



From face-to-face to virtual teams: Work organization during the Covid-19 pandemic

De equipes presenciais a equipes virtuais: Organização do trabalho durante a pandemia da Covid-19

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Abstract

Context: Work teams in the Human Resources and Financial Department of a large consumer goods company needed to reorganize and adapt themselves to the compulsory remote work imposed by the Covid-19 pandemic. Through daily online meetings, they interacted, learned to deal with the new scenario, perceived difficulties, and found opportunities. Now, beyond the actual challenges, they are facing uncertainty about to what extent this work organization will be maintained in the medium and long-term. **Teaching goals:** Analyze the characteristics of the work-teams, reflect on the factors that facilitated and hindered the performance of virtual teams, discuss leadership in remote work contexts, and consider possible changes in teamwork in the post-pandemic period. The case generates reflection about face-to-face and virtual teamwork, as well as on barriers, facilitators, and challenges for the implementation of remote work, which enables fostering competencies and skills of recognition, definition, and resolution of problems, strategic thinking, and proposals for changes in work organization. As it presents different contexts and opinions, sometimes contradictories, careful referrals are required. **Data source:** The case is based on real data obtained through an electronic questionnaire sent to employees in June 2020. The name of the company was kept confidential. Although real speeches, characters and their interaction are fictional. **Applicability:** It can be used as a teaching tool in modules and assignments related to Human Resource Management, Organizational Behavior, and Team Development, present in undergraduate and postgraduate courses. Teaching notes establish educational objectives, recommended use of the case, lesson planning, and guiding questions for discussion in classroom.

Keywords: teaching case, teamwork, virtual teams, organizational behavior, Covid-19.

Resumo

Contexto: Equipes de trabalho do Departamento de Recursos Humanos e Financeiro de uma grande empresa de bens de consumo se reorganizaram para adaptar-se ao trabalho remoto compulsório imposto pela pandemia da Covid-19. Por meio de encontros online diários, eles interagiram, aprenderam a lidar com um novo cenário, perceberam dificuldades e encontraram oportunidades. Agora, além dos desafios atuais, eles enfrentam a incerteza sobre em que medida essa organização do trabalho será mantida em médio e longo prazo. **Objetivos de ensino:** Analisar as características das equipes de trabalho, refletir sobre os fatores que facilitaram e dificultaram o desempenho das equipes virtuais, discutir liderança em contextos de trabalho remoto e considerar possíveis mudanças no trabalho em equipe no período pós-pandemia. O caso gera reflexão sobre o trabalho em equipe presencial e virtual, bem como sobre as barreiras, facilitadores e desafios para a implantação do trabalho remoto, permitindo fomentar competências e habilidades de reconhecimento, definição e resolução de problemas, pensamento estratégico e proposições de modificações na organização do trabalho. Por evidenciar contextos e opiniões diversos, por vezes contraditórios, requer cuidadosos encaminhamentos. **Fonte de dados:** O caso é baseado em dados reais obtidos por meio de

questionário eletrônico enviado aos colaboradores em junho de 2020. O nome da empresa foi mantido em sigilo. Apesar de os discursos serem verdadeiros, os personagens e sua interação são fictícios. **Aplicação:** O seu uso enquanto instrumento didático alinha-se a disciplinas relacionadas com a Gestão de Pessoas, Comportamento Organizacional e Desenvolvimento de Equipes, presentes em cursos de graduação e pós-graduação. As Notas de Ensino estabelecem objetivos educacionais, utilização do caso, plano de aula e questões para discussão em sala de aula.

Palavras-chave: caso de ensino, trabalho em equipe, equipes virtuais, comportamento organizacional, Covid-19.

1. Introduction

The alarm clock went off for another day at work. The displacement in São Paulo, the largest city in South America, requires time and patience. Leaders and teams left their homes, from different parts of São Paulo capital, towards their workplace, a daily meeting point. Teams in the meeting rooms, phones ringing, cell phones vibrating, and computers on. It was March 2020 and it felt like another normal Friday the 13th. Except for the news: 56 confirmed cases of Covid-19 in the state, twice as many cases in 48 hours, the transmission was already happening in a community way. Fear and suspicion were seen in familiar eyes. At the end of the day, everybody's attention turned to the company's official statement: from Monday the 16th, areas would work in a rotation scheme. As days went by, new communications were received, determining remote work for people in risk groups, later, for the administrative area and, at the end of March, everyone was working from home.

- *How are we going to work remotely? We had no time to plan!* - argued Paulo

- *Let's become virtual teams!* – defined Célia, who appeared (or must to) to be the most confident person in the group.

2. Teamwork before social distancing

Paulo and Célia worked at a large consumer goods company, based in São Paulo, and operating throughout Brazil and sixteen other countries in the Americas. It has been in business for 20 years, and employs around 30 thousand people, spread over 30 production-center, and several distribution- and sales-centers in different states of Brazil. Each center enjoys relative autonomy from the headquarters, allowing them to function and better adapt to the context in which they are located. The company's culture cultivated simplicity and focus on results. Everyone tried their best to hit the goals at the end of the year. Therefore, they guarantee individual and group performances, which provide the receipt of an annual bonus, which, on the other hand, places the company among the fifteen companies with the highest net revenue in the country.

Approximately 100 employees, grouped in 13 teams, worked in the Human Resource Management and Financial Department of the regional sales-center in the city of São Paulo. Each team was composed of a leader, who could be a manager or a coordinator, and the "team" (as they called the team members who were not leaders), with positions of analysts, supervisors, and administrative technicians. This sector was dedicated to monitoring leadership in people processes and allocating financial resources, which were annually evaluated using previously established indicators. Indicators' examples are the turnover rates for people, the alignment with the available financial resources (savings instead of blowing the budget), and the impact of a development action on a specific company goal or project.

The teams, whose size varied between five and fourteen members, in general, met daily at the company's headquarters. There were members of different years of age, covering two, three, or more generations. And, considering the set of talents, it was possible to identify a variety of backgrounds, knowledge, and experiences that complemented each other in carrying out the work and achieving the goals. Célia, 41 years old, divorced, with two teenage children aged 15 and 17, had been this team general coordinator for 3 years. She has a degree in Business Administration, and a MBA in Human Resources. Adopting a transformational leadership style, she liked listening to and appreciating the opinions and feelings of the other six members of her "team": the Diagnosis, Planning, Development, Implementation, and Evaluation of Marketing Strategies (DPDIEMS) Sub-department.

The work of team members was cohesive, and the activities performed by each one maintained a dependent relationship with those performed by others. Thus, social exchanges among members were required and were carried out mainly in person, despite the use of communication technologies such as telephone, e-mails, chats, and instant messaging applications. Team members had a similar domain of the communication technologies used, after receiving training as soon as they were in the company. In addition to technical skills, social skills were also valued. And, although infrequently, they had received training about them: the one which dealt with conscious bias, and the other regarding feedback were memorable, remembered Célia. The first aimed to get people to reflect on the

preconceptions and preconceived ideas to minimize bias in peer reviews and the second on how to give feedback on this assessment. The work environment was marked by a climate where ideas, feelings, and expectations were freely shared. With the arrival of Covid-19, this whole scenario of social exchanges and daily meetings had to be changed.

3. The Covid-19 Pandemic and work guidelines

The teams, and all Brazilian society, continued to function and live, oblivious to a virus that, on December 31st, 2019, affected patient “zero” in Wuhan, China: the SARS-CoV-2, most known as the new coronavirus. It triggers symptoms of an acute respiratory syndrome, named as coronavirus disease or just Covid-19. Due to its characteristic of being highly and easily contagious, the virus quickly spread to several continents of the world, being declared a pandemic situation by the World Health Organization (WHO), two and a half months later, on March 11th, 2020.

In Brazil, the Covid-19 pandemic began on February 26th, 2020, with the first confirmed case in São Paulo. Also, one more case was confirmed in February; on March 13th (the day of the decision to suspend in-person activities at the company) there were 56 cases; on March 16th (first day of remote work at this company) there were already 152 confirmed cases; and on March 17th, the first coronavirus death.

With a varied prognosis, it had a greater probability of mortality when it affects the elderly, population with chronic (for example, diabetes and hypertension), heart and/or lung diseases. Faced with unknown treatment and cure, the way to avoid contagion, widely adopted by countries all around the world and recommended by WHO, was horizontal social isolation. That is, restriction of social contact combined with the use of personal protective equipment (such as masks and acrylic face shields), respiratory etiquette (covering mouth and nose when coughing or sneezing) and frequent hand hygiene.

These conditions made it quite impossible for schools, universities, companies, factories, and offices, just like the present one, to function in their entirety, due to the inherent agglomeration of people. The company anticipated the state regulation number 64.881 of March 22nd, 2020, which decreed quarantine in the State of São Paulo. Thus, the teams had to adapt, without prior preparation, organization, or transition period, to continue working and guaranteeing the supply of the products distributed by the population. Employee rotation, remote work, and online synchronous meetings began to be part of the work routine.

In the present sales-center, the general direction was everybody working remotely from home. The administrative area could do that. However, areas, such as logistics (drivers and assistants) and supermarket promoters, continued with face-to-face work after receiving guidance on how to take care of them, and supplies such as masks, and alcohol gel. In the case of the sales area, sellers began to sell remotely and later on visiting clients, but not going to the office.

4. Work reorganization during social distancing

“There was no time to plan. All happened suddenly” reported Célia. The company's work-teams had to adapt, without prior preparation, organization, or transition period, to keep working and guaranteeing that its products would reach the population. She also announced that the team's composition had not changed. The same members, who were already working together in person, continued to work virtually. However, the activities had to be adapted to the context. *“Due to the social distancing, we had to adapt the routine using a lot of online communication tools”*. Thus, the team visit routes were canceled, document signatures were virtually validated, interviews, communications, and meetings started to take place entirely online, and such changes *“forced the reprioritization of activities. Some are less focused now, compared with the attention they normally receive by teams”*. Furthermore, the intermediate goals (monthly or bimonthly), when renegotiated, had the deadline extended to enable reaching them.

Communication technologies already known and used were maintained and had their frequency of use increased dramatically. Besides, new ones were added. A highlight was given to the Zoom Meetings, a remote and synchronous conferencing service, which combines video conferencing, online meetings, chat and mobile collaboration. Célia remembered: *“We started to use Zoom with great frequency to communicate and participate in training and meetings”* and there was also a *“significant increase (...) in WhatsApp use for communication”*.

Not displacing to the traditional place of work and, therefore, working from home, affected employees in different ways. Firstly, *“everyone was using their own resources”* warned Paulo, 26 years old, who lived with his wife, 20 km from the workplace. Secondly, people who already had furniture, internet connection, and personal technological equipment that could be used as work tools, considered that *“there were no inadequacies”* said Paulo. Fabrício, 44 years old, divorced, with no

children, who lived alone, and Lanette, 53, married, with a 24-year-old son who lived with her, agreed. Besides, some employees needed to adapt their homes. Célia had to deal with arguments such as "(...) *Employees who had to buy a notebook to be able to work*". She was talking about Charles, 28, single, living with parents. Or yet, "*Some of them are having problems with the computer*", like Marisa, 38, married, with two children aged 7 and 11, who had to share her computer with her oldest son who was taking virtual classes. Suzana, 32, single, living with her elderly mother and 29-year-old sister complained about "*pain in the spine due to the chair*". In fact, at first, everyone had to use their resources and equipment; however, in a second moment, the company began to offer extras (on the payroll) to help solve the difficulties of those who signaled this need.

"*With this U-turn what happened was that many more people started to access it (talking about information and communication technologies) and had no practice. And they must practice in this crazy situation! So, it started to be very stressful*" - Marisa. To facilitate the adaptation of employees, and considering the function occupied by each one, the company provided online training on remote communication, online feedback and leadership, home office team management, food and routine, time management, and yoga. "*We have been receiving both practical classes, for example, yoga class, and tips' training, such as how to have discipline at home, food, and the time to turn the computer off to do other things*" - described Suzana. Although, by the end of April, a month after adopting remote working, Celia, after running a self-efficacy assessment, considered that everyone felt secure and confident in using these tools.

5. Perceptions about the changes

As the displacement from home to work was suppressed, the house became a workplace. And the consequences of remote working became clear after two months. In May, Suzana pointed out the advantageous of "*time-saving due to not displacing from house to work*"; Paulo highlighted the "*reduction of fatigue caused by displacement*"; and Charles admitted that he was able to have "*higher focus on activities as we have not to go to the company's headquarters*". Furthermore, the three of them agreed this time could be "*converted into production*", which increased their "*quality of life because we do not have to take transportation*" and they felt more "*comfortable working at home*". Also, this scenario increased their satisfaction as they could "*be more present with the family*". At this point, Lanette followed them on this last statement.

On the other hand, working from home and at home generated the "*employees' feeling of 24/7 availability for work*" warned Célia. The "*end of the work versus home relationship. Things are so mixed that it takes us to exceed, in some moments, the working hours and lose the sense of 'not working because I'm at home*", complained Fabrício. Besides, Marisa accused there was a "*misperception of working hours, which generates the feeling that we are available all the time*" and was complemented by Lanette: an "*impaired concentration at work due to the increase in WhatsApp groups and messages, and meetings via Zoom*". "*Furthermore, the costs with technology are not afforded by the company*", concluded Charles.

Communication among members began to take place, primarily, online. At the same time, it was possible to "*adapt us to hold meetings via video conference. Zoom is very efficient and can be used both for training and meetings*" - Célia. However, in one of these meetings, on June 08th, communication barriers were perceived. The budget plan must be submitted by all teams at the beginning of each month. Each team must indicate where and how to allocate the anticipated resources. Thus, they should: check available resources, verify and justify the allocation (considering the annual plan delivered in the previous year), and reinforce the trend for the following month. To fulfill this task, all team members must send their planning and report so that the coordinator can consolidate it and forward it to the responsible sector. By not fulfilling this task, the resources are either idle or are used in disagreement with the annual plan or a debt is incurred by spending more than one could. The task has been overdue for 3 days.

Célia: Hello, everyone! We have a requirement that we should have responded to three days ago. We must be careful with these deadlines.

Fabrício: Excuse me, Célia! I admit we have some delays. The point is that some of us are facing difficulties in reconciling work activities with domestic demands.

Marisa: It is true. I, for example, have two children that I used to leave at school full time, and now they stay with me, at home, full time. Besides, I have a computer that I must share with them. Classes are also online. I must be a worker, wife, mother, teacher, and housekeeper all day long! I feel like work had invaded my home!

Célia: Guys, I understand that once inside the house, domestic demands will appear. Even more so if we are accompanied by people who depend on us for a variety of tasks. Regardless we need to try to meet planned deliveries since other teams need them to carry out their tasks. How can the company help us?

Paulo: I do not know about y'all, but I got *"higher focus and engagement"*. Suzana sent me a request that usually took me 15 to 20 days to deliver. And, at this time, I responded in 10 days. Isn't it true, Suzana?

Suzana: Yes! I think we have greater *"agility exchanging information for problem-solving"*. I wish I could work remotely, forever! I am willing to set up an ergonomically adapted office for me. I can be closer to my mother. She needs me often. Since my sister is a nurse, she is on the front line of the pandemic and had to leave home. Moreover, we had to dismiss the caregiver, to prevent contamination.

Célia: This is an important aspect to analyze. Has our productivity increased because we are more focused? Or has it increased because, as we are at home locked down, we are working harder? Please, don't push too much! We must work, but we must stay healthy!

Marisa: It has been very difficult for me! I can't even consider working like this until the end of the week! How come it would be forever?! Working from home only *"slowed down our communication"*!

Charles: That is not completely true! For some tasks, like the strategy evaluation, which depends on meetings with stakeholders, I have noticed a shorter *"delivery time"*. Nobody is late to meetings. Not even us!

Célia: Because we do not have the coffee machine on the way to the meeting room...

(Laughs...)

Charles: Certainly! However, planning and developing strategies, as we need to discuss in detail, *"ended up taking longer because we are distant from each other"*. No one can stay focused on the Zoom for more than an hour. Before this pandemic and social distancing, it was easier. I had just to pass through your office, or close to your table, to check your opinion. But now, I must wait till you are available to answer my emails or my WhatsApp messages.

Lanette: That's right! We have had a *"delay in solving problems that could be solved faster personally"*.

Fabrício: Yeah! We have *"greater difficulty in sharing information and delay in returning"*. It seems like our work got more difficult, complex, and dependent on others.

Lanette: I do not agree! This experience was important to *"increased autonomy and trust in the team"*!

Fabrício: I think the *"lack of contact makes it difficult to exchange information and to have better collaboration among members"*.

Célia: I am sorry! I am trying my best to get *"closer contact with the team and teamwork"*. But I have to admit that a bit of *"synergy among people was lost"*.

Suzana: Don't blame yourself, Célia! I do not think like that! I can feel we have *"more empathy, less micromanagement, and more management based on trust"*. It is an opportunity for us!

Célia: Thanks, Su! But, anyway, I can tell our interpersonal relationships were affected!

Charles: Yeah... I guess... I think that the *"lack of personal proximity makes giving feedback, realizing of anybody else's feelings, and how the person is today, more difficult"*.

Célia: That's true! I am going to ask the Training and Development of People Sub-department to give a hand on this!

Fabrício: Oh, come on! Another training?! They usually occur at my most productive time of the day. I can hardly ever attend it.

Lanette: Fabrício, I found that these trainings are recorded, and we can access it at another time. You could enjoy it better! You have everything! Computer, good internet, comfort, and a quiet place...

Fabrício: Lanette, you are right! But I feel lonely here by myself all day long! I miss our face-to-face meetings. Mostly the Friday night ones! Furthermore, I had another anxiety attack yesterday. It was the third in the quarantine.

Lanette: Oh no!

Célia: I am so sorry, Fabrício! I already knew that you were suffering, and I strongly hope that you recover from this. I have already communicated with the Health and Quality of Life sector. But I couldn't keep up with the request. I have too many in mind, too many work demands.

Lanette: We will overcome all this. You will see it.

Suzana (chat): 🍷

Marisa (chat): 🙌

Célia: I hope so, Lanette! I hope so. Please, give me a ten-minute break. I'll handle Fabrício's demand and return to you. We must find an intermediate point! We need to work, but we cannot get sick. Think among y'all how do you feel that we can deal with that deadline that expired three days ago. I will be right back.

6. Dilemmas

The teams suffered impacts from the external environment, which forced them to adapt, both at the

individual- and the group-level. As we could see, all the visible changes in the teamwork could be considered advantageous, disadvantageous, or even both an advantage and a disadvantage at the same time. In the context of compulsory remote work and virtual teams, challenges, conflicts, and possibilities are inherent to this scenario, as it has been presented throughout the case. Given this, what could be done to minimize the negative impacts of remote work, such as technological limitations, compatibility of work and domestic demands, inappropriate home office installations, truncated communication, and a sense of isolation? How could Celia, as a leader, deal with such diverse perceptions and opinions without compromising performance and productivity?

Furthermore, remote work will remain during the whole pandemic period. The central administration had already confirmed its maintenance until, at least, December 2020. When asked about maintaining remote work in a post-pandemic situation, Fabrício and Marisa wanted to come back to “normality”, Paulo and Suzana wanted to keep working remotely, and Charles and Lanette manifested they were in favor of a work-routine that establishes a balance between the on-site and the remote work. Célia did not have a formed opinion! How to organize teamwork in the post-pandemic?

TEACHING NOTES

7. Case Synopsis

This case is about a large consumer goods company that had to adapt its work-teams to perform their activities remotely due to the Covid-19 pandemic. More specifically, a work team from the Human Resource Management and Financial Department, operating with seven people, faced a sudden challenge and had to act without prior planning. Overall, the imposed conditions and unexpected and controversial consequences led to different opinions, perceptions and challenges about remote work. At least, for the next five months, work conditions will remain the same, and they need to be monitored in order to avoid compromising work performance and quality of working life. However, in a post-pandemic situation, considering employees' viewpoints, the company might consider this experience to decide new strategies for the future.

8. Educational goals

Considering the report of the teams' trajectory presented in this teaching case, the following learning objectives can be provided:

- Analyze the characteristics of the work-teams;
- Reflect on the factors that facilitated and hindered the performance of virtual teams;
- Discuss leadership in remote work contexts;
- Consider possible changes in teamwork in the post-pandemic period.

9. Skills and competences to be developed

The present case seeks to provide students the following skills and competences, according to the National Curriculum Guidelines for the Administration Course (Conselho Nacional de Educação Superior, 2005, p. 02):

- recognize and define problems, equate solutions, think strategically, act preventively, transfer and generalize knowledge and exercise, in different degrees of complexity, the process of taking decision;
- develop expression and communication compatible with the exercise professional, including interpersonal or intergroups;
- develop the ability to transfer knowledge of everyday life and experience to the work environment and their field of professional activity, in different organizational models, proving to be an adaptable professional;
- having initiative, creativity, determination, political and administrative will, willingness to learn, openness to change and awareness of the quality and ethical implications of their professional practice.

10. Recommended use of the case

We suggest using this case in modules or assignments related to Human Resource Management, Organizational Behavior, and Team Development, from undergraduate and postgraduate courses or MBA's to address the following themes: concept of work-team (face-to-face and virtual), training of work-teams, teams' design, teams' diversity, communication in work-teams, interpersonal relationships in teams, teamwork effectiveness, leadership, management of virtual teams, and quality of working life.

11. Theories

General Systems Theory and the Sociotechnical Approach. The General Systems Theory states that there are universal principles of organization, applied for all systems. Teams can be considered as open systems, as they, continuously, operate, interact, and exchange with the environment, becoming dependent on it to obtain resources and place its products/services (Motta, 1971). It is part of the central ideas of open systems theory that the solution to a problem will have different effects, some of them unexpected. This teaching case refers to this dynamic in which, for example, team members begin to realize that there are other ways of working that in the old routine were difficult to be realized.

At the same time, teams can be understood as socio-technical systems, composed by technical (place, time, and technology) and social subsystems (individuals, social interactions, and social demands), that function in an integrated way, i. e., changes in one system impact the other system and, also, the whole system as an equilibrium. For the technical system to be explored in all its potential, it must be based on the social system, which includes motivation, relationships, communication, among team members (Motta & Vasconcellos, 2006). In the present case, the technical subsystem changed, i. e., a new physical work space and the intensity in which certain technologies should be used. In turn,

the social subsystem also underwent changes, i. e., with the loss of face-to-face contact and greater social interaction at the domestic level.

Transformational Leadership Theory. In the '70s, James MacGregor Burns conceptualized transformational leadership as the kind of leader that not only motivates, inspires, and stimulates teams to develop their own leadership skills but also pays attention to their individual needs and development (Bass & Riggio, 2015). Besides, as they become involved and aware of the needs and motivations of those being led, they can also change themselves throughout the process. Celia, principal character of this case, adopted this leadership style. This can be seen when she recognized the needs and motivations of each team member, and adopted new postures in pursuit of the development of her team.

Job Demands-Resources Model (JD-R Model). The JD-R model establishes that employees' well-being or ill-being depends on the balance between the demands they are facing and the resources that they have at their disposal. While the demands require a physical and/or psychological effort, the resources are aspects that facilitate the achievement of results, stimulate the employee's development and reduce the demands. Consequently, high levels of work demands deplete mental and physical resources, leading to decreased motivation and even health problems (Bakker & Demerouti, 2007).

In the present case, there was a reconfiguration of the demands, as the goals had to be renegotiated and new demands emerged at the domestic level. Something similar happened with the resources, while some features were increased (e.g. flexibility), others were compromised (e.g. social interaction). These changes affected the balance between demands and resources, promoting stress and/or motivation, depending on individual and contextual circumstances.

Quality of Working Life (QWL). Rather than a theory, QWL is an object of study that refers to the actions taken by managers and employees to improve workers' lives and the work environment. It is a combination of explicit and implicit factors, tangible and intangible, that provides a good working environment (Klein, Pereira, & Lemos, 2019). This approach adopts two fronts of action: the company's productivity and the well-being of the worker (Ferreira, 2015). As we could see in the case, these aspects are quite evident: deadline for delivering tasks *versus* domestic demands, negative affect *versus* positive affect, for example.

12. Suggested Teaching Plan

This lesson plan requires students to read the teaching case in advance and a class lasting two hours. The suggested activities, with their objectives and associated time duration, are presented on Table 1.

Table 1 - Teaching Plan: activities, goals and length of time

Activities	Educational goal	Length of Time
1st) ask each student to write down on a sheet of paper 5 keywords that characterize the work-teams before social distancing; 2nd) form small groups, from 4 to 5 members, and ask them to create a single list of keywords; 3rd) make an analysis of the contributions of the groups (difficulties in reaching consensus, common points among groups responses, use of scientific terms etc.)	Analyze the characteristics of the work-teams	30 minutes
Encourage students to analyze the particularities of virtual teams. What are the elements that characterize them? Ask each group to name two distinctive elements of these types of teams.	Analyze the characteristics of the work-teams	10 minutes
Challenge students to reflect on the factors (team characteristics and context) that influence the deployment and performance of virtual teams.	Reflect on the factors that facilitated and hindered the performance of virtual teams	20 minutes
Ask students how leaders should deal with the divergent postures of team members. How should the team leader act?	Discuss leadership in remote work contexts	30 minutes
Encourage students to think about whether this way of work organization should endure over time, even in the post-pandemic period. Are virtual teams a reality that is here to stay? To what extent (or how) would it be, definitely, adopted?	Consider possible changes in teamwork in the post-pandemic period	30 minutes

13. Sources of information

The data used in this Teaching Case were obtained, mainly, from primary sources: through an online questionnaire and participant observation. The questionnaire, made up of open and closed questions, was addressed to employees of the company in the Human Resource Management and Financial sector. Of the 20 employees who answered the survey, 8 were leaders (managers or coordinators), and 12 were “team” (analysts or technicians); they were an average of 30 years of age, and 60% were female. Participant observation was performed by one of the authors of this study. Also, secondary sources were consulted, such as documents released by the company, to describe the context in which the case took place, and by the Covid-19 Pandemic Committee, to describe the decisions made at the sales-center level. The information that could identify the company has been omitted or changed to preserve its identity. Although the speeches in italic font are real, characters and their interaction are fictional.

14. Discussion questions

- **What are the elements that characterize virtual teams?** Based on the teaching case, it is possible to notice that there was a change in the way the teams work. At first, interactions between members were face-to-face, almost daily. After the compulsory distancing due to the Covid-19 pandemic, team members began to work from scattered geographic locations, each in their home. At the same time, the use of technologies has been intensified and started to mediate all interaction among members. These two characteristics are distinctive features of virtual teams, evidenced in the definition of Dulebohn & Hoch (2017, p. 569) “Virtual teams are work arrangements where *team members are geographically dispersed, have limited face-to-face contact, and work interdependently through the use of electronic communication media to achieve common goals*” (italic emphasis added). Meanwhile, the other elements contained in the above definition refer to typical characteristics of face-to-face teamwork, such as interdependence (Hackman, 1987; Mueller, Procter, & Buchanan, 2000) and the search for achieving common goals (Delarue, Van Hootegeem, Procter, & Burrige, 2008; Katzenbach & Smith, 2005).
- **What factors influence the deployment and performance of virtual teams?** There are many factors that influence the deployment and success of virtual teams. One of them is technology (Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015). As can be seen in the teaching case, since social distancing, the use of technologies was intensified, and the number of technological tools increased. If, on the one hand, collaboration mediated by technologies can cause delays in the exchange of information and a greater occurrence of misunderstandings (Andres, 2012); on the other hand, the use of communication technologies can facilitate the management of large teams (Lowry, Roberts, Romano Jr., Cheney, & Hightower, 2006), reduce social loafing (Bryant, Albring, & Murthy, 2009), and increase members’ satisfaction (Chi, Chang, & Tsou, 2012). Training is another relevant factor concerning this issue. In the teaching case, since the switch to remote work, training proliferated. This behavior is consistent with several scientific evidence that highlight the importance of training, especially those that address teamwork (Rosen, Furst, & Blackburn, 2007), and the use of technologies (Kanawattanachai & Yoo, 2007). The latter are particularly necessary when team members have never worked in virtual teams (Gilson et al, 2015). Also, in accordance with the JD-R Model, in response to new job demands, new resources must be made available, in the search for a new balance that does not compromise the motivation and preserve the health of the team members. To this end, the readjustment of goals, meeting the needs for psychological support and the recognition of diversity in working conditions can, as well, improve the QWL. Examples of resources that can contribute to virtual team performance and members’ health are: information sharing, transformational leadership, empowerment (autonomy), and team trust (see Gilson et al., 2015; Dulebohn & Hoch, 2017).
- **How should team leaders act to circumvent members’ divergent postures and perceptions?** In the case reported it is evident that aspects pointed out as advantages for some people, are disadvantages to others. Ostensibly, the different personalities, experiences, family contexts and material conditions (space, furniture, equipment, Internet etc.) make the situation somewhat complex. In this context, leaders can play a central role, “particularly as they influence how a team deals with obstacles and how the team ultimately adapts in the face of such challenges” (Gilson et al., 2015, p. 1319). Empirical evidence indicates that transformational leadership can increase the performance of virtual teams and the level of satisfaction of members (Purvanova & Bono, 2009). This type of leadership is characterized by providing a sense of mission, communicating important matters in a simple way, promoting intelligence and rationality, and having an individualized consideration (Avolio, Waldman, & Yammarino, 1990). This last characteristic gets relevance in the situation faced by the teams, since it implies greater involvement with others, which in turns, creates

a greater connection. In this way, leaders will be able to identify and seek to meet the specific and sometimes contradictory needs of each member.

- **Are virtual teams a reality that is here to stay?** Before the Covid-19 pandemic, due to technological advances and the widespread adoption of work teams in the organizational context, the use of virtual teams was already increasing (Gilson et al., 2015) and this trend was expected to continue throughout over time (Dulebohn & Hoch, 2017). Different surveys portray the growth of virtual teams. One of them, with 1.620 respondents from 90 countries, found that 89% of the participants were part of, at least, one virtual team (CultureWizard, 2018). In addition to the situation above mentioned, teams, as systems in constant exchange with the environment, assumes a sequence of different states while trying to adapt and prevent the entropic process (Motta & Vasconcelos, 2006). The Covid-19 pandemic is becoming the accelerator of one of the most drastic transformations in work organization in recent years, including the change to a remote work environment (Carnevale & Hatak, 2020). Therefore, this pandemic can be configured as another factor driving the growth of virtual teams, as a way to adapt to the new context. According to the company decision, the teams will keep working remotely until, at least, December 2020. From the team members' point of view, after the pandemic, there should be a balance between remote and face-to-face work. These facts indicate that virtual teams may have obtained new spaces in organizations for the near future. However, the adoption of this new style of work, as it has impacted workers in different ways, must be evaluated in terms of its short-, medium- and long-term impacts on Quality of Working Life. Thus, the decision regarding the continuity of the work, whether in the current (totally remote) or in a modified (hybridization) way, shall consider not only the availability and cost of technological devices but also the social role of work and the physical and psychological well-being of the worker.

References

- Andres, H. P. (2012). Technology-mediated collaboration, shared mental model and task performance. *Journal of Organizational and End User Computing*, 24(1), 64-81. <https://doi.org/10.4018/joeuc.2012010104>
- Avolio, B. J., Waldman, D. A., & Yammarino, F. J. (1991). Leading in the 1990s: The four I's of transformational leadership. *Journal of European Industrial Training*, 15(4), 9-16. <https://doi.org/10.1108/03090599110143366>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of managerial psychology*, 22(3), 309-328. <https://doi.org/10.1108/02683940710733115>
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. London: Lawrence Erlbaum Associates.
- Bryant, S. M., Albring, S. M., & Murthy, U. (2009). The effects of reward structure, media richness and gender on virtual teams. *International Journal of Accounting Information Systems*, 10(4), 190-213. <https://doi.org/10.1016/j.accinf.2009.09.002>
- Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183-187. <https://doi.org/10.1016/j.jbusres.2020.05.037>
- Chi, S. P., Chang, Y. Y., & Tsou, C. M. (2012). The effect of team characteristics and communication environment to the virtual team performance. *International Journal of Networking and Virtual Organisations*, 10(2), 137-152. <https://doi.org/10.1504/IJNVO.2012.045731>
- Conselho Nacional de Educação (2005). *Diretrizes Curriculares Nacionais do Curso de Graduação em Administração, bacharelado, e dá outras providências*. Retrieved from http://portal.mec.gov.br/cne/arquivos/pdf/rces004_05.pdf
- CultureWizard, R. W. (2018). Trends in High-Performing Global Virtual Teams. Retrieved from <https://contentbulletins.com/hubfs/C1/Culture%20Wizard/LL-2018%20Trends%20in%20Global%20VTs%20Draft%2012%20and%20a%20half.pdf>
- Delarue, A, Van Hootegem G, Procter S. & BurrIDGE M. (2008). Teamworking and organizational performance: a review of survey-based research. *International Journal of Management Reviews*, 10(2), 127-148. <https://doi.org/10.1111/j.1468-2370.2007.00227.x>
- Dulebohn, J. H., & Hoch, J. E. (2017). Virtual teams in organizations. *Human Resource Management Review*, 27(4), 569-574. <https://doi.org/10.1016/j.hrmr.2016.12.004>
- Ferreira, C. M. (2015). Qualidade de vida no trabalho (QVT): do assistencialismo à promoção efetiva. *Laboreal*, 11(2), 28-35. <https://dx.doi.org/10.15667/LABOREALXI0215MCFV>
- Gilson, L. L., Maynard, M. T., Jones Young, N. C., Vartiainen, M., & Hakonen, M. (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management*, 41(5), 1313-1337. <https://doi.org/10.1177/0149206314559946>

- Hackman, J. R. (1987). The design of work teams. In J. W. Lorsch (Ed.), *Handbook of Organizational Behaviour* (pp. 315-342). Englewood Cliffs, NJ: Prentice Hall.
- Kanawattanachai, P., & Yoo, Y. (2007). The impact of knowledge coordination on virtual team performance over time. *MIS Quarterly*, 31(4), 783-808. <https://doi.org/10.2307/25148820>
- Katzenbach, J. R. & Smith, D. K. (2005). The Discipline of Teams. *Harvard Business Review*, 83(7), 162-172. Retrieved from <https://cormentisconsulting.com/cormenti/wp-content/uploads/2019/06/Discipline-of-teams.pdf>
- Klein, L. L., Pereira, B. A., & Lemos, R. B. (2019). Quality of working life: Parameters and evaluation in the public service. *RAM. Revista de Administração Mackenzie*, 20(3). <https://doi.org/10.1590/1678-6971/eRAMG190134>
- Lowry, P. B., Roberts, T. L., Romano Jr, N. C., Cheney, P. D., & Hightower, R. T. (2006). The impact of group size and social presence on small-group communication. *Small Group Research*, 37(6), 631-661. <https://doi.org/10.1177/1046496406294322>
- Motta, F. C. P. (1971). A teoria geral dos sistemas na teoria das organizações. *Revista de Administração de Empresas*, 11(1), 17-33. <https://doi.org/10.1590/S0034-75901971000100003>
- Motta, F. C. P. & Vasconcelos, I. F. G. (2006). *Teoria geral da administração*. 3ª ed. São Paulo: Pioneira Thonsom.
- Mueller, F., Procter, S. y Buchanan, D. (2000). Teamworking in its context(s): antecedents, nature and dimensions. *Human Relations*, 53(11), 1387-1424. <https://doi.org/10.1177/00187267005311001>
- Purvanova, R. K., & Bono, J. E. (2009). Transformational leadership in context: Face-to-face and virtual teams. *The Leadership Quarterly*, 20(3), 343-357. <https://doi.org/10.1016/j.leaqua.2009.03.004>
- Rosen, B., Furst, S., & Blackburn, R. (2007). Training for virtual teams: An investigation of current practices and future needs. *Human Resource Management*, 45(2), 229-247. <https://doi.org/10.1002/hrm.20106>.