portugal, whose theme is Team Effectiveness. Your participation in this study is very important to us. Please answer each question truthfully. There are no right or wrong answers. It should be also noted that the survey is completely anonymous and the data will be treated confidentially. The data analysis will be statistical only. For any questions about the project, please contact Profª Drª Patricia Costa (patricia_costa@clsbe.lisboa.ucp.pt).
Thank you very much for your collaboration!

Please answer the following statements according to your personal experience.

I travel out of the country.	<input type="checkbox"/> Never	<input type="checkbox"/> 1-2 times in my life	<input type="checkbox"/> 3 or more times	<input type="checkbox"/> Regularly		
I speak well	<input type="checkbox"/> 1 language	<input type="checkbox"/> 2 languages	<input type="checkbox"/> 3 languages	<input type="checkbox"/> more than 3 languages		
I have been abroad to study (Erasmus, Exchange Program)	<input type="checkbox"/> Never	<input type="checkbox"/> 3-6 months	<input type="checkbox"/> 6 months	<input type="checkbox"/> 6-9 months	<input type="checkbox"/> over 9 months	
How many times? _____ How many different countries? _____						
I have been abroad to work	<input type="checkbox"/> Never	<input type="checkbox"/> 1-2 months	<input type="checkbox"/> 3-6 months	<input type="checkbox"/> 6-9 months	<input type="checkbox"/> 9-12 months	<input type="checkbox"/> over 1 year
I have lived in a contrasting community (with a very different culture from my own). How many times? _____ How many different countries? _____	<input type="checkbox"/> Never	<input type="checkbox"/> 1-2 months	<input type="checkbox"/> 3-6 months	<input type="checkbox"/> 6-9 months	<input type="checkbox"/> 9-12 months	<input type="checkbox"/> over 1 year
I correspond currently with people from other countries.	<input type="checkbox"/> Never	<input type="checkbox"/> 1 country	<input type="checkbox"/> 2-3 countries	<input type="checkbox"/> more than 3 countries		
I have friends from cultural-racial-ethnic backgrounds different than my own. How close are they? _____	<input type="checkbox"/> 0 friends	<input type="checkbox"/> 1 friend	<input type="checkbox"/> 2 friends	<input type="checkbox"/> 3 friends	<input type="checkbox"/> 4 friends	<input type="checkbox"/> 5 or more friends
I have had courses in intercultural communication	<input type="checkbox"/> None	<input type="checkbox"/> 1 course	<input type="checkbox"/> 2 courses	<input type="checkbox"/> 3 or more courses		

Please answer each of the following statements by choosing the option that best describes you.

(1 – Strongly disagree; 2 – Disagree; 3 – Somewhat disagree; 4 – Neither agree nor disagree; 5 – Somewhat agree; 6 – Agree; 7 – Strongly agree)

	1	2	3	4	5	6	7
I want to travel outside of my country.							
I want to have friends from different cultural-racial-ethnic backgrounds.							
I work with people with cultural-racial-ethnic backgrounds different from my own.							
I go out of my way to hear/read/understand viewpoints other than my own							
I try to get to know people who are different from me.							
I push myself to explore my prejudices and biases.							
Discussing issues of discrimination, racism and oppression makes me uncomfortable.							
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.							
I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.							
I am conscious of the cultural knowledge I apply to cross-cultural interactions.							
I check the accuracy of my cultural knowledge as I interact with people from different cultures.							
I know the legal and economic systems of other cultures.							
I know the rules (e.g., vocabulary, grammar) of other languages.							
I know the cultural values and religious beliefs of other cultures.							
I know the marriage systems of other cultures.							
I know the arts and crafts of other cultures.							
I know the rules for expressing nonverbal behaviors in other cultures.							
I enjoy interacting with people from different cultures.							
I am confident that I can socialize with locals in a culture that is unfamiliar to me.							
I am sure I can deal with the stresses of adjusting to a culture that is new to me.							
I enjoy living in cultures that are unfamiliar to me.							
I am confident that I can get accustomed to the shopping conditions in a different culture.							
I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.							
I use pause and silence differently to suit different cross-cultural situations.							
I vary the rate of my speaking when a cross-cultural situation requires it.							
I change my nonverbal behavior when a cross-cultural situation requires it.							
I alter my facial expressions when a cross-cultural interaction requires it.							

Please indicate the percentage (%) of elements of your team that you knew before the beginning of the task (approximately). _____

Nationality: _____ Occupation: _____ Age: _____ Male Female

Code: _____

N° of Team member: _____

Team Effectiveness

I am the leader of this team: Yes No **QUESTIONNAIRE 2**

This questionnaire is part of the Master thesis of five students of The Catholic University of Portugal, whose theme is Team Effectiveness. Your participation in this study is very important to us. Please answer each question truthfully. There are no right or wrong answers. It should be also noted that the survey is completely anonymous and the data will be treated confidentially. The data analysis will be statistical only. For any questions about the project, please contact Profª Drª Patricia Costa (patricia_costa@clsbe.lisboa.ucp.pt).
Thank you very much for your collaboration!

Now think about the leader of the team you are in, and choose the degree to which you agree with each of the following statements.

(1 – Strongly disagree; 2 – Disagree; 3 – Somewhat disagree; 4 – Neither agree nor disagree; 5 – Somewhat agree; 6 – Agree; 7 – Strongly agree)

The leader of my Team...	1	2	3	4	5	6	7
Communicates what is expected of the team.							
Ensures that the team has clear performance goals.							
Communicates expectations for high team performance.							
Defines and structures own work and the work of the team.							
Works with the team to develop the best possible approach to its work.							
Identifies when key aspects of the work needs to be completed.							
Reviews relevant performance results with the team.							
Provides positive feedback when the team performs well.							
Requests task-relevant information from team members.							
Notifies flaws in task procedures or team outputs.							
Monitors team and team member performance.							
Reconsiders key assumptions in order to determine the appropriate course of action.							
Contributes ideas to improve how the team performs its work.							
Challenges the status quo.							
Implements or helps the team implement solutions to problems.							
Participates in problem solving with the team.							
Helps the team develop solutions to task and relationship-related problems.							
Engages in actions that demonstrate respect and concern for team members.							
Looks out for the personal well being of team members.							

Please focus now on how you feel about working in this team, and the work you do together.

(1 – Completely dissatisfied; 2 – Mostly dissatisfied; 3 – Somewhat dissatisfied; 4 – Neither satisfied or dissatisfied; 5 – Somewhat satisfied; 6 – Mostly satisfied; 7 – Completely satisfied)

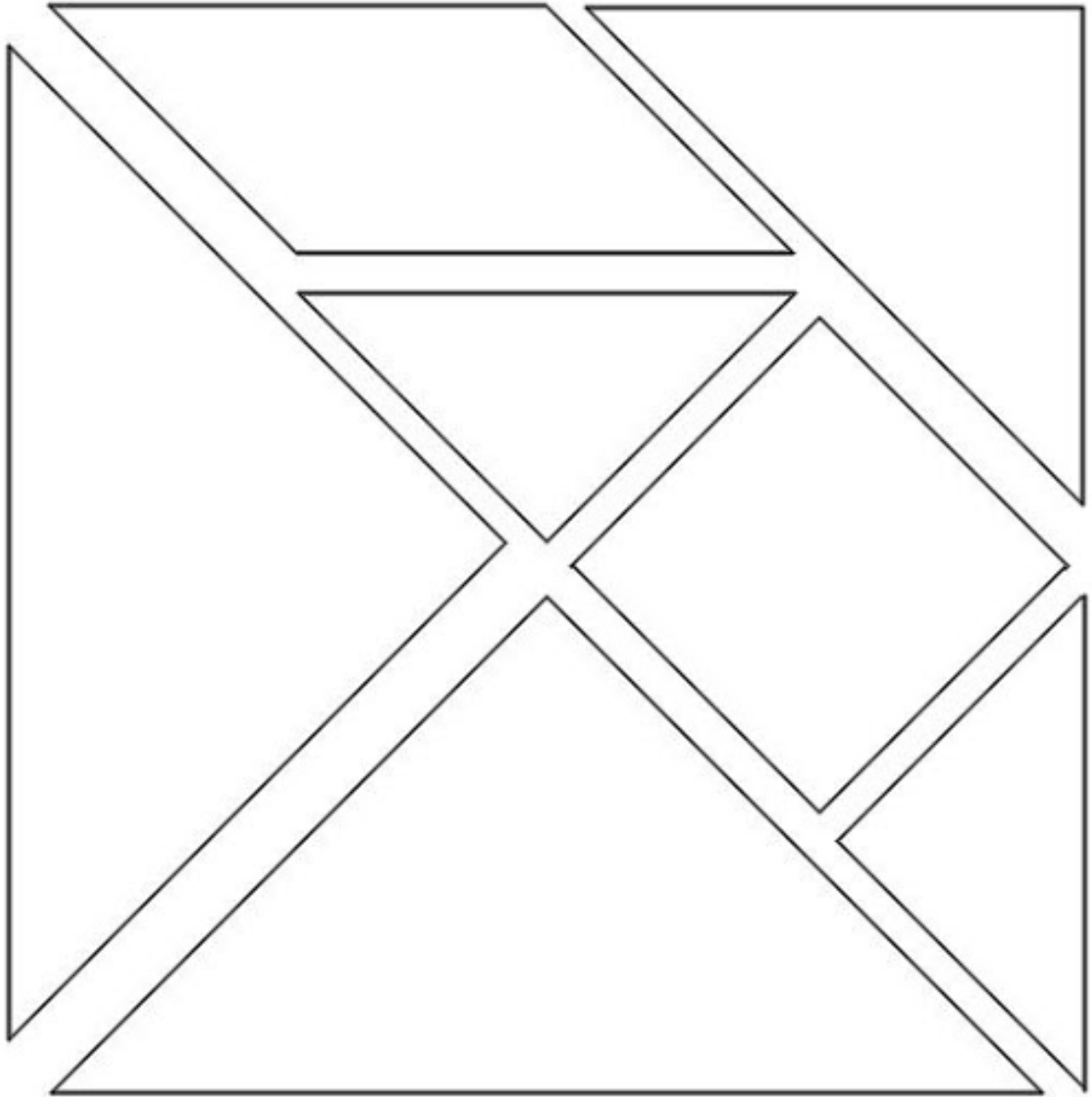
How satisfied are you with the...	1	2	3	4	5	6	7
Team you are in							
Team functioning							
Participation in the task							
Decisions made by your team							
Communication among members of the team							
How the team leader acted							
Strategy defined by the team							
Relationship climate among members of your team							
All in all, and considering every aspect of your participation in the team you would say you are:							

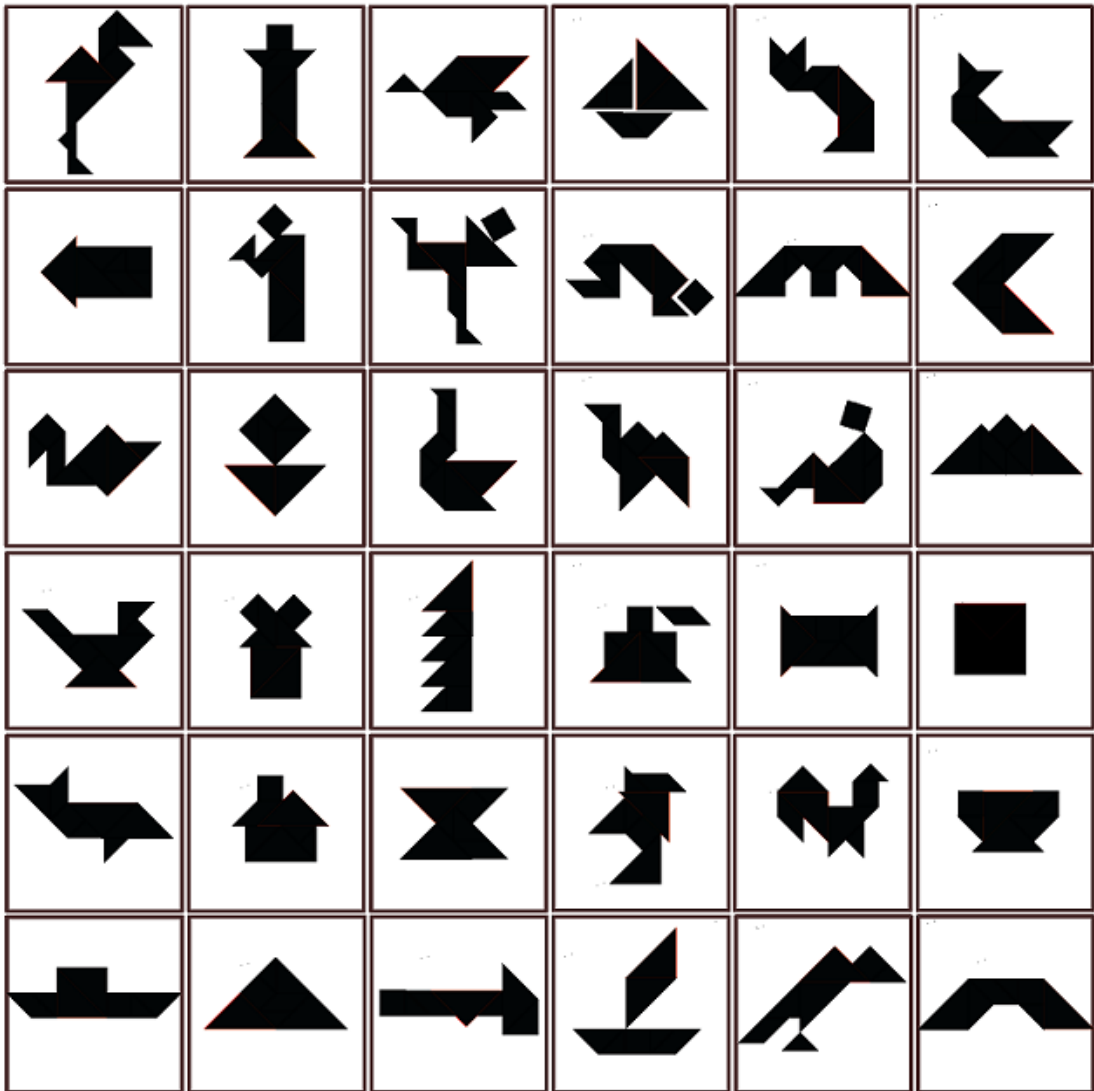
Continue to think about how you feel about your team. To what extent do you agree with each of the following statements?

(1 – Strongly disagree; 2 – Disagree; 3 – Somewhat disagree; 4 – Neither agree nor disagree; 5 – Somewhat agree; 6 – Agree; 7 – Strongly agree)

	1	2	3	4	5	6	7
I would not hesitate to participate in another task with the same team.							
If possible, I would have switched to another team.							
If I had had the opportunity, I would rather work with a different team, instead of working with this one.							
This team would work well in future projects.							
My team was effective.							
My team had a good performance.							
My team had high quality performance.							
My team was successful in the task.							

Thank you very much for your participation!





TANGRAM

Tangram is a puzzle-like game that consists in 7 shapes, called *tans*, that can be organized into figures. The goal of the puzzle is to construct figures using all the 7 shapes, without overlapping them.

You have a representation of the shapes in the next page.

Your task is to ***build the maximum of figures possible, from the list provided in page 3, in 20 minutes.***

In the end of those 20 minutes, you have to decide, from the figures that you have actually build, which one will be the logo for your team and why.

In the end of the study, the team who builds the highest number of figures in less time will win the 30€ voucher.

Rules:

- Do not use the internet – you will be disqualified
- One team member can leave the room once during the 20 minutes, provided that he/she does not take anything with him/her
- You can use any materials you want to
- Please inform the researcher when you finish so that he/she can check if the figure is ok

LOGO

Please write down which figure you chose as logo for your team and why: