

KNOWLEDGE IN ACTION

Faculty of Business Economics

Master of Management

Master's thesis

The Impact of Hybrid Work on Team Creativity: Understanding the Conditions of the Workplace

Simon van Rossum

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization Strategy and Innovation Management

SUPERVISOR:

Prof. dr. Allard VAN RIEL

MENTOR:

Mevrouw Melisa YILDIZ



 $\frac{2022}{2023}$



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Preface

At the beginning of this academic year, it was known that I had to write a master's dissertation.

Immediately, I knew that writing a dissertation would be very challenging and consume a lot of time,

energy, and focus. There are three many reasons why I opted for the topic; the conditions of the

hybrid workplace influencing team creativity. Firstly, my father and mother have jobs in different

work environments and are highly dependent on team collaboration and creative problem-solving.

Secondly, this topic allows me to examine a new organizational landscape and prove to myself that

I am capable of understanding and exploring concepts in a novel and academic field which I am not

yet very familiar with. Thirdly, as a society, we have seen what something like COVID-19 can cause

to organizations on a global scale. The pandemic led to a rapid influx of home workers. As a post-

consequence, it is expected that future generations and teams will operate in a hybrid work

environment (Jaiswal & Arrun, 2020; Davenport, 2021; Hooijberg & Watkins, 2021). This ubiquitous

and radical transition toward a more digital society and workplace in the last three years sparked my

interest in the evolution of workplaces.

After COVID-19, most people expected that things were returning to normal, but we have encounter

a hybridized work model instead of a fully digital remote work model (McKinsey, 2022b; Microsoft,

2022). By exploring the hybrid transition teams encountered, I can develop new insights into a topic

that will help me to establish myself in my future career. For example, I have the ambition to work

internationally; examining the hybrid work environment and use of digital collaboration tools can

prepare me to work effectively in geographically dispersed teams. In addition, exploring what your

future work environment will most probably be like can give me a head start at my new job role.

Writing a good master's dissertation can be very challenging and stressful. Therefore, I genuinely

want to thank several people who supported me during my master's dissertation. Firstly, I would like

to thank my coach and Ph.D. Candidate Melisa Yildiz, and supervisor, Professor Allard van Riel, for

allowing me to research this topic and for their valuable feedback and guidance throughout this

academic year. Secondly, I also would like to thank friends and family, particularly my parents and

niece, who always supported me through this difficult and intense period of time. Finally, I genuinely

want to thank all the participants that were willing to partake in the interviews. Their participation

and insightful answers are greatly appreciated.

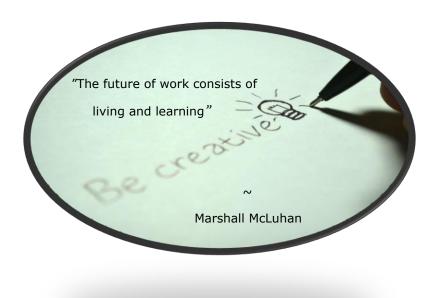
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June 7, 2023

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Note. It is important to state that the images throughout this master dissertation have been derived from a website that supports copyright-free pictures, including the picture on this page. The legal simplicity of this website (www.pexels.com) is stated in Appendix 3. The images of the result section have been taken by the researcher. The signed consent form to use these pictures in a responsible, legal, and ethical manner can also be found in Appendix 3.

Abstract

Extant literature did not research how the physical, digital and social conditions in the hybrid work environment influence team creativity (Reeds & Allen, 2021; Reiter-Palmon et al., 2021). Therefore, this research paper examines inputs, team processes, and moderators of creative projects in the hybrid work environment. The nature of this study is explorative and predominantly conducted in the IT industry. In this research paper physical, digital and social conditions of hybrid teams influencing team creativity are articulated. Those conditions are identified through an explorative study based on 12 semi-structured interviews. The developed conceptual framework by the researcher for the hybrid work environment integrates the findings. This research paper reveals the team processes between managers and employees by the utilization of physical and digital resources influencing the social conditions and stages of team creativity (problem identification, idea generation and idea championing). Theoretical and practical implications, recommendations for future research and limitations of this study are provided.

Keywords: hybrid teams, hybrid work environment, physical conditions, social conditions, digital collaboration tools, team creativity

The Management Summary

Research purpose

This research paper examines the influence of physical-social conditions and digital collaboration tools in the hybrid work environment. When employees experience a change in the physical work environment, the social work environment can be changed, which influences team collaboration and creativity (Leenders et al., 2003; Amabile, 2006). Not only are the employees affected by the hybrid transition, but also the managers. Leadership is one of the spheres that influence the effectiveness of virtual and hybrid teams (Contreras et al., 2020; Mitchell & Brewer, 2021), and how a team creatively solves problems and adapts to changing forms of workplaces (Gilson et al., 2015). Therefore, it is crucial for organizations that creativity as a process will be managed effectively within the hybrid work environment.

Problem statement

During the pandemic, the existing literature compared conventional teams to virtual teams or only examined virtual work environments (e.g., working from home), which resulted in a neglection of hybrid teams (Jaiswal & Darrun, 2020; Davenport, 2021; Hooijberg & Watkins, 2021), leading to gaps among the hybrid literature span. As the work environment is different and more mixed in a hybrid work environment, extant literature urged to examine how physical-social conditions and digital collaboration tools in the hybrid work environment influence team creativity (Reiter-Palmon et al., 2021: Reed & Allen, 2021). If this gap in the literature is not going to be solved, managers will be unaware of how to tackle the social challenges of hybrid working. Therefore, the following research question was formulated: Which physical, digital and social conditions influence team creativity in the hybrid work environment?

In order to answer the research question, the following sub-research questions were formed:

- 1. What physical conditions in the hybrid work environment influence team creativity?
- 2. In which way do social conditions in the hybrid work environment influence team creativity?
- 3. To what extent is each creativity stage affected by digital collaboration tools?

Methodology/Determination of the research method

In order to build a preliminary theoretical framework for this thesis, a literature review has been conducted to understand key definitions, theories, concepts, and relationships on the research topic at hand. The researcher conducted 12 semi-structured interviews with managers and employees in in-office, hybrid, and virtual work environments to answer the research question and fulfill the research purpose. This qualitative study focused on the richness of detail: to identify the patterns, similarities, and contradictions. (Bhandari, 2020). Those patterns were examined and explained, which led to new insights and propositions for further studies.

Findings and results

Most participants in hybrid and virtual teams have an adequate and well-equipped home office. Very few employees did not have an adequate home office and attributed this to space constraints rather

than a lack of organizational support for providing physical and digital resources. The digital resources that have been identified as crucial for stimulating creativity in the work environment are computers with software applications and collaboration tools, multiple screen monitors, digital cameras for hybrid work and virtual work, high-quality audio support, Wi-Fi with enough bandwidth, and a good connection to the data of the office are considered as crucial in meetings and creative sessions for hybrid and virtual work. Hybrid workers do not have conflicting beliefs about the office's role regarding socialization, task complexity, and group size in creative sessions. Managers and employees prefer to work in-office when the scale of the problem is large and when the number of people in the group is large. When the group size or problem is small, they prefer to work in a virtual or hybrid work environment. Furthermore, in the hybrid work environment people need to use new digital collaboration tools that, and some employees require training in the efficient use of those tools. The older generation seems to struggle more with mastering new tools that the younger one. In addition, there are no group assessment or evaluations scheduled of how to work effectively during creativity stages during a hybrid session.

The change in the work environment influences communication, which in turn influences a team's social conditions and creativity. Using only audio communication and no video communication negatively impacts social conditions and team creativity because workers can not see each other's social cues, such as; body language and facial expressions. This lack of social cues can hinder creativity as colleagues are unaware of each other's activities during a creative session, which can affect the team's trust levels. Office workers did not experience any trust issues due to their openplan environment. Consequently, the creative process in an office environment will not be hampered. Employees emphasize the importance of managers considering personal situations and well-being in the hybrid and virtual work environment. Employees indicated they do experience enhanced wellbeing due to more flexibility in a hybrid work environment and less micromanagement. Therefore, this enhanced well-being caused increased levels of productivity and creativity during creative sessions. Conventional teams, on the other hand, experience more interruptions and distractions in open-plan offices because they have open-door policies and open workspaces. Managers of conventional teams can better supervise their employees and detect problems, behavioural changes, and social cues quicker because of the visibility in the open-plan office. Therefore, conventional teams generally experience a higher level of psychological safety compared to virtual and hybrid teams. In contrast, hybrid and virtual workers as they experience lower levels of psychological safety; as when something is unclear during or after a creative session, employees tend to postpone questions to their manager regarding the problem as they wonder if it is a good moment to call or meet, leading to less knowledgeable input in the next creative session.

Digital collaboration tools can heavily influence the creative process. According to most participants, idea generation is most affected by digital collaboration tools and technology as it is the most creative stage of the three and the longest one in length, followed by idea championing and problem identification. However, the current digital software applications available on the market and installed by many companies, such as Miro, which is very beneficial and ideal for idea generation and championing. Several participants indicated that they have to master several tools when working

virtual or hybrid. They prefer one coherent platform with built-in software tools and applications that will be more efficient and easy for the team.

To answer the research question, physical and social conditions influence team creativity within the hybrid work environment. However, it highly depends on how the social conditions of a team are managed. Teams that do have those physical and digital resources for hybrid working are better enabled to perform in creative projects or sessions. The hybrid work environment leads to decreased levels of trust, psychological safety, and team cohesion, which negatively influences team creativity. Whereas from a manager's point of view, hierarchical leadership is something they do not prefer. Employees enjoy the flexibility and less micromanagement of the hybrid work environment, leading to enhanced well-being, and indicated that the manager should consider their personal circumstances. Therefore, it is recommended to managers that they should adopt a Situational Leadership Style depending in which work environment they work in the hybrid work environment. The findings confirm Kalio & Blomberg's (2009) 's framework of creativity, which means it can positively or negatively affect creativity in the workplace, depending on the attributes of each leadership style and environmental/situational impacts. Furthermore, Amabile Componential Theory (1996) also aligns with the hybrid work environment. Even more so in the hybrid teams as they heavily depend on innovative and high-quality physical-digital resources due to mixed presence of team members.

Critical considerations

This master thesis contained some limitations. Despite these limitations, this research can be tested and serve as a potential foundation to further study team creativity in hybrid teams. First of all, the scope of the study was constrained in its sample size. In total, 12 participants were interviewed, but this sample size is too small to generalize a theory. Secondly, it was more difficult to find managers than employees to participate in this interview. Therefore, the managers and employees in the sample size are not equally balanced. Thirdly, out of the 4Ps of creativity, only one 'P' was researched, which was creativity as a process. Fourthly, during the qualitative data analysis, it turned out that the problem identification stage in most cases is highly dependent on external parties (e.g., other departments, clients, or suppliers). Managers and employees were interviewed throughout the study, but not any of those external parties. The final limitation of this study is that the researcher had limited insights and access to creative projects. Participants were more willing to share the successful projects than the unsuccessful ones in some of the projects.

Theoretical and practical implications

This study can be a base for inspiration for further research of physical-social conditions and digital collaboration tools influencing team creativity. It proves that Amabile's Componential Theory (1996) and Kalio & Blomberg's framework of creativity (2009) serve as good theoretical models for the hybrid work environment. In this way the gap between theory and practice can be further closed. The new insights of this study could guide managers to comprehend the social challenges within the hybrid work environment. In addition, study enables to modify the manager's leadership style in order to match the demands of their employees and simultaneously improve the team's social conditions and creativity.

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List of abbreviations

Abbreviation	Meaning
COVID-19	Coronavirus Disease 2019
DKS	Digital knowledge sharing
EKS	External knowledge sharing
GDPR	General Data Protection Regulation
HWE	Hybrid work environment
IKS	Internal knowledge sharing
IOE	In-office environment
IT	Information Technology
PWE	Physical work environment
SSI	Semi-structured interview
SWE	Social work environment
WFH	Working from home
WFHE	Working from home environment

1 Introduction

In early December 2019, the first Coronavirus Disease 2019 (COVID-19) case was discovered in the Chinese district of Wuhan (Ceylan & Heyran, 2021; Zhu et al., 2020). Three months later, on the 11th of March 2020, the World Health Organization officially announced COVID-19 as a pandemic (WHO, 2020). This pandemic caused many restrictions on social, financial, and physical activities routinely implemented at regional and national levels (Ceylan & Hayran, 2021; Nolan et al., 2021). Non-essential businesses were forced to close, and primarily online sales were permitted. This caused millions of employees who previously housed their personnel in a traditional in-office environment (IOE) to be forced to set up a home office in order to work from home (WFH). This caused WFH to be mandatory instead of optional and resulted in a new way of work. Therefore, media outlets coined WFH as "the new normal" (Bhatia & Mote, 2021; Richter, 2020). Many businesses could not cope with this radical and ubiquitous new change, leading to a detrimental impact on physical conditions (e.g., deprived workplaces, limited resources) and social conditions (e.g., cohesion, psychological safety, and stress) in the new digital workplace (Fraser et al., 2020). In order to cope with changes and crises like COVID-19 can cause, organizations need to be more creative and digitalized in order to succeed in today's competitive and volatile business market (Rashid & Ratten, 2021; Nayal et al., 2021). People had little to some experience with WFH in virtual teams as they were used to predominantly working in a traditional in-office environment (IOE) with face-to-face interactions. This transition to digital WFH completely changed how a team collaborates and solves problems. After the abolishment of the lockdowns and restrictions, WFH did not pan out to be a mere setting during the two years of the pandemic.

Thence, WFH became not so "new anymore," which resulted in the blended model of the two (e.g., WFH and in-office). This resulted in the prevalence of "hybrid work". In the hybrid work model, teams exhibit a particular configuration of a combination of team members working in-office as well as team members that are WFH (Grzegorczyk et al., 2021) or an alternation where teams that work at least one day all together from home, and the rest of the week in-office (McKinsey, 2021). In contrast to conventional and virtual teams as those either fully WFH or in an IOE. Multiple studies have affirmed positive attitudes toward hybrid work models in the future as it turns out that employees desire to WFH more than in the pre-COVID-19 era (De Haas et al., 2020; George et al., 2022; McKinsey, 2021).

According to a survey by McKinsey (2021), the vast majority of 100 managers expect that (including all of the roles considered non-essential in-office) employees will be in-office between 21 and 80 percent of the time, ranging from one to four days per week. Therefore, it is expected that hybrid work will become the "new normal" in many industries across the globe. However, this transition can alter the physical and social conditions of the workplace environment due to multi-modal communication and mixed presence (digital versus physical presence), which can influence team collaboration and creativity (Reiter-Palmon et al., 2021). The aforementioned revolutionary changes from 2020 to 2022 caused a prevalence of a hybrid work environment, for most people now, work is becoming more something you do instead of a location you go to. In other words, "the future of work is here, and it is hybrid" (Microsoft, 2021, p. 2)

2 Problem statement

Hybrid work models are widely used across many industries and organizations. Therefore, organizations are increasingly being mixed with different levels of virtuality in hybrid teams via the increase of computer-mediated communication, digital collaboration tools, corporate remote work arrangements, and geographical dispersion (Faulds & Raju, 2021; Richter, 2020). When employees experience a change in the physical work environment (PWE), the social work environment (SWE) will also be affected by this (Leenders et al., 2003; Amabile et al., 2005). For example, in the extant literature, it is known that the digital working-from-home environment (WFHE) significantly changes and impacts the way of work how a team interacts compared to the traditional in-office environment (IOE) (Pataki-Bittó, 2021; Schilleci, 2022; Singh et al., 2021; Whillians et al., 2021; Maurer et al., 2022). Therefore, transitioning to a different physical work environment will sensitively influence a team's collaboration and social conditions. Thence, it can heavily influence the creative process because team creativity largely depends on collaboration and social interactions. During the COVID-19 pandemic, prior studies emphasized the conventional versus virtual teams dichotomy or only focused on the conditions of the digital WFHE (De Haas et al., 2020; George et al., 2022; Whillians et al., 2021; Maurer et al., 2022; Nolan et al., 2021), which resulted in a neglection of the hybrid blend of those two.

Therefore, the main problem is that extant literature did not yet research which physical and social conditions affect hybrid teams and how digital collaboration tools creativity as a process (e.g., audio plus video versus audio alone or the use of file-sharing technologies and physical versus digital presence) (Reeds & Allen, 2021; Reiter-Palmon et al., 2021). The complexity lies in the different degrees of virtuality within the hybrid work environment (HWE), which led to various study gaps across the hybrid literature span. This led to various study gaps across the hybrid literature span. In many cases, hybrid teams were even deliberately omitted and marked for future studies to research as a possible option for expansion (Eisenberg & Krishnan, 2018). If this gap in the literature is not going to be solved, organizations and managers will continue to have a lack of knowledge about how the social-physical conditions and digital platforms in the hybrid work setting influence team creativity, and the gap between theory and practice will remain open.

There are other reasons why the team creativity of hybrid teams has been neglected. Firstly, hybrid teams have become increasingly prevalent since the abolishment of the COVID-19 lockdowns and restrictions. Therefore, the HWE is relatively new in terms of research in comparison with its predecessors (e.g., IOE and WFHE) (Jaiswal & Arrun, 2020). Pre-pandemic studies emphasized moderating variables influencing creativity, such as; goal orientation, and leadership roles in conventional teams (Carmeli et al., 2010; Rosing et al., 2011). During the pandemic, only virtual teams regarding the value of psychological safety (Newman et al., 2021; Lechner et al., 2021), trust (Stoker et al., 2021), cultural tightness (Qin et al., 2021), and social value creation (Ratten, 2020), have been studied, but not in relation to team creativity. Secondly, team creativity is a general and broad term (Milbrandt & Milbrandt, 2011) consisting, according to Reiter-Palmon et al. (2021) of three stages: problem identification, idea generation, and idea championing. Idea championing is also commonly known as idea selection and evaluation. While there is a substantial body of research regarding how virtual teams perform in idea generation. Problem identification and idea championing

in virtual and hybrid teams remain understudied (Reiter-Palmon et al., 2021; Reed & Allen, 2021). With the exemption in conventional teams as those three stages have been researched in an IOE (Carmeli et al., 2013; Rosso, 2014).

Not only are the employees affected by the hybrid transition, but also the managers. Both employees and managers prefer to work in hybrid teams as they offer more flexibility in their work-life balance. In addition, hybrid work models provide a more tailored employee experience at times when they are most productive (McKinsey, 2022a). Leadership is one of the spheres that influence the effectiveness of hybrid teams (Contreras et al., 2020; Mitchell & Brewer, 2022), notably in how a team creatively solves problems and adapts to altered forms of workplaces (Gilson et al., 2015). Therefore, it is crucial that in the HWE, creativity as a process will be managed effectively.

According to the researcher's knowledge, no study has yet examined a twofold perspective (from managers and employees) in the HWE and how this affects team creativity. Thence, the challenges and layers of complexity that are incorporated within the HWE can be taken more into account as this study will show what and how physical-social conditions and digital collaboration tools affect team creativity. This will help researchers and organizations to understand the conditions of the hybrid workplace impacting creativity. In addition, this research paper will provide a constructed conceptual framework for hybrid teams. This framework can serve as a theoretical contribution to the literature and foundation to further studies. The researcher assumes that the gaps in the literature will be clarified and solved by examining this problem through an exploratory study and content analysis.

2.2 The purpose of this master dissertation

An exploratory study's primary goal is to develop new insights concerning a predetermined field of the societal and scientific topic of relevance (Saunders et al., 2016). In order to better comprehend team creativity, the research purpose is to explore the physical-social conditions and digital technologies in the HWE and how it can influence the three stages of team creativity. Prior studies urged to focus and discover how employees and managers in hybrid teams collaborate and creatively solve problems (Reeds & Allen, 2021; Reiter-Palmon et al., 2021). Since there is no theoretical framework for hybrid teams in the existing literature, one must be constructed based on a preliminary theoretical framework.

Based upon the problem statement, the gaps in the literature, and the goal of this master dissertation, the following research question, and sub-research questions have been formed:

Research question: Which physical, digital and social conditions influence team creativity in the hybrid work environment?

Sub-research questions:

1) Which physical conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?

- 2) In which way do social conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?
- 3) To what extent is each stage of team creativity affected by the digital collaboration tools? (problem identification, idea generation, and idea championing)?

2.3 Relevance of this study

The result of this research must be applicable on a scientific and societal scale. In order to fulfil the threefold goal of the study, new empirical insights into the creative process of hybrid teams must be given. Therefore, this master dissertation examines how the HWE influences team creativity from a multilevel perspective.

The relevance of this study is twofold as it contains a theoretical and practical part.

- From a theoretical point of view a better understanding of physical and social conditions (working methods) in the HWE is achieved by the use of a theoretical framework and literature review.
- 2) From a practical standpoint a profound investigated analytical perspective through an exploratory study based on qualitative interviews, resulting in new insights, opportunities, solutions and instruments for today's hybrid work challenges.

2.3.1 Scientific and societal relevance

It is difficult to find information on hybrid teams across the literature span as the levels of virtuality are rarely mentioned (O'Leary & Cummings, 2007), as well as structural forms (Fiol & O'Connor, 2005). In addition, throughout the literature, there have been several definitions of hybrid work, which makes it even more challenging and complex to understand hybrid teamwork (Sokolic, 2022). Through those reasons and the problem statement, the scientific and societal relevance of this master dissertation is threefold:

- 1) It can serve as a building block for future research about the effects of the HWE in teams.
- It can be a guiding tool for organizations to implement changes to foster physical-social conditions and digital collaboration tools in relation to creativity between employees and managers.
- 3) Future studies can use this explorative study as a foundation to unfold and tackle the challenges of team processes in a HWE

This type of research is unique because it provides results and discussions from a dual-sided perspective (employees and managers). In general, most studies either focus on the employees' or the manager's point of view (Mitchell & Brewer, 2022; Bell et al., 2022). In addition, the popularity of virtual and hybrid work practices provides an excellent chance for researchers to advance their knowledge and comprehension of how teams in a HWE can be managed effectively. Both parties must become more aware of how to cooperate and solve problems in a HWE effectively in order to give a theoretical and practical knowledge the physical-social conditions and digital collaboration tools that influence team creativity. In this manner, managers can alter their leadership style and effectively support their employees in creative efforts. Teams can collaborate and solve problems

more effectively by optimizing the HWE, its physical and digital resources and social conditions influencing creativity.

2.4 Structure of the master dissertation

This master thesis started with a preface and introduction, followed by a problem statement and the construction of a preliminary framework. This master dissertation is divided into the following three parts in order to give a clear overview:

- 1) A theoretical study part through the method of a literature review consisting of:
- Part 1: Hybrid work
- Part 2: Team creativity
- Part 3: Physical and conditions influencing team creativity
- Part 4: The history and gradual evolution of teamwork and settings from the early 1950s to 2023
- 2) A qualitative study part through the method of conducting semi-structured interviews:
- Part 1: Methodology
- Part 2: The findings and discussion
- 3) A result part of this study through findings, results and implications interviews)
- Part 1: Results
- Part 2: Conclusion
- Part 3: Limitations and recommendations for future research
- Part 4: Theoretical and practical implications

3 Literature Review

Doing a literature review clarifies how theoretical concepts and models relate to the research topic at hand. In addition, this literature review will provide a more profound knowledge of the evolution the physical and social conditions within conventional and virtual teams that affect team creativity. However, the literature review will be limited in relation how physical and social conditions affect team creativity due to the scarcity of research.

3.1. What is hybrid work?

A substantial body of studies attempted to define hybrid work over the last few years. However, all of those ended up having slightly different meanings. The plethora of these definitions has caused misunderstandings and complexities regarding hybrid work. Many people think that hybrid work is a combination of digital and conventional work. However, this is an inaccurate and incomplete description. Therefore, giving the full correct description of hybrid work is essential in order to understand it properly. Hybrid work can be defined in a twofold way:

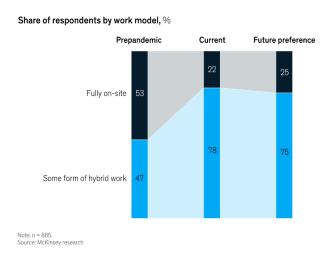
- An alternation of working in-office and WFH.
 Example: A team works two days per week in the office and the other three days from home
- 2) A combination of working in-office and WFH.

 Example: Some team members WFH during the day, while others work at the office (on-site)

To be considered hybrid workers, employees must work at least one-day in-office per week while WFH the rest of the week. (McKinsey, 2021). Sometimes employees can freely choose in which work setting they want to work; other times, they cannot choose due to mandates from their organizations or managers (Grzegorczyk et al., 2021). With the hybrid work setup, people experienced a mingled return to normalcy in the modern workplace with expanded and new digital forms of communication and possibilities (Microsoft, 2022; McKinsey, 2022b). Employees seem captivated by it, and are unwilling to let the hybrid work model go. The McKinsey survey (2022b) shows that during the pandemic many employees prefer to work hybrid.

Figure 1.

Share of respondents by work model. Adapted from Mc Kinsey, 2022b.



3.2 No-one-size-fits-all solution

Due to flexibility, globalization, and geographical dispersion, hybrid work cannot be erased in today's organizational landscape. Employees and managers cannot always be physically present on site. In the hybrid work method, there is no one-size-fits-all solution. Therefore, the hybrid work model may differ depending on the company, department, or industry. Several units within the organization can determine their hybrid work model. (McKinsey, 2021; Microsoft, 2022). According to Bloom (2021), there are three types of units that can select a hybrid work model:

- 1) Organizations: The organizations determine when employees must work in an IOE and when to WFH. Organizations can allocate office hours by days, hours, employees, or teams. For instance, the organization requires employees to work in-office on certain occasions or during certain team-related tasks (e.g., team meetings, meeting with clients, team collaboration in one of the creative problem-solving stages).
- 2) Teams: Teams and departments within the organization are allowed to choose their times, hours, and days to work in-office or from home in negotiation with their fellow team members. This method can be regarded as the: "The vast majority of the team decides."
- 3) Employees and managers: Managers give employees liberty and freedom concerning their preferred working hours and locations. Employees can determine whether they WFH or inoffice. This method can be regarded as the: "Individual decides to work hybrid based upon autonomy and flexibility in their own work schedule.".

3.3 Consideration of hybrid work models

Hybrid work models are expected to be prevalent in the IT industry (McKinsey, 2020) as they already incorporate many digital technologies for job-related tasks and communication (McKinsey, 2021). Employee preferences have an impact on the design of hybrid working models. Managers need to be aware of this and make suitable adjustments. For adopting effective hybrid work models, clear goals must be set, and employees' viewpoints and feedback can play a significant role in the process and must be considered. Therefore, before allowing flexibility in the workplace environment, managers consider and need to cooperate with broad business criteria, such as the team project's goals and deadlines. In addition, managers should attempt to identify the team's needs, such as the physical-social work environments where they feel most productive and creative concerning the well-being and creativity of their employees. Managers should consider timetables that assist employees the most in reaching these goals and deadlines. A company's existing hybrid work policies should be considered as an experiment that can be modified over time in response to evolving conditions. (Bingham, 2021). Thus, feedback loops and communication between managers are crucial for a hybrid work environment to be effective. However, little is known about how the conditions of the hybrid workplace through team collaboration between managers and employees influence creativity.

3.4 What is creativity?

For decades, scholars and professionals have been interested in the topic of creativity (Amabile & Pillemer, 2012). Most academics would describe creativity in the work environment as the generation of novel, valuable and functional ideas (Harvey, 2014; Fisher & Barret, 2019) that have been recognized to play a crucial role in innovation (Akinola et al., 2019). Despite this observation, creativity has always been challenging to define, as it is a complex field with multiple stages, types, and contexts. Firstly, creativity can intersect on three contexts: individual, team, and organizational (Anderson et al., 2014). Secondly, there are four types of creativity, which are: creativity as a product, creativity of a person, creativity as a process and creativity as a place (Runco & Kim, 2013). For the purpose of this thesis and to close the gaps in the literature it will only focus on creativity as a process; happening in a physical-social work environment.

In order to be creative, individuals and teams must be novel, original, and beneficial to be potentially valuable for organizational development and innovation (Amabile & Pratt, 2016). Creativity has often been regarded the same as innovation. However, this is incorrect, as creativity and innovation are two different concepts (Anderson et al., 2014). Innovation is all that humans do today, better than what they used to do before in accomplishing novel things or breakthroughs, while creativity is thinking up those new things (Damanpour & Schneider, 2006). Thus, innovation is reaping what you sow in creativity. However, the unique thing about creativity is that it extends beyond original thought. Individuals and teams can exhibit different forms of creativity; some bottle up their innovative ideas, while others let them bubble to the surface (Kabukcu, 2015).

3.4 Individual and team creativity

The first context where creativity was understood was on an individual basis. Amabile (1988) could build the foundation for the team and organizational creativity by understanding individual creativity. Individual creativity is sparked by thinking and has been linked to personality traits, cognitive skills, and processes (Chávez-Eakle et al., 2012). According to Thompson (2018), the mind is the central "platform" of creativity. The capacity of the human mind to create new kinds of images is the foundation of creativity. This means that new associations of ideas lead to the solutions of solving new kinds of problems or the discovery of uncharted areas (Pelaprat & Cole, 2011). Knowledge and previous experiences provide a solid foundation for creativity, but imagination is the source of it (Walia, 2019). Notably, it was Albert Einstein (1931) that said: "Imagination is more vital than knowledge, and creativity happens when an individual can think outside the box (p.94)"

The second context where creativity was studied was on a team basis. When creativity is encouraged, radical and incremental creative thinking in teams have also become essential to organizational success. Through the increased usage of teams, organizations have transitioned from a hierarchical and static structure to a more dynamic, team-oriented, and cross-functional structure (Reiter-Palmon et al., 2011; Kozlowski & Bell, 2013). Many people know what teams and creativity are, but team creativity is a more complex field to explain (Harvey, 2014; Reiter-Palmon, 2018; Taggar, 2019; Reiter-Palmon et al., 2021). Therefore, for clarification and the purpose of this thesis, teams are characterized as groups of people with talent, drive, and expertise, where a collective potential to be creative becomes larger than the amount of individual efforts as team creativity does not occur when

individuals work alone but rather when they collaborate. Team creativity has relevance when individual and collaborative needs are balanced (Csikszentmihalyi, 1997; Chaharbaghi & Cripps, 2007).

Team creativity has potential advantages and disadvantages in comparison with individual creativity. In general, teams generate more novel, valuable and versatile ideas than individuals do (Harvey, 2014; Amabile & Pratt, 2016). However, the disadvantage is if one individual lacks to work, the entire team will suffer the consequences. In other words, individual and team creativity depend on each other; one cannot function properly without the other and vice versa (Dong et al., 2017). Teams are formed when the task is highly complex and when the team recognize that in order to finish the product or present a solution involvement and creative thinking from the entire group is required (Forsyth, 2014).

3.4.1 The three stages of team creativity

There are several definitions and types of team creativity and creative problem-solving is one of them according to Reiter-Palmon et al., (2021). However, for the purpose of this study and to avoid any complexities it will be called team creativity. Team creativity is a broad and general term as it contains different stages and dimensions (Milbrandt & Milbrandt, 2011). It consists of the following three stages:

- 1) Problem identification: is the first stage in team creativity, commonly known as problem construction. It is the process of defining the aims and goals of a problem-solving effort and creating a strategy to design, organize and guide direct problem-solving
- 2) Idea generation: is the second stage in team creativity. It is the forming of ideas and is referred to as idea creation or ideation. It is a creative process that involves coming up with, developing, and communicating novel, functional and valuable ideas and concepts that serve as the cornerstone of an innovation strategy
- 3) Idea championing: This is the third and final stage of team creativity, commonly known as idea selection and evaluation. Idea championing refers to examining ideas in light of particular standards or objectives and then choosing one to implement in order to solve the problem (Reiter Palmon et al., 2021).

While there is a substantial body of studies on idea generation, there is not much known regarding the other two stages of team creativity in virtual and hybrid teams. A significant distinction between team and individual creative models is that there is an additional layer of complexity due to the level of team dynamics (Reiter-Palmon et al., 2021). Team dynamics are influenced by physical and conditions which can have a huge impact on team creativity (Amabile & Pratt, 2016; Reiter-Palmon et al., 2021). Individuals engage in creative processes, but these processes need to be supported by physical and social conditions if they are to produce creative outputs at team level. Therefore, employees and managers need to collaborate through knowledge sharing in order to understand each other's views and perceptions (Cooke, 2015; Reiter-Palmon, 2018).

3.4.2 Knowledge sharing

Employees receive and share their information through internal and external knowledge sharing. Knowledge sharing means that certain (inter)actions are involved in the exchange of knowledge between individuals, teams, and organizations (Tønnessen et al., 2021).

There are two types of knowledge sharing:

- 1) Internal knowledge sharing (IKS): is the knowledge that exists and is shared within the organization's walls. It is mostly based on the knowledge and experience that current employees of organizations already possess.
- 2) External knowledge sharing (EKS): is the knowledge that a company or representative shares with external parties (e.g., clients, consultants, or partners). This is knowledge and experience that the organizations do not possess themselves but come from external parties or resources (Yang, 2004).

Both of these are forms of traditional knowledge sharing (TKS) when knowledge is shared face-to-face in-office. While business landscapes and offices have evolved over time, many employees currently use a form of digital knowledge sharing (DKS). This means that knowledge is shared via people through digital tools and applications. DKS can also occur internally as well as externally within team or organization (Luo et al., 2021). According to Jaiswal & Dhar (2015), an organization's creative climate is crucial in influencing knowledge-sharing behaviour between managers and employees. This is because a shared understanding between those parties encourage idea generation. Whereas a the implementation of those unique ideas drive an organization's innovative climate. Knowledge sharing involves being willing to question established work practices, promotes research and generation of new ideas, as it assemblies knowledge from both internal and external parties (Tønnessen et al., 2021).

3.5 Team leadership

In workplaces, a leader or manager's primary responsibility is to ensure that employees execute their job activities in accordance with the established work schedule (Bell et al., 2022). Several aspects are required for successful leadership in a team in order to guide cooperation and creative problemsolving. Those are often achieved through cognitive and effective leadership structures (Muzzio & Gomes Paiva Júnior, 2018). According to Rickards and Moger (2000), managers and leaders can alter the degree and scope of the team's collaboration and creativity through the following eight aspects:

- 1) Empathy and understanding: Which entails respecting your team's shared ideas and viewpoints
- Shared vision: Leaders must give their team members the feeling that they have a sense of (social) belonging and connectedness, a shared goal, and accountability for the team's development.
- 3) Climate: A great collaborative physical-social work setting where team members and leaders share, generate, evaluate and select ideas with each other
- 4) Resiliency: The leader strives for the principle to make the team flexible, but also helps them

- to fulfil their expectations even through frustrations and difficulties
- 5) Idea creators and owners: Employees that develop concepts should have the full support of the team (e.g., leaders and co-workers)
- 6) Network activators: Leaders that effectively communicate via a social network that leverages additional unique and practical skills to the team
- 7) Knowledge: Having the general knowledge and resources to assist the team in creative problem-solving
- 8) Learning from experience: Support for independent learning, development changes, adaptability, eagerness and openness to learning, stimulating creative thinking by taking lessons learned from the past

According to Rickard and Moger (2000), these eight leadership aspects facilitate the emergence of team creativity. Creative leadership requires planning that emphasizes the value of creativity, encouraging the diversity of creative talent and encouraging communication between themselves and their employees. This enables the competency in team-building in a helpful way that leverage higher levels creativity (Amabile, 1997). Creative leadership is founded on internal and external knowledge sharing. The leader who wants to improve team creativity must cherish and promote the norms, values, and cultural climates that generate novel, useful, and functional ideas in accordance with effective application tools (Muzzio & Gomes Paiva Júnior, 2018).

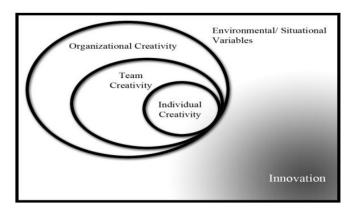
3.6 Conditions influencing creativity within the workplace

During the research of organizational creativity, researchers have found additional dimensions. Organizational creativity affects individual and team creativity, which is regarded in the existing literature as the inter-communion between the individual, team, and organizational contexts (see Figure 3). According to Kallio & Blomberg (2009), physical and social conditions can positively or negatively affect creativity in the workplace, depending on the attributes of each variable and environmental/situational impacts. The workplace environment can be influenced by the following two primary conditions.

- 1) Physical conditions
 - Influencing the PWE; refers to the indoor setting the team operates in
- 2) Social conditions
 - Influencing the SWE; refers to the social setting a team operates in

Figure 2.

A framework of creativity. Adapted from Kallio & Blomberg, 2009.



A social factor that can influence creativity is a leadership style. Each leadership style can have different effects on team creativity depending on the work setting (e.g., IOE, WFHE, or HWE) (Mitchell & Brewer, 2022). Understanding the context in which creativity is examined is crucial because it can influence the team's creative outputs (problem identification, idea generation, and idea championing). Both physical and social conditions influence team creativity through internal and external levels. In both of those levels, effective communication is necessary, as teams are about combining and integrating creative input from their co-workers to create novel ideas through knowledge sharing. The more a team interacts, the more likely it is for an idea to cross-fertilize, which fosters idea generation (Fischer & Barret, 2019).

3.6.1 Physical conditions influencing team creativity

Prior studies have focused on the tangible physical aspects (e.g., architectural design, office layout, furniture, and decoration) of interior environmental settings. The physical interior environment refers to events, things, or conditions that surround a person and occur within their specific bounds (Merriam-Webster, 2022). Those support the creative design thinking businesses want to undertake (Meinel et al., 2017; Perolini, 2014). In-office designs impact job resources, employees' work-related behaviour, and creativity (Dul et al.; 2011; Martens, 2011). In addition, the physical components and resources can spark creative thinking and solutions. Therefore, strengthening those in the PWE tends to result in more creative ideas and solutions (Amabile, 2011). Organizations can strengthen intrinsic motivation, creativity and productivity in two ways:

- 1) By providing digital and physical components or equipment, such as; adjustable desks and chairs, televisions, cameras, and screens (Golsteijn et al., 2021).
- 2) The ergonomic design of the workplace, such as; spaces, windows, ceiling and wall colours, lighting, and noise tempering (Dul et al., 2011; Martens, 2011).

On the other hand, organizations can hamper team creativity by placing strict deadlines on projects that require team skills and depriving them of resources through reorganization, retrenchments, or simply not listening to the employees' desires regarding the requested physical or digital components, equipment, or ergonomic design. The organization can influence team creativity through modifications in the PWE by establishing informal networks and (digital) communication tools.

According to Elsbach & Hargadon (2006), allowing employees to decorate and design their own work environments lead to a better structure throughout workday so workers can alternate between mentally taxing tasks and thoughtless ones. They propose doing 'mindless' activities like moving around, conducting maintenance work, copying, and simple repetitive production line operations within the office environment. These breaks from the intense cognitive effort not only increase the likelihood of creative thought by lower perceived stress levels and boosting intrinsic motivation , which all can contribute to higher levels of social belonginess and connectedness. For these reasons, organizations must give freedom to their employees based and listen to what the team desires rather than wait for eureka moments. (Serat, 2009).

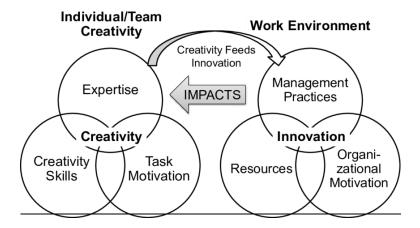
3.6.2 Social conditions affecting team creativity

During the evolution of social psychology, researchers have examined how team creativity occurs and what kind of social elements are affected by it. Amabile (1996) developed a Componential Theory consisting of internal and external factors that affect team creativity in a complementary way:

- 1) The first internal factor: Expertise, field-relevant skills (e.g., knowledge, practical skills, productivity, and initial talent in the relevant field(s) of pursuit
- 2) The second internal factor: Creativity skills, which are relevant to the stages of team creativity (e.g., personal characteristics; such as; willingness to learn, flexible cognitive style, and creative-thinking skills)
- 3) The third internal factor: Task motivation, consist of motivational variables that determines individual and collaborative efforts to complete the given task or solve a problem
- 4) The single external factor: The SWE, which can influence all three of the internal factors within creativity

Figure 3.

The Componential Theory. Adapted from Amabile, 1996.



3.7 The workplace environment

Organizations require creative teams who can develop novel, valuable, and practical ideas (Harvey, 2014; Fisher & Barrett, 2019). Therefore, the workplace environment must be set up in a way that fosters creativity for both individual and collaborative team efforts (Dul & Ceylan, 2011). According to Cekmecelioglu and Gunsel (2013), creativity and innovation are essential across tasks, processes, and occupations in today's globalized, fast-paced, and evolving business landscape. Therefore, Mullins (2016) notes that an innovative organizational workplace and culture are required to survive in complex and volatile times and surroundings. As a result, organizations are realizing more and more how critical active employee engagement is for the greater collective good within the work environment of teams. Depending on the industry, some employees engage better in one work setting than others. Currently, there are three main work settings in the business landscape:

- 1) The IOE, which consists of open-plan, private, and closed offices
- 2) The WFHE, which consists of a working office in the home
- 3) The HWE, which consists of both a combination and alternation of the WFHE and IOE

3.8 Pre-COVID-19: The traditional office setting

Throughout human history, many workplace environments have been utilized to execute job-related activities successfully. Before COVID-19, the traditional IOE was the dominant work setting. This work setting consists of open-plan offices and closed offices. Both have their unique advantages and disadvantages in terms of influencing team creativity. The subsequent chapters of this literature review will explain the definition, history, strengths, and weaknesses of current workplace realities.

3.8.1 Open-plan offices

Open-plan offices have evolved into the standard configuration for office space for a variety of job tasks. Early in the 1970s, it increased its peak of popularity as many firms switched from their prior designs (e.g., factory floors) to open-plan offices. Open-plan offices can range from "Bullpens" to "Bureaulandschafts." Bürolandschafts, is a German term, and commonly known as landscape offices or desk landscapes. "Bullpens" are a form of open-plan offices and have an informal space where employees work together in one large room (Samani & Rashid, 2014). There are two primary reasons for the development and use of those offices.

- The financial reason: Centres on the notion that many workers can be accommodated in one large open area. This leads to more efficient use of the workspace and lowers the cost of real estate.
- 2) The problem-solving reason: Is the idea of incorporating open-plan solutions. Through physical nearness, employees encounter shorter communication lines. Therefore, employees share more open forms of instant collaboration and (social) interaction, which interchangeably fosters knowledge sharing. Face-to-face interactions are their primary form of communication (Samani & Rashid, 2014).

Stryker (2009) discovered that face-to-face communication rises by 60% in an open-plan environment, which fosters traditional knowledge sharing. In addition, the study showed that physical nearness in an open workspace boosts face-to-face interactions between colleagues by 84%. For example, open and adaptable areas for team interaction encourage employees to ask their co-workers for advice, support, and information, enhancing the value of and generating ideas (Portillo & Dohr, 2011; Landy et al., 2013). Therefore, desk sharing and interaction share a positive relationship. Brainstorming sessions, managerial supervision, employee engagement, and reporting successes are all ideally done in an open-plan office (Serrat, 2009). Face-to-face interaction is the highest medium of communication (Smith et al., 2018). Hence, an approach that requires more presence in an open-plan office will often lead to a higher degree of trust from the leader. Another advantage is that open-plan offices are hugely accessible for optimal flexibility and inspiration (Samani & Rashid, 2014).

Despite the many benefits of open-plan offices, one disadvantage of open-plan offices is that they are phrone to more environmental distractions than closed private offices. This results in a lack of privacy, interrupted work activities, less concentration, and more time-related and management issues. In addition, frequent contact and interruptions of co-workers and meeting their requests can

can increase the state of stress. (Samani & Rashid, 2014). The open-plan office is more vulnerable to an uncontrollable environment as it is filled with other people whom all have different view, desires and preferences designing the ideal PWE, such as; the lighting, ceiling, furniture, walls, colors. All of those can have an impact on the employees' creativity and productivity (Dul & Ceylan, 2011; Martens, 2011).

3.8.2 Closed-offices

A closed office can also be called a private office because it provides private rooms or spaces for each employee. This office setting is also part of the traditional work setting. This office was typically designed for a work method with a separate space for each employee consisting of cubicles, and separate rooms. Each room or space is assigned to a department, an individual, or a team within the company. Many of those private or closed offices are in close proximity to each other (Office Reality, 2021).

Closed offices are a great alternative for employees who value their privacy and prefer not to have their work interrupted by noise or sound pollution. Therefore, some companies switched from an open-plan to a more closed work environment in order to listen to the staff's feedback. In this manner, employees could focus more on their tasks due to fewer disruptions or distractions from others. In addition, it leads to fewer social confrontations and conflicts. This helps the employee to have a free and focused mind, as creative work requires a peaceful and calm environment (Samani & Rashid, 2014). On the other hand, the closed-office setting is not beneficial for leaders or supervisors as they need a more transparent overview of what their employees are doing. They need to move from office to office in order to check on the employee's behaviour and activity. Also, employees can misuse their privacy, work less on job-related tasks, and be more of a 'free-lifter' in a closed-office environment. In a closed office, there is reduced perceived communication among the employees as they are in a less open interactive position (Office Reality, 2021).

3.9 Mid-Covid-19: Forced to go digital

During the pandemic, the traditional way of working turned upside-down wholly to minimize the spread of the virus. People were forced to set up a digital home office. The primary form of communication switched from face-to-face to digital interactions with digital platforms (Bhatia & Mote, 2021; Carroll & Conboy, 2020; Richter, 2020). While this work environment was relatively new for everyone, it caught many people by surprise that working digitally had numerous advantages. However, in contrast, this work environment also has its disadvantages. Therefore, the digital WFHE, its advantages and disadvantages, and its effects will be described in the subsequent chapters.

3.9.1 Ground breaking discoveries in the home office

Many people thought that WFF was relatively new to everyone when the pandemic hit the globe in March 2020. However, that is not true, as it dates back centuries ago. In the year 1666, the Great Plague struck London. During the problematic period, King Charles II already had to enforce a

lockdown. It was already common during this time that people transformed their homes into a workplace (Tønnessen et al., 2021). The home can be a source of creativity as it allows people to think outside the box without getting interrupted by others (Collins, 2020). The same year led to Newton's "year of scientific miracles and wonders," leading to astonishing and ground-breaking discoveries and theories; the most famous one was the law of gravitation. WFH sparked Newton's creative skills. Once again, it proves that crises lead to extraordinary circumstances, as it has been proven on a regular basis that those can help enlighten creative minds, often leading to new and ground-breaking ideas and discoveries that revolutionize the world with new innovations. The internet, globalization, new emerging (digital) platforms, and technologies are some great examples of this (Tønnessen et al., 2021).

3.9.2 The effects of the digital home-office

COVID-19 led to a prevalence of digital-smart home offices (Maalsen & Dowling, 2020). The WFH is where an individual executes job-related tasks from their home office via computers, phones, WiFi, or other electronic devices (Allen et al., 2015). According to a study by Cuerdo-Vilches et al. (2021), 33% of the study's respondents' home offices were incompetent during COVID-19. They were inadequate its size, number of occupants, access to digital and physical resources, room size, and furnishings. A poorly furnished home office may have a variety of unfavourable effects, including ergonomic problems or decreased productivity which can cause distractions (Gerding et al., 2021) Therefore, choices for hybrid working styles by employees or managers may be influenced by the availability of a suitable ergonomic home office.

This is significant as the difference with the WFHE compared to other ones is that people rely on digital forms of collaboration, and not physical presence with face-to-face interactions. In other words, physical knowledge sharing became digital knowledge sharing (Brem et al., 2021). Employees are connected through digital platforms via networks and can see and speak to each other in real-time (Elia et al., 2020). Despite this, several studies concluded that digital technology is not a replacement but a supportive 'substitute' (Whillians et al., 2021; Maurer et al., 2022; Schwarz et al., 2020). However, at this point in time the workplace and way of work has evolved to an extent that humans are highly dependent on digital tools and applications, such as; file-sharing tools and video conferencing services (e.g., Zoom, Skype, Google Meet, SharePoint, Dropbox, and Google Drive, etc.) (Reed & Allen, 2021; Mburu, 2020; Maurer et al., 2022). Without those, people cannot do their work properly, whet ether that is in-office or the digital WFHE. Because digital platforms are widely used in team collaboration (Van der Meulen et al., 2019), which influence the stages of team creativity (Reiter-Palmon et al., 2021, Reeds & Allen 2021).

3.9.3 Team collaboration in the home-office

Team collaboration in the WFHE occurs via the use of digital tools and applications as those are crucial knowledge facilitators in modern businesses (Lee, 2018). Therefore, WFH can favour knowledge sharing despite being geographically dispersed from colleagues (Van der Meulen et al., 2019). According to Cai et al., (2020), social interactions mediated by digital tools and applications

can be just as crucial to the influence of team creativity as being physically present in an IOE. DKS transcends the typical information transfer process and should be viewed as a social factor in team creativity (Charband & Navimipour, 2016). For example, nowadays knowledge is often digitally transferred via Agile. When teams do Agile work, those teams usually have a scrum master. This is someone who is mastering a team project and is experienced in this agile way of working. This person supervises and advises the team in the creative process (Cooper, 2016).

4 Methodology

In the methodology chapter, the methodological decisions used for this paper will be identified, explained, and justified. Firstly, the research method will be described. Afterward, the research design, study setting, sampling method, and unit of analysis will be thoroughly explained. Finally, a complete and detailed description of the data collection, ethical considerations, and data analysis will be provided.

4.1 Research design

The qualitative research method of this study consists of multiple work environments (situations) studied through semi-structured interviews (SSIs). Since this research is exploratory, the reason for conducting SSIs was to obtain in-depth information about the participant's experiences and viewpoints. The interaction between the interviewer and the participant enables the possibility to record everything that is shared (Bhandari, 2020). The research design of this study has been created to serve the purpose of this study, which was to explore the physical-social conditions and digital collaboration tools in the HWE and how they can influence (the three stages of) team creativity. In order to reach this goal, not only the employees were interviewed. According to a study by Gilson et al. (2015), leadership has an influential role in changing workplace realities. Therefore, managers were interviewed as well. According to Bergelson et al. (2022), an interview selection method with a dual-side perspective (e.g., managers and employees) to study the research topic at hand avoids bias. For those two reasons, both managers and employees were selected as participants in the study. In addition, a dual perspective will provide richer empirical insights for this study, which further research can reliably build upon. In order to reach the purpose of this master's dissertation, a conceptual framework was developed concerning hybrid teams. This new conceptual framework was constructed based on qualitative data analysis.

4.1.1 Constructing a preliminary framework

Since the nature of the study is exploratory qualitative research, this constructed preliminary framework is based on extant literature and the problem statement in order to answer the research question: What conditions drive team creativity in the hybrid work environment? This preliminary framework is used only to design the interview questions. Because exploratory research suggests that the framework can be constructed at the end based on primary data (Saunders et al., 2016). All types of work environments are covered in the inputs (e.g., in-office, hybrid and virtual work environment).

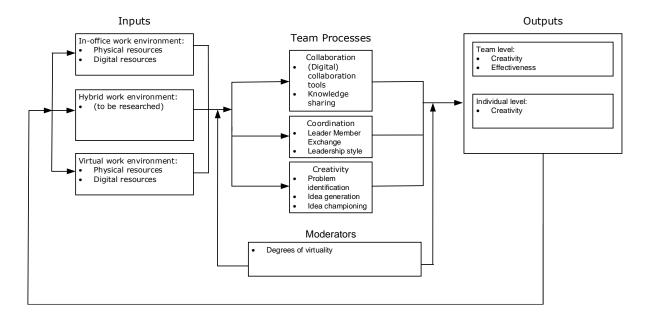


Figure 4.

Theoretical framework designed by the researcher based on extant literature. The researcher used Dulebohn & Hoch's (2017) framework as an inspiration.

Those work environments will be compared through a qualitative data analysis based upon the following matrix. This matrix illustrates which axes are going to compared. The y-axe is the degree of virtuality and the x-axe is team creativity. The degree of virtuality determines the social conditions of individuals and teams, which in turn influences team creativity. Consequently, on the existing literature and problem statement the following matrix was developed.

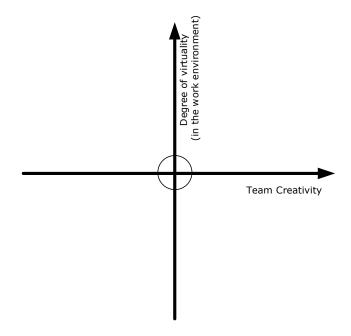


Figure 5.

Matrix developed by the researcher.

4.1.2 The study setting

The interviews for this study were conducted in a non-contrived setting. Despite the fact that the COVID-19 restrictions and lockdowns have been abolished for several months, the vast majority of the interviews were conducted in a non-contrived online setting. Nowadays, it is more common to communicate, collaborate and conduct interviews via digital tools and applications. Conducting interviews through digital platforms contains some advantages, such as; more flexibility and cutting travel costs and time (Schwarz et al., 2020; Dahik et al., 2020). Through those reasons the researcher could plan the interview in accordance with the preferences and wishes of the interviewee. A major reason for doing it this way, was to increase of potential candidates to participate (Deakin & Wakefield, 2014). The setting was based upon the interviewee's preference. Therefore, the 12 interviews were conducted online via Google Meet or Microsoft Teams.

4.1.3 Semi-structured interviews

SSIs were chosen as those allow for the collection of qualitative data that provides insights into participants' thoughts and decision-making. The benefit of a SSI is that the conversation is more personal and social, without any influence from others (Adams, 2015; McIntosh & Morse, 2015). In addition, most qualitative data collection methods for interviews use semi-structured procedures (McIntosh & Morse, 2015).

SSIs do not consist of a preset or fixed list of questions. Despite this, there are multiple benefits of conducting SSIs. During the interviews, there will be one main question per theme. During a SSI approach, there is room and freedom for follow-up questions (e.g., why and how). A great advantage of SSI is that interviewers can ask further beyond depending on how the interview will pan out. This is a great addition if researchers want to gain new empirical insights within the research topic. Therefore, many questions in the interview will begin with "How" and "What" in order to increase the rich empirical volume and depth of data (Saunders et al., 2016). This selected research method will help to answer the research question of this master thesis: What conditions drive team creativity in the hybrid work environment? However, it is essential to state these were executed in an ethical and responsible manner (see section Ethical considerations) in order to collect appropriate data without missing any relevant information. Some participants might be extroverted, and others introverted, meaning some are more willing to share more information during interviews than others based on their character (Shehni & Khezrab, 2020). Therefore, the likelihood exists that each interview does not consist of the same number of questions and is in the same chronological order (Saunders et al., 2016). Since there is no fixed list of questions, the questions to the managers were from a. different angle than the employees in order to compare and contrast data in the findings and result section.

4.2 Sampling method

Purposive sampling was chosen as a sampling method because of the exploratory nature of this study. Through the purposive sampling method, researchers can recruit adequately qualified and competent participants who possess expertise, knowledge, skills, and experience, which can lead to profound and in-depth data for the research purpose and relevance (Sharma, 2017). In addition, the work environments (cases) must be selected in order to advance knowledge of conditions influencing

creativity between team members and managers in the HWE. Therefore, the participants needed to fulfill the following five criteria ¹ to be eligible for the interview:

- 1) Participants are required to have experience working and cooperating in hybrid teams and settings (a combination and alternation of IOE and WFHE).
- 2) Some of the participants must work in conventional teams (IOE).
- 3) Some of the participants must work in virtual teams (WFHE).
- 4) Participants preferably need to be an employee or manager from the same team and company.
- 5) Participants preferably need to work in the IT industry.

4.2.1 The IT industry

There are several reasons why there has been opted for the IT industry. Firstly, according to a survey by McKinsey (2020), based on 2000 tasks, 800 jobs in 9 countries. The IT industry is in the top 4 of having the highest potential for hybrid work. Secondly, ICT technologies are large substance of IT and play a major role in virtual and hybrid work (McKinsey, 2022b). Thirdly, the IT industry is the most vibrant one in Europe at the moment (Statista, 2021). According to a report by Eurostat (2021), IT professionals are the third highest demanded knowledge. Expectations are that the IT industry will continue to proliferate in the upcoming years because, according to Eurofound (2022), 49% of respondents worked in a HWE after the pandemic. Most employees prioritize having flexible hours. 36% of the respondents stated they desired to work less than three days per week in the office. Finally, extant literature show that most IT jobs are in a hybrid or virtual work environment (Grzegorczyk,2021; Sokolic, 2022).

4.2.2 Company selection

In Table 1, there is a clear overview of the participants that have been interviewed. The researcher selected these participants based on their job position (manager or employee), work setting, and industry to fulfil the relevance of the study (see section 2.3). Initially, the purpose was to gather participants from the same industry and field of operations. Unfortunately, that was not always possible, as Table 1 display. The companies differ from one another in terms of the following:

- 1. Geographic location
- 2. Market segment
- 3. Size

4. Company's mission

¹ *Note.* Participants needed to operate in three different work environments (e.g., in-office, hybrid and virtual work environment) in order to compare and contrast for 'what' works in which environment and 'how', and 'what does not'.

Table 1.Overview of case and participant selection.

Nr.	Company	Job position	Industry	Work	Company	Nature of	Duration	Country
	(anonymized)			setting	size	the interview		
1	(TFS)	Employee	IT	Hybrid	1800	Videocall	47:51	Netherlands
2	(KD)	Employee	IT	Digital	40.000	Videocall	1h 18.51	Germany
3	(M)	Employee	Food	Hybrid	6300	Videocall	1h 16.48	Netherlands
4	(SF)	Employee	IT	Hybrid	79.390	Videocall	40:29	Ireland
5	(HB)	Manager	Industri	In-office	1200	Videocall	52:14	Netherlands
			al					
6	(K)	Manager	IT	Hybrid	9452	Videocall	1h 27:40	Netherlands
7	(AC)	Manager	IT	Hybrid	738.000	Videocall	55:15	United States/Europe/Asia
8	(GS)	Employee	Industri	In-office	78	Videocall	52: 43	Netherlands
			al					
9	(K)	Employee	IT	Hybrid	9452	Videocall	59:17	Netherlands
10	(AC)	Employee	IT	Digital	738.000	Videocall	1h 08:16	Netherlands
11	(WB)	Employee	Housing	Hybrid	352	Videocall	1h 19:55	Netherlands
12	(WB)	Manager	Housing	Hybrid	352	Videocall	42:17	Netherlands

Note. All participants in Table 1 were contacted via LinkedIn, or e-mail. Four of the interviews were conducted in Dutch and have been translated into English. In order to safeguard the participants confidentiality names and company names were anonymized. See Appendix for company information.

4.3 Unit of analysis

The unit of analysis consists of employees and managers that work in a HWE. In total, 12 participants were interviewed. At this number of interviews, saturation was reached as the researcher conducted two more interviews afterward, but also those two last interviews contained very similar empirical insights. More interviews after saturation have no effect as, at that point, no new empirical insights will be gained (O'Reilly & Parker, 2013; Walker, 2012).

Before the start of the interview, the researcher informed the participants about the length of the interview. In addition, general principles (e.g., consent form) (see Appendix 2) and information about the interview and the research topic (see Appendix 1: were explained before the interview started. This was done initially by mail (see Appendix 4). Each interview was scheduled to last between 1 hour and 1 hour and 30 minutes. Each participant (employee or manager) was interviewed regarding the physical and social condition in their work environment (e.g., IOE, WFHE, HWE) and how it influences the three stages of team creativity.

The primary reason for this selection method is to have a multi-level perspective from both managers and employees in different work environments for the content analysis. In many cases, the managers will share the success of a creative project. While in some cases, the manager's view can be biased as that is the person held accountable for the project's success. Employees or teams can share a different point of view on the subject than the manager. Both sides need to be heard to avoid bias (Bergelson et al., 2022) toward the team creative stages (e.g., problem identification, idea generation, and idea championing) in team projects in order to maintain the validity and reliability of this research. Therefore, it will be imperative that responses from both participants will be compared and analyzed for similarities or contradictions. These analyses can contain profound results on the team's form of collaboration in creative problem-solving in a HWE.

4.4 Qualitative data analysis

The reason for conducting qualitative data analysis is to analyze raw data and transform it into reliable and viable results to draw conclusions. Further studies can increase their knowledge and build upon this research through the researcher's use of data analytics. The purpose of the data analysis is to dive deep into the underlying experiences of the respondents and identify patterns in their empirical insights regarding the hybrid work environment.

4.4.1 Data collection

Secondary data has been utilized to identify the gaps in the extant literature. The goal of the research is to explorative and to identify patterns of both managers and employees in a HWE. Based upon the data analysis and develop a new conceptual framework for hybrid teams (see Figure 7), which is developed by the researcher of this study. The variables of the conceptual framework will be established through primary data (e.g., interviews), which will be coded and analysed. Thus, this

study will employ primary data to answer the research question; What conditions drive team creativity in the hybrid work environment?

The interviews were audio recorded in order to turn the verbally provided information into data. Transcripts were written based on the audio recordings and uploaded into NVivo. NVivo is a program that facilitates the analysis of qualitative data. The transcripts were analysed in NVivo, parent and child codes were created in order to cluster the data together. The major reason for using this program is that qualitative researchers often analyse a variety of data types in their analysis. Nvivo enables to structure and store qualitative data and document. Therefore, it is well-suited to prepare for content analysis by organizing and storing interview transcription. (Dhakal, 2022). Multi-level perspectives and insights were collected through coding with NVivo based on content analysis to answer the sub-research questions and the RQ. Afterward, data analysis was conducted where empirical insights from both managers and employees were contrasted, compared and subtracted to compare "how" and "which" physical and social conditions drive creativity in the HWE.

As the nature of the study is exploratory, inductive coding was used as the coding method. A researcher begins by gathering data that is pertinent to research topic at hand. By using the inductive coding method, which involves collecting data, clustering the data, and analysing patterns within the data, and then theorizing from the facts to conduct research. In order to create a theoretical framework that, the researcher will examine patterns in the data by contrasting, comparing and subtracting them. This enables the research to go from a specific set of the participant's experiences to a more general set of propositions about those experiences (Blackstone, 2012). On the next page, in Figure 8, an overview is displayed about the themes and sub-themes that were coded.

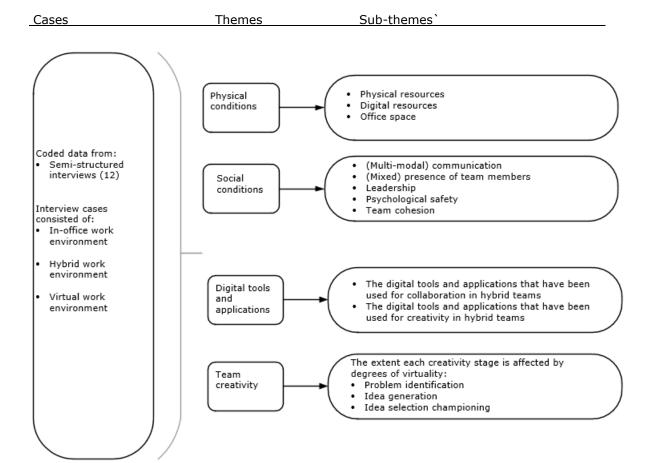


Figure 6.Overview of themes coded in the qualitative data analysis.

4.4.2 Ethical considerations

To conduct this explorative research in an ethical manner, the researcher respected and addressed this topic to the interviewees (Dooly et al., 2017) to adhere to all ethical standards of the General Data Regulation Protection (GDPR). All interviewees received information about the background and the goal of the master thesis in advance. The participants received no information beyond what was required for an ethical study approach. All interviewees consented to the handling of personal data by accepting the terms of the GDPR consent form (see Appendix 2). The 12 interviewees approved that the researcher could record and store the interview and other required data for the study. Before the interview started, participants were advised of their rights when partaking in the qualitative nature of this research.

Any information received from participants was entirely voluntary. All participants were allowed to withdraw from the interview at any time and for any reason. All personal data was kept in strict confidence and only for the length of this study. All interviews were conducted in accordance with UHasselt's GDPR's ethical standards and privacy rules (UHasselt, 2022) and with the participant's preferences. Ethical considerations were kept in place as the names of the companies and participants were anonymized. Only the companies' first letters of their names used or an abbreviation was stated, and participants were referred to their participant number and not their

name. Non-disclosure agreements were signed by the companies in order to disseminate the findings and images taken at the company's site. In addition, other images used throughout this thesis were derived from a website that supports copyright-free pictures. The legal simplicity of this website (www.pexels.com) is also stated in Appendix 3.

5 Findings

The vast majority of the 12 interviewees are employees and managers who work in HWE. As the nature of this study is explorative, a multilateral perspective of work environments has been researched to develop a conceptual framework for hybrid teams. From the interviewees, eight participants worked in HWE (a combination or alternation of the IOE and WFHE), two in an IOE (5 days per week in-office), and two of them in a digital WFHE (5 days per week digitally). The structure of the content analysis was designed to answer the research question: Which physical, digital and social conditions influence team creativity in the hybrid work environment?

Sub-research questions:

- 1) Which physical conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?
- 2) In which way do social conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?
- 3) To what extent is each stage of team creativity affected by the digital collaboration tools? (problem identification, idea generation, and idea championing)?

In this chapter, no numbers or percentages were stated, except for two exemptions, as it was only twice the case that 8 or 10 out of 12 participants in two or more work environments shared the same or very similar perspectives. These numbers are only stated in section 5.1 (physical and digital resources). The idea behind this qualitative study is to develop ideas, potential explanations, and propositions that can be tested in a quantitative study with a larger sample size (Bhandari, 2020). The researcher focused on the patterns, similarities, and contrasts throughout the qualitative data analysis. However, sometimes a quote from a single person was used to reinforce these similar or contradicting findings to understand the phenomenon better.

5.1 Physical and digital resources

Physical-digital resources are often used to assist and support the team's creative process. 8 out of 10 participants working in hybrid and virtual teams indicated that they have an adequate home office. Only two participants did not have an adequate home office. This was not because the organization did not provide the full-home office set-up regarding physical and digital resources, but this was more of a "space issue" rather than a supportive one. By analyzing all the findings regarding the PWE, the following essential physical-digital resources that drive creativity in the hybrid and virtual work environment are followed: "screens," "cameras," "space," and "Wi-Fi."

On the other hand, for participants that worked in conventional teams (in-office), the most essential physical resources were "open-work spaces," "ergonomically adjustable desks," and "chairs." Hybrid and virtual workers indicated that they get a budget or all the essential resources being provided for the full home-office set-up. Since 10 out of 12 participants worked in a company size of more than 1200 employees, most of those companies are internationally oriented. In many cases, virtual and

hybrid teams often deal with geographical dispersion. Most of these companies support employees to have the proper physical and digital resources at their disposal for teamwork-related tasks. This is reinforced by the following quote:

"Most companies now, at least most big international companies nowadays, provide the full-home office." ~ Participant 1.

In contrast with conventional and virtual teams, hybrid teams experience forms of mixed presence (digital and physical presence). Therefore, hybrid teams depend more on physical and digital resources in their work environment than conventional and virtual teams. For hybrid teams, it is crucial that they have a combination of high-quality physical-digital resources in both work environments. Particularly when hybrid and virtual teams are geographically dispersed, leading to a variety of physical and digital presence in a creative session, those technologies that support hybrid work (see images 3,4,5 and 7) help to increase team collaboration and creativity by "giving everyone from home and in-office a fair share" to share an idea or viewpoint on a specific problem and solution. Through diminishing the poor quality, sound issues, visibility, and engagement with the team. The participants that have these technologies at their disposal described it as "user friendly," "high quality," "sharp sound and image quality," and "improving leadership." This is reinforced by the following quote.

"The newer rooms, which are the team's rooms, are more developed. They zoom into the one who has the floor. The audio is better oriented. So there is more done on the interaction and giving everyone a fair share, the same position in the meeting as whether you are at home or in the office." ~ Participant 6.



Image 1: Example of speakers attached to the ceiling in-office rooms for hybrid work Source: Company WB, 2023

Large flatscreens enable managers and employees can tune in digitally from home while others are physically present in the office. Most participants that work hybrid have digital types of technologies at their disposal on-site (high-quality sound, cameras, flatscreens, tablets integrated with the latest

tools and technologies) and share the notion that through these types of technologies, hybrid teams can more successfully exchange ideas (idea generation) and evaluate them (idea championing) as it fosters the collaboration between team members through highly optimized ambient sound and sharp image/video quality. In addition, several managers indicated can coordinate their team more effectively through those physical-digital resources. Subsequently, the following is propositioned:

Proposition 1a: A positive relationship will exist between having the necessary equipment installed in-office for hybrid workers and team creativity in the hybrid work environment.

Proposition 1b: A negative relationship will exist between having the necessary equipment installed in-office for hybrid workers and team creativity in the hybrid work environment.

Proposition 1c: A positive relationship will exist between high-quality equipment for hybrid work and the coordination of team management

This proposition particularly relates to hybrid teams as conventional and virtual teams do not need this kind of technology as they are not working with mixed presence during the week. Those teams either work fully in-office or from home. However, both conventional and virtual teams need physical and digital resources to work properly, not the hybrid cameras (see Images 2 and 3) and the high-quality sound speakers attached to the ceiling (see Image 1).





Image 2: Example of high-quality flatscreens (and attached camera above) for hybrid work Source: Company K, 2023

Throughout the qualitative data analysis, the researcher discovered that in conventional, hybrid, and virtual teams, in most cases, the problem identification stage is identified by external parties (e.g., clients, suppliers, and other departments). Most hybrid workers were in the so-called "happy condition" and interacted face-to-face with their clients when identifying and discussing the problem. Although sometimes it is not always possible from the client's or company's side for everybody to be present in the office. When a situation like this occurs, the hybrid technology (see images 1,2, and 3) looks professional toward the client and helps collaborate in the "problem identification stage." The following quote strengthens this empirical finding.

"So there are some spaces and rooms that have that with a sharp image and sound quality. The camera can also follow you when someone speaks. So it just looks really professional also towards our partners or contractors. Of course, we also have a lot of external consultations where you really want to appear professional, and this equipment supports that in a great way." ~ Participant 11







Image 3: Example of a high-quality camera designed for hybrid work sessions

Source: Company WB (2023)

Some participants work in international, and geographical dispersed teams. Therefore, hybrid work cannot be erased in their organizational landscape. Some team members cannot always be physically present as there is no headquarter or office in their country of residence. Having the right and high-quality equipment installed at the company's site influences how employees and managers in international and geographically dispersed teams can follow the meetings and discussions from home or in-office.

TV screens show how employees or managers can tune in digitally and are physically present at the office (see Image 3 and 5). These resources are necessary, notably for the creative process, as teams exchange and evaluate ideas through virtuality. However, there is a difference between when a full virtual work setting is effective and when not. Several respondents working in a hybrid or virtual setting prefer to work only partially digitally or prefer to work on-site when the group size is large. This relationship between the dependency of the group size is being reinforced in the following manner:

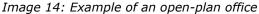
In my home office, there was a time when there was a lot of teamwork online, and then I'm talking about putting 20, 30, 40 people in one big call and trying to make it work, which just simply does not work. So I think up to five people, it's doable, but anything beyond that is, it's not productive at all. "~ Participant 4.

Consequently, the following is propositioned:

Proposition 2: An irreversible relationship will exist between the perceived group size and the hybrid work environment

In addition, another relationship regarding the work environment can be established as participants in hybrid teams prefer open-plan offices to do team-related tasks (see image 6). However, this statement depends heavily on the task's complexity and the scale of the problem. Virtual teams would also like this open-plan environment for complex tasks and social interactions,, but this is often not possible due to geographical dispersion.





Source: Company K, 2023



Grounded by the findings of the content analysis, hybrid workers do not have contradicting views on the role of the office regarding task complexity in creative sessions. If the problem's size is significant (large), managers and employees prefer the IOE. In contrast, when it is insignificant (small), managers and employees prefer the hybrid or virtual work environment. Thus, teams base their decision on the work environment on two moderating factors: task complexity and group size. The following quote displays the strong similarity hybrid workers share:

"Various problems will, of course, arise during the course of the project. It depends on how big the problem is. We generally discuss major problems physically, and you can, of course, discuss the minor problems via your laptop. So therein lies the size of the problem. If we have a big problem that requires a lot of creativity and cooperation to solve it. Then we do it physically in the office. If this is a minor issue, requiring minor adjustments or discussions, then we just do it digitally" ~ Participant 11.

Based on these findings and similarities, the following proposition is formed:

Proposition 3: An irreversible relationship will exist between the perceived level of task complexity and the hybrid work environment.

5.2 Social conditions

Grounded on the empirical data regarding the social conditions, participants referred to social factors such as; "psychological safety," "social interactions," "support," "age," "multi-modal communication," "leadership," "coordination," "trust" and "development." Some of those social factors are team processes, while others are more in an individual context.

5.2.1 (Multi-modal) communication

For team creativity as a process, communication is crucial for knowledge sharing regarding project information, reaching a mutual agreement on the client's problem, and coordinating efforts (e.g., particularly by a manager). Before the pandemic, it was customary for teams to meet concurrently at the client's company, allowing for physical face-to-face interactions. However, communication via digital collaboration tools expanded and improved, becoming more prevalent in a HWE. For virtual and hybrid teams, participants described that those ICT technologies are essential tools for sharing project information as team creativity. Participants working in hybrid and virtual teams indicated the frequent use of multi-modal communication. Grounded on the empirical data, mixed digital and physical presences, multi-modal communication (e.g., audio + video versus only audio) negatively affects the social conditions and three stages of team creativity. Participants in the hybrid and virtual work setting indicated that their greatest concern about working is that they often cannot detect 'the social cues' such as; 'body language,' 'facial expressions,' and experience less' social interactions and contact.' Team members cannot see these social cues when the camera is turned off. Therefore, fewer social interactions between co-workers result in a negative impact on creativity. Some participants stated that there is a danger in working digitally as this can negatively influence the creative process due to "limited access" to people's "work environment." These similar findings in the hybrid and virtual work environment are reinforced by the following quote:

"Everyone is a little more irritable in a digital work setting. With working digitally, it's a bit easier to hang back in a digital work environment than physically in the office. Because with hybrid and digital work, you lose your social connection with your colleagues. This connection with your colleagues creates creativity." ~ Participant 11

Moreover, several participants in the hybrid and virtual teams stated that they have less overview of what their team members are doing and that this sometimes can influence the trust levels. Managers and employees indicate that working in virtual or hybrid teams adds an additional dimension of complexity. Some creative stages are not fully 'mastered' in a WFHE, resulting in switching back to the office more frequently for hybrid teams. Most participants working in hybrid and virtual work environments indicate that they encounter difficulties, particularly in the idea generation stage. Higher levels of virtuality caused an increase in "impersonal feelings" and "experiences" when having a creative session online together. Most of the managers and employees in virtual and hybrid work state that: idea generation, followed by stage three: idea championing, is mainly affected by multi-modal communication. In contrast, in-office workers do not experience multi-modal communication and disturbance in the social and creative process. Face-to-face

interactions are their primary form of communication. Consequently, the following lessons have been learned:

Proposition 4a: A possible negative relationship between multi-modal communication and the perceived level of trust in a hybrid and virtual work environment will exist.

Proposition 4b: A possible negative relationship will exist between multi-modal communication in relation to social conditions and team creativity in a hybrid and virtual work environment.

5.2.2 Blended mix of digital and physical presence

Besides multi-modal communication, hybrid teams encounter another form of complexity compared to virtual and conventional teams, which is a mixed physical and digital presence within a team. In other words, some work face-to-face in-office and others digitally from home. Participants WFH feel themselves socially neglected when others are meeting in the office. The primary reason is not having equal "social contact" or "social engagement" in the meetings and creative sessions during the project. However, several participants that work hybrid and have high-quality equipment (e.g., cameras, sound, flatscreens, integrated devices for hybrid work) installed in meeting rooms experience fewer difficulties and social neglection within the HWE. In general, hybrid workers prefer a way that everybody works on-site on Tuesday and Wednesday and the rest of the week from home and not via the second way of hybrid work, which is; a mixed physical and digital presence among team members. However, sometimes this is not possible due to employees' illness, geographic dispersion, or being present at the client's office. Consequently, the following is propositioned:

Proposition 5: An irreversible relationship will exist between mixed presence and social neglection within the hybrid work environment when teams do not have equipment for (mixed) hybrid work

Proposition 5b: Hybrid teams that have high-quality equipment installed on-site experience lower perceived levels of social neglection that teams that do not have this equipment.

On the other hand, participants that worked only in an IOE did not experience any difficulties in the social processes as the work environment is 'open-plan.' Therefore, creativity as a process does not contain an additional dimension of complexity in this work environment. The two participants that only work in-office stated benefits of the IOE, such as; 'shorter communication lines,' 'open door policy,' and 'social engagement.' Although in the 'idea championing stage,' digital collaboration tools such as; Microsoft Teams and Excel are used. However, effectiveness lies in coming together as a team for a brainstorming session (idea generation) and selecting and evaluating those ideas (idea championing) in the same office environment. However, conventional teams have encountered fewer social neglection issues during creative sessions than hybrid and virtual teams. This is reinforced by the following quote.

"I do not see this happening if we all work online, with longer or more complex communication lines between colleagues, so I'll switch immediately to the departments that are responsible for this kind of problem." ~ Participant 5

Therefore, it is propositioned:

Proposition 6a: A positive relationship between physical presence and team creativity within the in-office work environment will exist.

Proposition 6b: Idea generation and championing are more effectively executed in conventional teams than hybrid and virtual teams.

5.2.3 Leadership

Throughout the qualitative data analysis, leadership plays a crucial role in the social conditions and creativity of a team in all three work environments. However, as mentioned before, virtuality in hybrid and virtual teams adds an additional layer of complexity due to geographical dispersion and combinations of team members in-office and others WFH. Therefore, managers themselves find that they must take their leadership to a higher level. Managers stated that they have a coaching leadership style. This is in line with the interviewees worked in virtual and conventional teams as they also indicated having a coaching leadership style. Employees working in a HWE share the same perspective as the manager and experience that managers have more of a combination of leadership styles between coaching, transforming, and situational leadership. The keywords that most managers used to create a social work environment were "openness," "eagerness," and "safe."

"So creating a very safe space for everyone to say, whatever he or she thinks, and these conditions, these are pretty requirements for a team to innovate effectively. In contact is not asking only, but it is also listening to them and not concluding, but just gaining information and sharing it with other colleagues, and having an open discussion around that." ~ Participant 6

All the managers stated they do not have a hierarchical leadership style, as this does not support their employees in having the desired outcome and can have a negative social impact on the team. Three out of four managers operating in hybrid teams do not want to be hierarchical about the use of multi-modal communication. In many cases, managers will not ask employees to turn their cameras on, except when a product needs to be shown, or the leader will simply state in a more positive and less hierarchical manner: 'Hey, I don't see you' in order not to be too hierarchical. In addition, team members are mostly physically present when the managers are and vice versa. Managers coordinating hybrid teams prefer not to have both physical and digital presence combined. As mentioned before this, sometimes managers need to go to the client, illness or geographical dispersion are reasons for mixed presence. However, this issue can be solved with hybrid meeting technology and is greatly beneficial to close the gap between virtuality and perceived social interaction levels.

From the employee's point of view, all managers should consider and take into account the "personal situations" of employees. In each work environment, employees stated that managers should take into account the social well-being of employees. This is reinforced by the following quote:

"A team leader should be aware of everybody in the team, their personal circumstances, and how those personal circumstances can influence their work. If a team leader is aware of those things. He can try to prevent them, or he can try to work in such a way that they will not have such a big impact, especially in IT." ~ Participant 1

On the other hand, several employees working in the hybrid and virtual work environment stated that there is less 'micromanagement' in a hybrid and virtual work setting, which results in more freedom, flexibility, and enhanced well-being. This flexibility leads to being more productive and creative during creative sessions as team members, to a certain extent, can plan those sessions at their preference in accordance with the manager and colleagues. In contrast with conventional teams, those interviewees stated that there are more 'interruptions' and 'distractions' in an open-plan office environment.

Through this contrast, the following is propositioned:

Proposition 7: There will be a positive relationship between managers and employees and team creativity when flexibility is experienced.

5.2.4 Team cohesion

Establishing team cohesion is difficult in a virtual and hybrid work setting, as further evidenced by the empirical findings. As the vast majority of the participants indicated that they do miss the 'social connectivity' and 'belongingness 'among team members. Events and activities that are hosted in a virtual work environment are often regarded as 'fake' and 'unreal.' Its possible explanatory element could be the challenges associated with transferring a sense of belongingness into the hybrid and virtual context. However, it has been argued that the level of team cohesion is highly dependent on the cooperating team members. Several employees prefer to work more on-site than one time per week in a hybrid work environment in order to increase the team cohesion. In contrast, with conventional teams as those do encounter high levels of social belonginess and connectivity.

Proposition 8a: Virtual and hybrid teams will experience less team cohesion than conventional teams

Proposition 8b: An irreversible relations ship will exist between team cohesion and virtual and hybrid teams

Similar findings can be attributed to the phenomenon of psychological safety and trust.

5.2.5 Psychological safety

Employees working in a WFHE or HWE desire "face-to-face contact with their manager." Employees indicated that "sarcasm" and "expressions" are hard to understand online. Several employees working in virtual and hybrid teams stated they regularly need help to ask their co-workers or managers for clarification regarding a creative assignment. Those employees tend to wait for the

scheduled weekly meeting and have admitted that this can hinder their creative input in a team meeting.

"For example, you are doing a task and you need more support from your colleague or from your manager. If you are in the same office. You can see, okay when the manager is free. Even you can see the manager's mood. Is he in a good mood? Is he in a stress? Is he busy with some task or not and decide to go and talk to him. But when you are at home, I was always stressed. I want to call my manager. Is it a good time? Maybe he's in a meeting. I don't know perhaps it's a very important meeting and I am kind of disturbance for him at the moment if I will call at that moment." ~ Participant 2

This contrasts with the empirical findings of several interviewees who only work in-office (on-site) as they do not encounter psychological problems due to "open door policies" and "open workspaces." There is no additional layer of complexity or limitations, and employees can see each other's work behavior. While managers simultaneously have more access to supervise their employees in an open-plan environment. If there is a problem, a manager can sometimes clearly notice a difference in the employee's behavior through "facial expressions" or "body language," or employees have better access to their manager's workplace and other departments. Notably, during the "problem identification" stage, both managers and employees are highly dependent on external parties (e.g., clients, suppliers, clients, or other departments). Therefore, interviewees operating in conventional teams do experience higher levels of psychological safety than virtual and hybrid teams. For example, interviewees who work hybrid described that people would share knowledge faster physically in-office than working virtually based on having "no social contact with each other." Participants 5 and 7, that work in conventional teams, confirm this as the "communication lines are shorter" and "more spontaneous." This is strengthened by the following quote:

"When you have a team working from home, then you do not have this spontaneity. You do not speak to your colleagues' spontaneity, and there is less binding. You have to plan everything. This kind of work setting is less efficient. You have less feeling and social connection with your colleagues. Our management is thinking the same way about it as we have noticed that during the COVID ~ Participant 5."

Through this contrast by comparative content analysis, the following can be propositioned: Proposition 9: An irreversible relationship will exist between perceived levels of psychological safety and high levels of virtuality

5.3 Age

Several interviewees operating in hybrid and virtual teams stated that it is important to have 'versatility' in terms of age in a HWE. When working in virtual or hybrid teams, digital skillsets are essential. Both managers and employees working in virtual and hybrid teams experience that the younger employees have more digital skills then their older colleagues. In order to have creative

outcomes in team sessions (particularly in the idea generation and championing stage) a multi-faceted perspective and digital skills are required on the problem is required. Therefore, an obstacle is that team members that are less skilled in operating with digital tools and applications. Employees execute their creative-related and job task several digital tools, such as; Jira; Miro, and with Microsoft Office tools. Thus, there are several digital tools they need to learn and master. The solution to solving this issue is internal training. Older employees find it more difficult to adapt or learn about new digital technologies than younger ones. The younger employees have grown up in a digital society. Furthermore, participants in virtual and hybrid teams stated that "different backgrounds", "professions", and "educations" can help the team to increase the team's creative output. Consequently, the following lesson is learned.

Proposition 10: Younger employees are more enabled to work in the hybrid and virtual work environment than older employees.

5.4 Digital tools and applications

In all three work environments, digital tools are used. The higher levels of virtuality in the work environment, the more it is dependent on digital collaboration tools. However, different digital tools and applications have been used in the "creative process." First of all, it is of significant importance that the technical equipment, like "laptops," "multiple screens," and "cameras," are provided for everyone within the team. Teams in all three work environments use predominantly Microsoft Teams and Zoom for video conferencing or virtual communication. However, Microsoft Teams is the most widely used within all three work environments. This similarity among the findings of the content analysis is reinforced by the following quote:

"It's best to have one platform with certain tools and applications and that everybody uses those. This is the best way to collaborate in creative sessions". ~ Participant 9

All of the participants working in the hybrid and virtual work environment indicated that they use Microsoft Teams as the main collaboration tool. Most Microsoft Teams and Microsoft Tools are integrated into digital resources like; computers, tablets, and digital whiteboards. Teams can tune in virtually or on-site in a hybrid session with one click on the tablet or digital share board. The images below show the necessary technical equipment for a hybrid meeting to start (with one click on the video call icon, the hybrid session can start). Therefore, "plugging the laptops in is no longer necessary." See the image below in order to get a better impression of this.







Image 5: Examples of tool set-up for hybrid work

Source: Company WB (2023)

Participants working in hybrid and virtual teams use following digital tools where the ones they use in the idea generation and championing stage. Most of the employees and managers indicated that the digital application "Miro" is ideal for team creativity in a HWE or WFHE, particularly during the idea generation and championing stages. Miro is a software application with a digital whiteboard that facilitates interactive engagement between colleagues by allowing them to exchange ideas through visual methods. Teams can exchange and prioritize ideas with numbers, colours, plusses, and minuses on a digital whiteboard. This tool enables teams to collaborate "creatively" in a hybrid or virtual work environment (Miro, 2023).

"With Miro, you can brainstorm all kinds of ideas and post digital sticky notes. You can make a graphic of it, or you make it visual, and you can be creative together with this collaboration tool. This makes the exchange of ideas easier and more effective. So for the third stage, we use Miro as well because that's where we prioritize the ideas, so with that digital tool, you can actually indicate with a colour or a number. This is idea number one, and this is the second best idea. The Miro tool is working very well there. It is a very creative tool and helps us to share and prioritize our ideas in a digital and hybrid work setting" ~ Participant 9.

Other digital tools that were used besides Miro for idea generation were "Mural" (very similar to Miro) and for idea championing "Jira." After Miro, Jira was the most tool used for idea championing, this is a tool which tracks product development and project management. Employees can see an overview here during the creative session of what has been done and what has not and which ideas are prioritized. It helps to visualize workflows, limit work-in-progress, and maximize efficiency as a team. Several hybrid and virtual workers work in Agile teams that may break down large, complex projects into small pieces of work with the aid of Jira's scrum boards, enabling hybrid and virtual teams evaluate tasks effectively (Jira, 2023). In contrast, with participants only working in-office as

those team did not use any of these tools in one of the creative stages. Digital tools they occasionally use were Microsoft Office tools (e.g., Word, Excel, PowerPoint) and collaboration tools (e.g., Microsoft Teams) for creative sessions, but only for idea championing and and sometimes problem construction. However, mostly on-site workers did the brainstorm sessions (idea generation) inoffice. Thus, there are levels of virtuality in conventional teams, but those are lower than hybrid and virtual teams. Consequently, the following proposition is formed.

5.5 Digital tools and applications influencing team creativity

According to Reiter-Palmon et al. (2021), team creativity consists of three stages: problem identification, idea generation, and idea championing. Throughout the content analysis, conventional teams exchanging ideas (idea generation) and selecting and evaluating (championing) are executed more effectively (except for low task complexity and group size) than hybrid and virtual teams due to the major role of the office. The problem identification stage is mainly done face-to-face on-site or at the client's office. Little is known about how digital technology affects the three stages of creativity in hybrid and virtual work environments. In hybrid and virtual teams, most of the interviewees stated that idea generation was the most affected stage by digital technology. The underlying reason was that this stage is where everyone needs to be the most "creative" and is the "longest process in length" of the three. Idea generation is also the stage most affected by blended presence (physical and digital presence) in a HWE. Second was the idea champions stage, and the third was the problem identification stage. In most teams, this stage is done face-to-face with external parties (e.g., clients, suppliers, and other departments) in the client's or company's offices. In-office there, barely any digital tools are utilized here, and in cases it occurs, it is only to a limited extent. Consequently, the following propositions were formed:

Proposition 11a: Idea generation is mostly affected by digital tools and applications in the hybrid and virtual work environment

Proposition 11b: Idea generation is mostly affected by the mixed presence within the hybrid work environment

5.6 Team development

Team development is pivotal for effective team collaboration and creativity. Through group assessments, teams can develop themselves in the creative stages. Therefore, the researcher asked questions about whether they have those in the creative cycle. 10 out of 12 participants did not have a system in place for group assessments in the three stages of team creativity. Neither how to effectively work in a workplace environment. There are more group assessments in the form of retrospectives about the output of the product or service, but not about creativity and how to work effectively hybrid or virtual during a creative session. Most managers and employees stated that this item must be addressed in a team meeting, or systems must be in place for this. In order to reinforce the findings, a manager and employee from the same company (Company K, see Table 2) have agreed upon this issue and that this can help to work effectively and creatively in a HWE.

"No, we should definitely have those assessments. So I would recommend to have that in place, so that's something that we must address in a team meeting." \sim Participant 9 (employee). This is in line with the quote of the manager:

"That's a very good point you touched upon. Team evaluation we do that of course. We do that in the retrospectives. That's a form of evaluation of ourselves after each sprint, but there's never been the subject of how to effectively work hybrid" ~ Participant 6 (manager).

5.7 Constructed conceptual framework by the researcher

Based upon the qualitative data analysis and its number of invigorating insights, the following developed conceptual framework by the researcher for hybrid teams in relation to creativity is introduced (see Figure 9). This framework clearly displays that the inputs (e.g., work environments) influence the team processes, and in turn generate outputs. The inputs are the three work environments (in-office, hybrid and virtual work environment). Derived from the qualitative data analysis all three work environments need to contain adequate and high-quality resources (e.g., physical resources, digital resources) and office space. These are essential driving factors for the improvement of individual and team creativity. In the IOE, open-plan spaces and office are preferred with the high-quality physical and digital resources in order to work creatively (e.g., whiteboard, ergonomic, chair, desk, and computer). The same applies to the virtual work environment (e.g., WFH), although virtual teams are more highly dependent on the digital resources than the physical ones in order to work creatively. Wi-Fi with enough bandwidth, multiple screens, high-quality webcams, cameras and digital collaboration tools are all essential for the creativity when WFH. The HWE, on the other hand, it is essential that both physical and digital resources are of high-quality and ergonomically adjustable in order to work creatively. As the HWE can consist of an alternation and combination of WFH and in-office they depend on physical resources and digital resources (cameras for hybrid work, high-quality sound and set-up, see image 1,2,3 and 5). These digital resources can avoid the social neglection of virtual workers while others work on-site.

Depending on the quality of those resources and in which environments teams work depends how creativity as a process is influenced. However, not only creativity is influenced, also other processes such as; collaboration, development, and coordination. The process of coordination consist of the leadership style and exchange between leaders and employees in the work environments, which is affecting if a change in the work environment occurs (e.g., in-office, virtual or hybrid). The leadership can change as well, but despite the change in the work environment most managers have a coaching leadership style. The high-quality cameras and speakers help and strengthen the manager's coordination and leadership of a team. Both conventional, hybrid and virtual teams use digital collaboration tools. Hybrid and virtual teams are more reliable on those tools than conventional teams and are therefore essential in the creative process as without digital collaboration tools creativity is not possible in virtual and hybrid teams. Furthermore, the degree of virtuality can influence the social conditions and team creativity, through multi-modal communication (audio versus audio and video) and mixed presence. The higher the levels of virtuality, the lower the social conditions (psychological safety, and trust on an individual level) and team cohesiveness (team

level) will be. Those processes within the hybrid work environment are moderated by degree of virtuality. Grounded from the empirical data it was clear that a degrees of virtuality influence the social conditions of a team. The higher the level of virtuality, the less social binding, psychological safety, and social belonginess in a team through fewer social interactions. The same applies to multimodal communication as social and team processes heavily rely on forms of communication and the creative output can be affected by this. Turned-off cameras in a virtual and hybrid environment can lead to decreased trust and psychological safety levels as there is no manager supervise the employee. Furthermore, compared to Figure 4 a new team process has been added, which is development. Derived from the content analysis it became visible that teams do not have meetings about how to work effectively hybrid during creative sessions. As a consequence mainly older employees are less digitally skilled than younger ones. Therefore, to work effectively in the hybrid work environment those employees need more digital training and support in order to put more individual (digital) creative effort into the team.

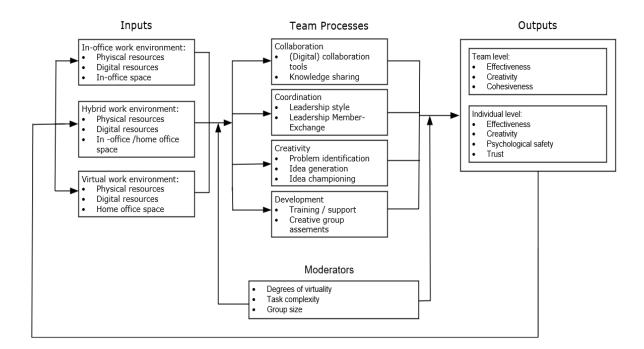


Figure 7.New theoretical framework of hybrid teams.

6 Discussion

This chapter aims to describe the empirical findings compared to the extant literature. In the Discussion section, findings will be linked with extant knowledge in term of it comparisons and contrasts.

The purpose of the office has also been stated during the interviews. WFH is regarded as a major component of the hybrid working model. Managers must emphasize the significant role the office has as a physical workplace for creative sessions and projects. Most managers and employees working in virtual or hybrid stated that idea generation is the most impacted stage by digital collaboration tools. Throughout the qualitative research analysis, the office environment serves largely the purpose of socialization and idea generation. This goes in line with Landy et al. (2013), which discovered that open and adaptable areas for team interaction encourage employees to ask their co-workers for advice, support, and information, enhancing the value of and generating ideas. The office serves as a crucial component of problem identification in hybrid and conventional teams as it typically necessitates physical nearness for collaboration with co-workers helping teams to quickly interact with other departments within the organization, in comparison with virtual teams.

Throughout the empirical findings, most of the employees working virtual or hybrid indicated that the managers should take employees' personal preferences, well-being, and personal circumstances into account so that employees can be more productive in creative sessions. This confirms the study by McKinsey (2021), which addressed that hybrid work models provide a more tailored employee experience at times when they are most productive. However, building and maintaining relationships with their employees is a key responsibility of a team manager (Rickards & Moger, 2000). Hence, it is essential to promote casual interactions to increase team trust (Eisenberg & Krishnan, 2018). However, as noted by several employees, they appear to experience a deficit of social interactions, trust, and psychological safety in hybrid and virtual work environments. Therefore, many hybrid workers suggested feedback sessions with their managers face-to-face or working more on-site.

The empirical results also show that in order to preserve workplace well-being and psychological safety, employees need to be supported by managers. Most of the aspects of team leadership by Rickards & Moger (2000) go in line with the findings as the following points were also shared by employees and managers; empathy and understanding (1), sense of social belongingness and connectedness (2), climate (3), resiliency (4), support (5), knowledge (7) and eagerness and openness to learning (8) to drive creativity in a hybrid work environment.

According to a study by Cuerdo-Vilches et al. (2021), 33% of the study's respondents' home offices were inadequate during COVID-19. They were inadequate its size, number of occupants, access to digital and physical resources, room size, and furnishings. However, this is in contrast with the findings, as 8 out of 10 participants working in hybrid and virtual teams indicated that they have an adequate home office. According to Cai et al. (2020), social interactions mediated by digital tools and applications can be just as crucial to the influence of team creativity as being physically present in an IOE. In comparison, the findings state otherwise, as most participants in virtual and hybrid teams indicate that face-to-face interactions in terms of team creativity play a more crucial role than digital interactions, particularly in idea generation. This only further proves the study by Smith et

al. (2018), which said that face-to-face interaction is the highest medium of communication (Smith et al., 2018).

According to Kallio & Blomberg's (2009) framework of creativity, conditions can positively or negatively affect the climate's creativity in the workplace, depending on the attributes of each variable and environmental/situational impacts. For instance, the same leadership style or interaction may have opposing effects on creativity in different work environments. This is in line with the findings as the task complexity, group size, degrees of virtuality, and all moderate creativity in a certain way. A work environment will be dependent on the task complexity and group size, whether a creative session is effective or not. For example, complex tasks and large groups do not function well in a virtual or hybrid work environment, while uncomplex tasks and small groups can function greatly and effectively in those work environments.

According to Amabile's Componential Theory (1996), the external factor, the SWE, can influence all three internal factors of creativity, which are expertise, creativity skills, and task motivation. The findings could show a relation to the third external factor, which was task motivation. As in the hybrid and virtual work environment, team members do have the feeling of leaning back more in hybrid or virtual teams, which implies reduced task motivation. In addition, the longer the creative stage, the more likely employees turn off their cameras and use multi-modal communication. The second external factor of Amabile's theory (creative skills) can be enhanced through digital tools and applications (e.g., Miro, Mural, Jira), fostering creative thinking skills, and the hybrid work environment entails more flexibility than a WFHE or IOE.

According to Jaiswal & Dhar (2015), a creative climate is crucial in influencing knowledge-sharing behavior between managers and employees. This is because a shared understanding between those parties encourages idea generation. This shares similarities with the findings as in the HWE, employees experience more freedom and flexibility in their work location and timetable than employees in IOE, with the sole exception of any occasions that are required for meetings with the client or the team in-office. Whilst in-office workers must always be present in-office and there is more supervision and control by co-workers and managers.

Leadership is crucial for creative teams to function as it has a significant, influential role. This has been the case in virtual and conventional teams. However, as mentioned before, virtuality in hybrid and virtual teams adds an additional layer of complexity due to geographical dispersion (Richter, 2020). According to Gilson et al. (2015), leadership can significantly impact the social conditions influencing creativity. A major challenge for managers is that they often do not want to be too hierarchical and explicitly tell their employees to turn on their cameras. This allowed the use of multi-modal communication (some use only audio and others audio + video) can disturb a team's collaboration and creative process. The fact that some teams are geographically dispersed across the globe does not help in this situation, as some employees have never seen their co-workers or manager in real-life and vice versa.

7 Conclusion

The purpose of this thesis was to explore the physical-social conditions and digital tools and applications in the HWE and how it can influence the three stages of team creativity in the context of IT teams. Furthermore, to reach this purpose the researcher aimed to develop a conceptual model of hybrid teams in relation to team creativity. In order to study this phenomenon, the following research question was created:

Which physical, digital and social conditions influence team creativity in the hybrid work environment?

To answer the research question the following sub-research questions were formulated:

- 1) Which physical conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?
- 2) In which way do social conditions in the hybrid work environment influence team creativity (problem identification, idea generation, and idea championing)?
- 3) To what extent is each stage of team creativity affected by the digital collaboration tools? (problem identification, idea generation, and idea championing)?

To answers these questions, an exploratory study with managers and employees mostly with IT teams were conducted. Through 12 conducted interviews, the researcher was able to investigate and pinpoint the fundamental working relationships and team processes between managers and employees in the hybrid work environment. In addition, the matrix displayed two overarching themes, which were degrees of virtuality an team creativity in the work environment. The empirical results indicate that collaboration, coordination, and development all greatly influence and contribute to creativity.

The physical-digital resources (e.g., high-quality speakers, camera's, large TV screens, at the office, multiple screens, ergonomic chairs and desk, and a stable WiFi connecting when WFH or hybrid) helps managers and employees in the team creative process. The physical conditions of the HWE affect drive social conditions influence team creativity. The team processes that were affected by shifting from work environment were coordination, collaboration, creativity and development. Hybrid teams have an additional layer of complexity because of multi-modal communication and mixed presence (physical and digital presence) which also can influence the social conditions of a team. The higher the degree of virtuality the more the social conditions and a team's creativity is affected by it. Thence, team members experienced a reduction in team cohesion (e.g., social interactions and connectivity). The HWE is moderated by the task complexity and group size. If those are significant (large) than managers and employees prefer the-office instead of a virtual work environment. If those are insignificant (small) than they prefer to work online in virtual teams. Therefore, most employees and managers shared that idea generation is mostly affected with digital collaboration tools, and is the longest stage in length of the three (problem identification, idea generation, and idea championing), which results in increased multi-modal communication. For example, people are turning their camera's off when the creative session is taking too long. In

addition, the same stage is most affected by digital collaboration tools because it is the most creative stage of the three. The use of multi-modal communication influence team creativity negatively as most of the participants feel cannot see the facial expressions, gestures and activities of their colleagues. When working hybrid with mixed presence the employees that work virtually often feel themselves socially neglected when others are in-office. However the high-quality equipment (physical-digital resources) installed in the office do help to decrease the social neglection and increase the quality of the creative sessions in comparison to a complete virtual work environment. Based upon these findings a new conceptual framework was developed and can serve as the contribution to the literature, and will help to shed light into this complex and understudied topic.

Some older employees require guidance and coaching in the hybrid way of working in contrast with younger employees. On the other hand, hybrid teams experience less micromanagement and have more freedom in the form of flexibility, which helps to improve productivity and creativity. One of the greatest issues was the multi-modal communication aspect that constrains the social relationship and interactions between co-workers building potential for the hybrid environment, in which social cues and subtleties are not adequately visible. Comparatively speaking this means that in more virtual teams attention the high degrees of virtuality will affect the social conditions of a team negatively.

Digital collaboration tools can heavily influence the creative process. According to most participants, idea generation is most affected by digital collaboration tools and technology as it is the most creative stage of the three and the longest one in length, followed by idea championing and problem identification. However, the current digital software applications available on the market and installed by many companies, such as Miro, which is very beneficial and ideal for idea generation and championing. Several participants indicated that they have to master several tools when working virtual or hybrid. They prefer one coherent platform with built-in software tools and applications that will be more efficient and easy for the team instead of working with four or five digital tools.

7.1 Theoretical implications

The theoretical implications derived from the empirical findings in this master dissertation can help to comprehend physical and social conditions affecting creativity in the hybrid work environment, particularly for the IT industry. The developed conceptual model and propositions by the researcher can serve as a theoretical contribution to the literature if tested by a larger sample size through a quantitative study. From the standpoint of the manager of IT teams, this research paper attempted to analyze the viability of hybrid work compared to conventional and virtual work. Additional knowledge and explanations about physical-social conditions affecting team processes and the leadership style in IT teams. In addition, the teams' level of virtuality/hybridity (multi-modal communication and mixed presence), which brings many challenges in hybrid work may be gained through this qualitative study. Despite the fact that geographically dispersed teams have existed for a long time, it is only very recent that the HWE is beginning to receive significant attention. Reasoning behind this rapid influx of interest in the HWE is a post-consequence of the COVID-19 pandemic, which possibly acts as a radical impulse for the expectancy of hybrid teams to continue to grow. By using the conceptual model, researchers can better comprehend and study the affected

physical- social conditions in relation to team creativity as well as the perceived advantages and challenges from a manager's and employee's standpoint in a HWE. With a particular focus on the IT industry, this research paper might serve as the foundation for further development of the theory regarding the HWE. The findings contain some theoretical contrasts and similarities between employees and managers. Moreover, they show that managers in practice seem to be worried with the engagement of the employees and the consequences of degrees of virtuality and hybridity and the effect it has on a social level and team creative output. This study can help future researchers to close the gap between theory and practice when they study both the employees and managers perspectives within the HWE.

7.2 Practical implications

With COVID-19 officially no longer being a pandemic resulted in a rapid influx of hybrid work on a global scale. This master dissertation indicate that the HWE contain unique conditions in relation to team creativity in comparison with conventional and virtual teams. The key factors for driving creativity in hybrid teams has been displayed in the presented conceptual model developed by the researcher. This hybrid framework indicates the most frequent social challenges and issues that hybrid teams experience. In addition, it also serves as a guiding tool for managers on how to deal with these issues and how to enhance social conditions and team creativity within the hybrid work environment. These practical perspectives could guide managers to comprehend the social difficulties of within the HWE. By adopting these observations, managers may be able to modify their teamwork-related leadership style and approach in order to match the demands of their employees for flexibility and social conditions, such as; well-being, psychological safety, trust leading to enhanced creativity levels. Thus, hybrid work contain many potential dangers for organizations and have to be managed effectively and carefully in order to succeed. Managers and employees teams will achieve improved levels of social conditions and creativity if they concentrate on transparent, well managed practices and team-processes. Organizations can aid managers in this by supporting teams with the necessary physical and digital resources (e.g., hybrid cameras, optimized ambient sound, multiple screens, stable Wi-Fi connections at home) and one coherent digital platform for team collaboration and creativity that fosters hybrid work.

7.3 Limitations and recommendations for future research

The findings of this research paper represent a solid foundation for further studies regarding this topic. Although this master dissertation contained some limitations. Firstly, as this nature of the study was explorative, a qualitative research method has been used where 12 participants were interviewed. The propositions based on the results of these interviews contained a small sample size. Future studies should, for example, conduct a study with a cross sectional design when examining team creativity in the HWE. This can be executed by carrying out a survey applied to a larger sample size.

Secondly, out of the 4P's of creativity only one P was researched; creativity as a process. It would be worthwhile to also study other ones in the hybrid work environment. In addition, the social

conditions influencing team creativity in hybrid teams have been studied, in a usual atmosphere. Further studies examine also a turbulent environment in hybrid teams through a longitudinal study in form of an experiment and observe the differences between a non-turbulent a turbulent one. Further studies should examine based this via a longitudinal study in form of an experiment.

The scope of this research was limited in another manner. The researcher emphasized the three stages of creativity (problem identification, idea generation and idea championing). In the problem identification stage it turned out that in many cases this stage is highly dependent on external parties (e.g., clients, suppliers or other departments within the organization) in order to construct and identify the problem. Thence, it will be worthwhile to study 'the problem identification stage' in a more multifaceted and different manner. This stage should be specifically studied in even a more multifaceted perspective (clients and, managers and employees), and include the decision makers as a node in the knowledge sharing process that links suppliers, clients, other departments within the organization and possibly other external parties. Despite this research, there is still much unknown about the creative process in the problem identification stage in the virtual and hybrid work environment.

Another constraint regarding the scope of the study is that the researcher had limited access and design of the creative projects, most participants shared their insights on successful team projects, but not the unsuccessful ones. While managers and employees shared their experience of creative projects the researcher recommends future studies to also examine hybrid teams by through a longitudinal study (e.g., experiment) as a different qualitative research method. Although it is completely understandable that organizations are cautious and hesitant to share information about projects in progress for competitive or privacy reasons, it would be valuable and relevant to know about this with respect to the study of the creative process and outputs in hybrid team projects. In order for further studies to research creativity in hybrid teams, researchers will need valid and reliable measurement tools; such as the approval to use the digital technologies and cameras for hybrid work in order to monitor the team's behaviour and collaboration patterns to test the propositions introduced in this research paper. Finally, it was more difficult to find managers than employees to participate in this interview. Therefore, the final limitation is that managers and employees in the sample size are not equally balanced.

Bibliography

- Adams, W. M. (2015). Conducting Semi-Structured Interviews. In *John Wiley & Sons, Inc. eBooks* (pp. 492–505). https://doi.org/10.1002/9781119171386.ch19
- Akinola, M., Kapadia, C., Lu, J. G., & Mason, M. F. (2019). Incorporating Physiology into Creativity Research and Practice: The Effects of Bodily Stress Responses on Creativity in Organizations. *Academy of Management Perspectives*, *33*(2), 163–184. https://doi.org/10.5465/amp.2017.0094
- Amabile, T. M. (1988). A MODEL OF CREATIVITY AND INNOVATION IN ORGANIZATIONS. *Research in Organizational Behavior*, *10*(10), 123–167.
- Amabile, T. M. (1997). Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do. *California Management Review*, 40(1), 39–58. https://doi.org/10.2307/41165921
- Amabile, T. M., Barsade, S. G., Mueller, J. J., & Staw, B. M. (2005). Affect and Creativity at Work.

 **Administrative Science Quarterly, 50(3), 367–403.

 https://doi.org/10.2189/asqu.2005.50.3.367
- Amabile, T. M., Conti, R., Coon, H. M., Lazenby, J., & Herron, M. C. (1996). ASSESSING THE WORK ENVIRONMENT FOR CREATIVITY. *Academy of Management Journal*, *39*(5), 1154–1184. https://doi.org/10.2307/256995
- Amabile, T. M., & Pillemer, J. (2012). Perspectives on the Social Psychology of Creativity. *Journal of Creative Behavior*, 46(1), 3–15. https://doi.org/10.1002/jocb.001
- Amabile, T. M., & Pratt, M. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, 36, 157–183. https://doi.org/10.1016/j.riob.2016.10.001
- Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of management*, 40(5), 1297-1333.
- Bell, E., Bryman, A., & Harley, B. (2022). Business research methods. Oxford university press.
- Bergelson, I., Tracy, C., & Takacs, E. (2022). Best Practices for Reducing Bias in the Interview Process. *Current Urology Reports*, *23*(11), 319-325. https://doi.org/10.1007/s11934-022-01116-7

- Bhandari, P. (2020, June 19). *Scribbr.* Retrieved from What Is Qualitative Research? | Methods & Examples: https://www.scribbr.com/methodology/qualitative-research/
- Bhatia, D., & Mote, A. (2021). Work from home (WFH): The new normal. *Int. J. Future Gener. Commun. Netw.*, 14, 1905-1916.
- Bingham, S. (2021, June 29). *Harvard Business Review*. Retrieved from To Make Hybrid Work, Solicit Employees' Inpu: https://hbr.org/2021/07/to-make-hybrid-work-solicit-employees-input
- Bloom, N. (2023, March 5). *Hybrid Work is Here to Stay. Now What?* . Retrieved from Spotify: https://open.spotify.com/episode/43kTfAIbV5tkCEIERgp0ab?si=438b28c2d68c4f0d
- Bolderston, A. (2012). Conducting a Research Interview. *Journal of Medical Imaging and Radiation Sciences*, 43(1), 66–76. https://doi.org/10.1016/j.jmir.2011.12.002
- Brem, A., Viardot, E., & Nylund, P. A. (2021). Implications of the coronavirus (COVID-19) outbreak for innovation: Which technologies will improve our lives? *Technological Forecasting and Social Change*, *163*, 120451. https://doi.org/10.1016/j.techfore.2020.120451
- Cai, Y., Song, Y., Xiao, X., & Shi, W. (2020). The Effect of Social Capital on Tacit Knowledge-Sharing Intention: The Mediating Role of Employee Vigor. *SAGE Open*, *10*(3), 215824402094572. https://doi.org/10.1177/2158244020945722
- Merriam-Webster. (2022). Interior environment. In *Merriam-Webster.com dictionary*. Retrieved November 7, 2022, from https://www.merriam-webster.com/dictionary/interior%20design
- Carmeli, A., Gelbard, R., & Reiter-Palmon, R. (2013). Leadership, Creative Problem-Solving Capacity, and Creative Performance: The Importance of Knowledge Sharing. *Human Resource Management*, *52*(1), 95–121. https://doi.org/10.1002/hrm.21514
- Carmeli, A., Reiter-Palmon, R., & Ziv, E. (2010). Inclusive Leadership and Employee Involvement in Creative Tasks in the Workplace: The Mediating Role of Psychological Safety. *Creativity Research Journal*, 22(3), 250–260. https://doi.org/10.1080/10400419.2010.504654
- Ceylan, M., & Hayran, C. (2021). Message Framing Effects on Individuals' Social Distancing and Helping Behavior During the COVID-19 Pandemic. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyq.2021.579164

- Chaharbaghi, K., & Cripps, S. (2007). Collective creativity: wisdom or oxymoron? *Journal of European Industrial Training*, 31(8), 626–638. https://doi.org/10.1108/03090590710833679
- Navimipour, N. J., & Charband, Y. (2016). Knowledge sharing mechanisms and techniques in project teams: Literature review, classification, and current trends. *Computers in Human Behavior*, 62, 730–742. https://doi.org/10.1016/j.chb.2016.05.003
- Chávez-Eakle, R. A., Eakle, A. J., & Cruz-Fuentes, C. S. (2012). The Multiple Relations Between Creativity and Personality. *Creativity Research Journal*, *24*(1), 76–82. https://doi.org/10.1080/10400419.2012.649233
- Collins, B. (2020, April 21). *Forbes.* Retrieved from How To Make Your Home Office More Creative And Productive: https://www.forbes.com/sites/bryancollinseurope/2020/04/21/how-to-make-your-home-office-more-creative-and-productive/
- Cuerdo-Vilches, T., Navas-Martín, M. Á., March, S., & Oteiza, I. (2021). Adequacy of telework spaces in homes during the lockdown in Madrid, according to socioeconomic factors and home features. *Sustainable Cities and Society*, *75*, 103262. https://doi.org/10.1016/j.scs.2021.103262
- Contreras, F., Baykal, E., & Abid, G. (2020). E-Leadership and Teleworking in Times of COVID-19 and Beyond: What We Know and Where Do We Go. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyq.2020.590271
- Cooke, N. J. (2015). Team Cognition as Interaction. *Current Directions in Psychological Science*, 24(6), 415–419. https://doi.org/10.1177/0963721415602474
- Cooper, R. G., & Sommer, A. F. (2016). Agile-Stage-Gate: New idea-to-launch method for manufactured new products is faster, more responsive. *Industrial Marketing Management*, 59, 167–180. https://doi.org/10.1016/j.indmarman.2016.10.006
- Csikszentmihalyi, M. (1996). Creativity: Flow and the Psychology of Discovery and Invention.
- Dahik, A., Lovich, D., Kreafle, C., Bailey, A., Kilmann, J., Kennedy, D., & Wenstrup, J. (2020).

 What 12,000 employees have to say about the future of remote work. *Boston Consulting Group*.
- Damanpour, F., & Schneider, M. (2006). Phases of the Adoption of Innovation in Organizations: Effects of Environment, Organization and Top Managers1. *British Journal of Management*, 17(3), 215–236. https://doi.org/10.1111/j.1467-8551.2006.00498.x

- Deakin, H., & Wakefield, K. (2014). Skype interviewing: reflections of two PhD researchers. *Qualitative Research*, *14*(5), 603–616. https://doi.org/10.1177/1468794113488126
- De Haas, M., Faber, R., & Hamersma, M. (2020). How COVID-19 and the Dutch 'intelligent lockdown'change activities, work and travel behaviour: Evidence from longitudinal data in the Netherlands. *Transportation research interdisciplinary perspectives*, 6, 100150..https://doi.org/10.1016/j.trip.2020.100150
- Dhakal, K. (2022). NVivo. *Journal of the Medical Library Association*, 110(2), 270-272: dx.doi.org/10.5195/jmla.2022.1271
- Dohr, J. H., & Portillo, M. (2011). *Design Thinking for Interiors: Inquiry, Experience, Impact*. https://openlibrary.telkomuniversity.ac.id/home/catalog/id/26561/slug/design-thinking-for-interiors-inquiry-experience-impact-cet-1.html
- Dong, Y., Bartol, K. M., Zhang, Z., & Li, C. (2017). Enhancing employee creativity via individual skill development and team knowledge sharing: Influences of dual-focused transformational leadership. *Journal of Organizational Behavior*, *38*(3), 439–458. https://doi.org/10.1002/job.2134
- Dooly, M., Moore, E., & Vallejo, C. (2017). Research ethics. In E. Moore & M. Dooly (Eds),
 Qualitative approaches to research on plurilingual education (pp. 351-362). Researchpublishing.net. https://doi.org/10.14705/rpnet.2017.emmd2016.634
- Dul, J., & Ceylan, C. (2011). Work environments for employee creativity. *Ergonomics*, *54*(1), 12–20. https://doi.org/10.1080/00140139.2010.542833
- Dul, J., Ceylan, C., & Jaspers, F. (2011). Knowledge workers' creativity and the role of the physical work environment. *Human Resource Management*, *50*(6), 715–734. https://doi.org/10.1002/hrm.20454
- 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
- Elia, G., Margherita, A., & Passiante, G. (2020). Digital entrepreneurship ecosystem: How digital technologies and collective intelligence are reshaping the entrepreneurial process. *Technological Forecasting and Social Change*, *150*, 119791.
- Elsbach, K. D., & Hargadon, A. B. (2006). Enhancing creativity through "mindless" work: A framework of workday design. *Organization science*, *17*(4), 470-483.https://doi.org/10.1287/orsc.1060.0193

- Eisenberg, J., & Krishnan, A. (2018). Addressing virtual work challenges: learning from the field. *Organization Management Journal*, *15*(2), 78-94.
- Eurofound. (2022, May 9). Retrieved from Living and working in Europe 2021:

 https://www.eurofound.europa.eu/publications/annual-report/2022/living-and-working-in-europe-2021
- Eurostat. (2022, July 5). Retrieved from Top 10 growing occupations between Q1 2021 and Q1 2022: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220705-3
- Faulds, D. J., & Raju, P. S. (2021). The work-from-home trend: An interview with Brian Kropp. *Business Horizons*, 64(1), 29–35. https://doi.org/10.1016/j.bushor.2020.10.005
- Fiol, C. M., & O'Connor, E. J. (2005). Identification in Face-to-Face, Hybrid, and Pure Virtual Teams: Untangling the Contradictions. *Organization Science*, *16*(1), 19–32. https://doi.org/10.1287/orsc.1040.0101
- Fisher, C. M., & Barrett, F. J. (2019). The Experience of Improvising in Organizations: A Creative Process Perspective. *Academy of Management Perspectives*, *33*(2), 148–162. https://doi.org/10.5465/amp.2017.0100
- Forsyth, D. R. (2014). *Group dynamics* (6th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Fraser, J., Kinman, G., Breslin, G., Bell, N., Grant, C., Colville, T., ... & Waites, B. (2020, May).

 Easing lockdown: How employers and employees can prepare for the new normal at work.

 British Psychological Society.
- Gerding, T. J., Syck, M., Daniel, D., Naylor, J. C., Kotowski, S. E., Gillespie, G. L., Freeman, A. M., Huston, T. R., & Davis, K. G. (2021). An assessment of ergonomic issues in the home offices of university employees sent home due to the COVID-19 pandemic. *Work-a Journal of Prevention Assessment & Rehabilitation*, 68(4), 981–992. https://doi.org/10.3233/wor-205294
- George, T. J., Atwater, L. E., Maneethai, D., & Madera, J. M. (2022). Supporting the productivity and wellbeing of remote workers: Lessons from COVID-19. *Organizational Dynamics*, *51*(2), 100869. 10.1016/j.orgdyn.2021.100869
- Gilson, L., Maynard, M. T., Young, N. A., Vartiainen, M., & Hakonen, M. (2015). Virtual Teams Research. *Journal of Management*, *41*(5), 1313–1337. https://doi.org/10.1177/0149206314559946

- Grzegorczyk, M., Mariniello, M., Nurski, L., & Schraepen, T. (2021). *Blending the physical and virtual: a hybrid model for the future of work* (No. 14/2021). Bruegel Policy Contribution.
- Harvey, S. (2014). Creative Synthesis: Exploring the Process of Extraordinary Group Creativity.

 **Academy of Management Review, 39(3), 324–343.

 https://doi.org/10.5465/amr.2012.0224
- Jaiswal, A., & Arun, C. J. (2020). Unlocking the COVID-19 lockdown: work from home and its impact on employees. https://doi.org/10.21203/rs.3.rs-34556/v1
- Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International journal of hospitality management*, *51*, 30-41.
- Kabukcu, E. (2015). Creativity Process in Innovation Oriented Entrepreneurship: The case of Vakko. Procedia - Social and Behavioral Sciences, 195, 1321–1329. https://doi.org/10.1016/j.sbspro.2015.06.307
- Kallio, T. J., & Blomberg, A. (2009, July). Organizational creativity in academic journals: a literature review. In 25th EGOS Colloquium: Passion for creativity and innovation, energizing the study of organizations and organizing, Sub-theme 34: Organizational creativity: The overlooked, understudied, and much missed.
- Kozlowski, S. W. J., & Bell, B. S. (2013). Work groups and teams in organizations: Review update.

 In N. Schmitt & S. Highhouse (Eds.), *Handbook of Psychology: Industrial and Organizational Psychology* (2nd ed., Vol. 12, pp. 412–469). Wiley.
- Landy, F. J., & Conte, J. M. (2013). Work in the 21st Century: An Introduction to Industrial and Organizational Psychology. *Wiley eBooks*.
- Lechner, A. J., & Mortlock, J. T. (2021). How to create psychological safety in virtual teams. *Organizational Dynamics*, *51*(2), 100849. https://doi.org/10.1016/j.orgdyn.2021.100849
- Lee, J. (2018). The Effects of Knowledge Sharing on Individual Creativity in Higher Education Institutions: Socio-Technical View. *Administrative Sciences*, 8(2), 21. https://doi.org/10.3390/admsci8020021
- Leenders, R. T. a. J., Van Engelen, J. M. L., & Kratzer, J. (2003). Virtuality, communication, and new product team creativity: a social network perspective. *Journal of Engineering and Technology Management*, 20(1–2), 69–92. https://doi.org/10.1016/s0923-4748(03)00005-5

- Luo, C., Lan, Y., Luo, X., & Li, H. (2021). The effect of commitment on knowledge sharing: An empirical study of virtual communities. *Technological Forecasting and Social Change*, *163*, 120438. https://doi.org/10.1016/j.techfore.2020.120438
- Maalsen, S., & Dowling, R. (2020). Covid-19 and the accelerating smart home. *Big Data & Society*, 7(2), 205395172093807. https://doi.org/10.1177/2053951720938073
- Martens, Y. (2011). Creative workplace: instrumental and symbolic support for creativity. *Facilities*, 29(1/2), 63–79. https://doi.org/10.1108/02632771111101331
- Maurer, M., Bach, N., & Oertel, S. (2022). Forced to go virtual. Working-from-home arrangements and their effect on team communication during COVID-19 lockdown. *German Journal of Human Resource Management*, *36*(3), 238–269. https://doi.org/10.1177/23970022221083698
- Mburu, L. N. (2020). Manifestation of emotional intelligence and Transformational leadership in virtual teams: Case study of Nairobi technology hub. *African Journal of Business Management*, 14(9), 258-270.https://doi.org/10.5897/AJBM2020.9026
- McIntosh, M., & Morse, J. M. (2015). Situating and Constructing Diversity in Semi-Structured Interviews. *Global Qualitative Nursing Research*, *2*, 233339361559767. https://doi.org/10.1177/2333393615597674
- McKinsey. (2020, November 23). Retrieved from What's next for remote work: An analysis of 2,000 tasks, 800 jobs, and nine countries: https://www.mckinsey.com/featured-insights/future-of-work/whats-next-for-remote-work-an-analysis-of-2000-tasks-800-jobs-and-nine-countries
- McKinsey. (2022a, April 20). Retrieved from Hybrid work: Making it fit with your diversity, equity, and inclusion strategy: https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/hybrid-work-making-it-fit-with-your-diversity-equity-and-inclusion-strategy
- McKinsey. (2022b, October 21). Retrieved from Tech at the edge: Trends reshaping the future of IT and business: https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/tech-at-the-edge-trends-reshaping-the-future-of-it-and-business
- McKinsey. (2021, May 17). Retrieved from: What executives are saying about the future of hybrid work: https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/what-executives-are-saying-about-the-future-of-hybrid-work

- Meinel, M., Maier, L., Wagner, T., & Voigt, K. I. (2017) Designing creativity-enhancing workspaces:

 A critical look at empirical evidence. *Journal of Technology and Innovation*Management, 1(1). https://ssrn.com/abstract=3051058.
- Microsoft. (2021, March 22). Retrieved from The Next Great Disruption Is Hybrid Work—Are We Ready?:

 https://assets.ctfassets.net/y8fb0rhks3b3/1VWL4Cqu912Y1zMIte6Ege/e9421a8f035f178e3
 - 2b2d944b1107522/2021 Microsoft WTI Report March.pdf
- Microsoft. (2022, September 22). *Hybrid Work Is Just Work. Are We Doing It Wrong?* Retrieved from https://www.microsoft.com/en-us/worklab/work-trend-index/hybrid-work-is-just-work: https://www.microsoft.com/en-us/worklab/work-trend-index/hybrid-work-is-just-work
- Microsoft (2022, March 16). *Great Expectations: Making Hybrid Work Work.* Retrieved from Microsoft: https://www.microsoft.com/en-us/worklab/work-trend-index/great-expectations-making-hybrid-work-work
- Milbrandt, M. K., & Milbrandt, L. (2011). Creativity: What Are We Talking About? *Art Education*, 64(1), 8–13. https://doi.org/10.1080/00043125.2011.11519105
- Miro. (2023). Het online-whiteboard voor makkelijke samenwerking: https://miro.com/nl/online-whiteboard/
- Mitchell, A., & Brewer, P. E. (2022). Leading hybrid teams: Strategies for realizing the best of both worlds. *Organizational Dynamics*, *51*(3), 100866. https://doi.org/10.1016/j.orgdyn.2021.100866
- Muzzio, H., & Barbosa, F. (2018). Organizational Creativity Management: Discussion Elements.

 RAC: Revista De Administração Contemporânea, 22(6), 922–939.

 https://doi.org/10.1590/1982-7849rac2018170409
- Nayal, P., Pandey, N., & Paul, J. (2021). Covid-19 pandemic and consumer-employee-organization wellbeing: A dynamic capability theory approach. *Journal of Consumer Affairs*, *56*(1), 359–390. https://doi.org/10.1111/joca.12399
- Nolan, A., White, R. H., Soomro, M., Dopamu, B. C., Yilmaz, M., Solan, D., & Clarke, P. (2021). To Work from Home (WFH) or Not to Work from Home? Lessons Learned by Software Engineers During the COVID-19 Pandemic. In *Communications in computer and information science* (pp. 14–33). Springer Science+Business Media. https://doi.org/10.1007/978-3-030-85521-5 2

- O'Leary, & Cummings, S. (2007). The Spatial, Temporal, and Configurational Characteristics of Geographic Dispersion in Teams. *Management Information Systems Quarterly*, *31*(3), 433. https://doi.org/10.2307/25148802
- O'Reilly, M. F., & Parker, N. (2013). 'Unsatisfactory Saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research*, *13*(2), 190–197. https://doi.org/10.1177/1468794112446106
- Pataki-Bittó, F., & Kapusy, K. (2021). Work environment transformation in the post COVID-19 based on work values of the future workforce. *Journal of Corporate Real Estate*, *23*(3), 151–169. https://doi.org/10.1108/jcre-08-2020-0031
- Pelaprat, E., & Cole, M. (2011). "Minding the Gap": Imagination, Creativity and Human Cognition.

 Integrative Psychological and Behavioral Science, 45(4), 397–418.

 https://doi.org/10.1007/s12124-011-9176-5
- Perolini, P. (2014). Interior environments: The space of interiority. *Zoontechnica: The Journal of Redirective Design*,(3), 1-5.
- Qin, X., Yam, K. C., Chen, C., Li, S., & Dong, X. (2021). Talking about COVID-19 is positively associated with team cultural tightness: Implications for team deviance and creativity. *Journal of Applied Psychology*, 106(4), 530–541. https://doi.org/10.1037/apl0000918
- Rashid, S., & Ratten, V. (2021). Entrepreneurial ecosystems during COVID-19: the survival of small businesses using dynamic capabilities. *World Journal of Entrepreneurship, Management and Sustainable Development, ahead-of-print*(ahead-of-print). https://doi.org/10.1108/wjemsd-09-2020-0110
- Ratten, V. (2020). Coronavirus (Covid-19) and entrepreneurship: cultural, lifestyle and societal changes. *Journal of Entrepreneurship in Emerging Economies*, *13*(4), 747–761. https://doi.org/10.1108/jeee-06-2020-0163
- Reed, K. M., & Allen, J. A. (2021). Suddenly virtual: Making remote meetings work. John Wiley & Sons.
- Reiter-Palmon, R. (2018). Creative Cognition at the Individual and Team Levels. In *Cambridge University Press eBooks* (pp. 184–208). https://doi.org/10.1017/9781108185936.015
- Reiter-Palmon, R., Kennel, V., & Allen, J. P. (2021). Teams in Small Organizations: Conceptual, Methodological, and Practical Considerations. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyq.2021.530291

- Reiter-Palmon, R., Kramer, W., Allen, J. P., Murugavel, V., & Leone, S. (2021). Creativity in Virtual Teams: A Review and Agenda for Future Research. *Creat!Vity*, 8(1), 165–188. https://doi.org/10.2478/ctra-2021-0011
- Richter, A. (2020). Locked-down digital work. *International Journal of Information Management*, 55, 102157. https://doi.org/10.1016/j.ijinfomgt.2020.102157
- Rickards, T., & Moger, S. (2000). Creative Leadership Processes in Project Team Development: An Alternative to Tuckman's Stage Model. *British Journal of Management*, *11*(4), 273–283. https://doi.org/10.1111/1467-8551.00173
- Rosing, K., Frese, M., & Bausch, A. R. (2011). Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership. *Leadership Quarterly*, *22*(5), 956–974. https://doi.org/10.1016/j.leagua.2011.07.014
- Runco, M. A., & Kim, D. (2013). Four Ps of Creativity and Recent Updates. In *Springer eBooks* (pp. 755–759). https://doi.org/10.1007/978-1-4614-3858-8_429
- Rosso, B.D. (2014). Creativity and constraints: Exploring the role of constraints in the creative processes of research and development teams. Organization Studies, 35(4), 551–585. https://doi.org/10.1177/017084 0613517600
- Samani, S. A., Rasid, S. Z. A., & Sofian, S. (2014). A Workplace to Support Creativity. *Industrial Engineering and Management Systems*. https://doi.org/10.7232/iems.2014.13.4.414
- Saunders, M., Lewis, P. & Thornhill, A. (2016). Research methods for business students (7th ed.). Pearson Education.
- Schilleci, P. (2022). Exploring the impact of the physical work environment on service employees: an analysis of literature. *Journal of Facilities Management*. https://doi.org/10.1108/jfm-09-2021-0099
- Schwarz, M., Scherrer, A., Hohmann, C., Heiberg, J., Brugger, A., & Nuñez-Jimenez, A. (2020). COVID-19 and the academy: It is time for going digital. *Energy Research and Social Science*, 68, 101684. https://doi.org/10.1016/j.erss.2020.101684
- Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, *3*(7), 749–752. https://www.allresearchjournal.com/archives/2017/vol3issue7/PartK/3-7-69-542.pdf

- Shehni, M. C., & Khezrab, T. (2020). Review of literature on learners' personality in language learning: focusing on extrovert and introvert learners. *Theory and Practice in Language Studies*, 10(11), 1478-1483. http://dx.doi.org/10.17507/tpls.1011.20
- Singh, S., Thomas, N., & Numbudiri, R. (2021). Knowledge sharing in times of a pandemic: An intergenerational learning approach. *Knowledge and Process Management*, *28*(2), 153–164. https://doi.org/10.1002/kpm.1669
- Smith, S. A., Patmos, A., & Pitts, M. J. (2018). Communication and Teleworking: A Study of Communication Channel Satisfaction, Personality, and Job Satisfaction for Teleworking Employees. *International Journal of Business Communication*, 55(1), 44–68. https://doi.org/10.1177/2329488415589101
- Sokolic, D. (2022). Remote work and hybrid work organizations. *Economic and social development: Book of proceedings*, 202-213.
- Taggar, S. (2019). The Cognitive Underpinnings of Creativity in Teams. *The Oxford handbook of group creativity and innovation*, 11.
- Thompson, N. (2018). Imagination and Creativity in Organizations. *Organization Studies*, *39*(2–3), 229–250. https://doi.org/10.1177/0170840617736939
- UHasselt. (2022, November 3). From Responsible research. Retrieved from: https://www.uhasselt.be/en/research/responsible-research
- Van Der Meulen, N., Van Baalen, P., Van Heck, E., & Mülder, S. (2019). No teleworker is an island:

 The impact of temporal and spatial separation along with media use on knowledge sharing networks. *Journal of Information Technology*, *34*(3), 243–262.

 https://doi.org/10.1177/0268396218816531
- Walia, C. (2019). A Dynamic Definition of Creativity. *Creativity Research Journal*, *31*(3), 237–247. https://doi.org/10.1080/10400419.2019.1641787
- Walker, J. L. (2012). The use of saturation in qualitative research. *PubMed*, *22*(2), 37–46. https://pubmed.ncbi.nlm.nih.gov/22803288
- Whillans, A., Perlow, L., & Turek, A. (2021). Experimenting during the shift to virtual team work:

 Learnings from how teams adapted their activities during the COVID-19

 pandemic. *Information and Organization*, 31(1),

 100343.https://doi.org/10.1016/j.infoandorg.2021.100343Get rights and content

- WHO. (2020, March 11). Retrieved from: WHO Director-General's opening remarks at the media briefing on COVID-19 11 March 2020: https://www.who.int/director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020
- Yang, J. (2004). Job-related knowledge sharing: comparative case studies. *Journal of Knowledge Management*, 8(3), 118–126. https://doi.org/10.1108/13673270410541088

Appendixes

Appendix 1: Interview protocol

First of all, I would sincerely like to thank you for participating in this interview. Before we start this

interview, I would like to address some important matters to give you a better overall impression of

this interview's meaning and the underlying concept. In addition, you may interrupt me to clarify

the question or if I have to repeat the question. If you feel uncomfortable with any question or do

not know the answer, you can honestly address this. During the interview, there are no incorrect

answers to the questions I am about to ask you. Overall, it is of crucial importance to me that you

are yourself and feel comfortable throughout the entire interview.

Secondly, the reason for this interview is as followed. As you already know, I am currently writing

my master's dissertation on how physical-social conditions and digital collaboration tools can

influence the hybrid work environment. I am particularly interested in the hybrid transition, also

called the 'next normal', in your industry within the organization you work and how this impacted

the interactions with your co-workers and the team's creative output. In addition, I would like to

know what physical (e.g., office-layout, furniture, decoration components and spaces) and social

conditions (e.g., psychological safety, team cohesion, trust and leadership style) play a pivotal role

in the drive of team creativity in the hybrid work environment.

Finally, I would like to kindly ask for your permission to record the interview with Google Meet or

Microsoft Teams or any other digital application, according to your preference. The interview will be

audio-recorded and stored. For further information on this topic (see the attached consent form with

the GDPR guidelines). If you prefer a different option, I am also willing to conduct the interview at

your work or home in accordance with your time schedule. If you rather prefer this option, the

interview will be recorded with my phone or laptop. This recording will only be used by me for writing

the qualitative part of my master dissertation. It will not be shared with third parties. I will not use

your name or mention it anywhere, only your respondent number an initials will be stated.

Many thanks in advance for your response and possible participation in this study.

Please do not hesitate to contact me if you have any additional queries.

You can contact me via:

Mail: vanrossum.simon@student.uhasselt.be

LinkedIn: https://www.linkedin.com/in/simonrobinvanrossum/

Phone number: +31682783125

I am looking forward to hearing from you.

Kind regards,

Simon van Rossum

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Appendix 2: The GDPR Consent Form



Hereby, I consent to take part in a study that Simon van Rossum of Hasselt University is conducting for his master's dissertation. The purpose of this document is to specify the terms of participation in the study.

- 1. I have been given sufficient information about this research. The purpose of my participation has been clearly explained to me.
- My participation in this study is voluntary. There is no explicit or implicit coercion whatsoever to participate.
- 3. Participation entails responding to the interviewer's questions while they are being asked.
- 4. The interview will approximately last for between 1 hour and 1 hour and 30 minutes. I allow the researcher to take notes during the interview. <u>I also allow that this interview will be audio-recorded.</u> In case, I do not want the interview to be recorded, I am fully entitled to withdraw from participation at any point.
- 5. I have the right not to answer any of the questions. If I feel uncomfortable during the interview, I have the right to withdraw from this study.
- I have been give explicit guarantees that, if I wish so, the researcher will not identify me by name or function in any reports using information obtained from the study and that my confidentiality as a participant in this study will remain secure.
- 7. I have been assured that for research issues or any other inquiries regarding the research project, the principal investigator, Simon van Rossum, can be contacted through his supervisor Professor Allard van Riel and coach Melisa Yildiz and can be contacted by mail allard.vanriel.@uhasselt.be and melisa.yildiz@uhasselt.be.
- 8. I have read and understood all of the guidelines and statements of this consent form.
- I have all my questions answered to my satisfaction, and I voluntarily agree to participate in this research project.

Appendix 3: Consent forms (permission to use images)

Consent form 1

Legal Simplicity

All photos and videos on Pexels can be downloaded and used for free.

What is allowed?



 $\sqrt{\text{All photos}}$ and videos on Pexels are free to use.

 $\sqrt{}$ Attribution is not required. Giving credit to the photographer or Pexels is not necessary but always appreciated.

√ You can modify the photos and videos from Pexels. Be creative and edit them as you like.

What is not allowed?



X Identifiable people may not appear in a bad light or in a way that is offensive.

X Don't sell unaltered copies of a photo or video, e.g. as a poster, print or on a physical product without modifying it first.

X Don't imply endorsement of your product by people or brands on the imagery.

X Don't redistribute or sell the photos and videos on other stock photo or wallpaper platforms.

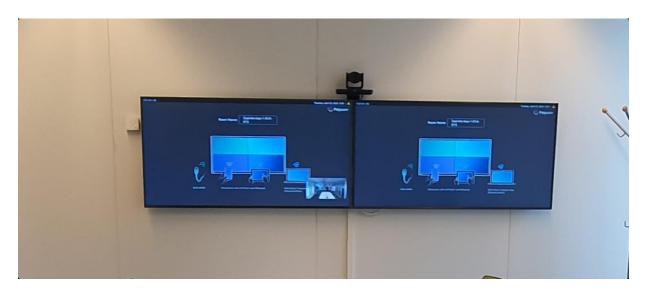
Source: Pexels (2023)

Consent form 2

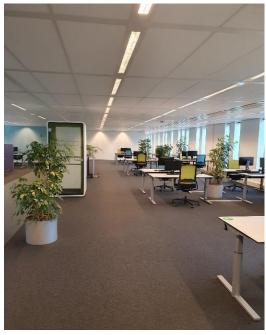
Permission to use images

Hereby, I grant permission to, Simon van Rossum, student at Hasselt University, to use the below-displayed images for the results and goals of his master dissertation. These images will only be used for the purposes of the thesis and to achieve the results. The name of the company (with the relevant photos) is not mentioned in the master's thesis. However, the companies will not be referred to their names, but to for example: company A, when using, for example, image 1.

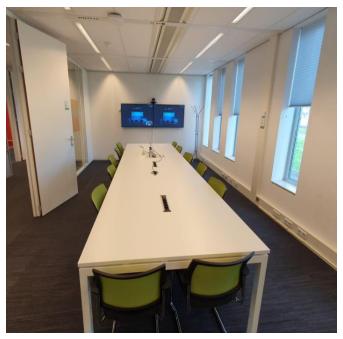
It concerns the following photos that the student/researcher, Simon van Rossum, wants to use for his master's thesis:















Hereby, I officially agree with the terms and conditions of this form, and that the researcher and student, Simon van Rossum, at Hasselt University, uses the above images for the results and goals of his master dissertation.

Signature:

17 mei 2023

Consent form 3

Permission to use images

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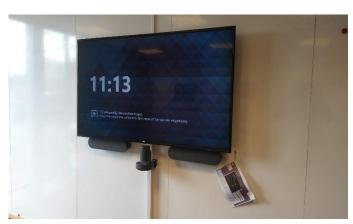










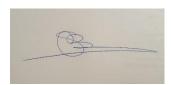






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Appendix 4: The interview list

Introduction

The participation and completion of this interview will take approximately between 1 hour and 1 hour and 30 minutes of your time. This interview consists of four themes:

- Introduction: during the this you will be asked about your current job role at the firm and your main job tasks in the R&D team.
- Theme 1: The workplace environment
- Theme 2: Physical conditions
- Theme 2: Social conditions
- Theme 4: Team creativity

Closing: There here will be one last closing questions about the employee's or managers' overall experience and view regarding this interview and the topic.

Introductory questions

Question 1: Could you briefly introduce yourself?

Question 2: Could you describe your current job role and the level of responsibility it entails? For example, what are the most common and important tasks during your job?

Theme 1: Teams

Question 3: What makes the team setting effective you work in (e.g., conventional, virtual or hybrid)?

Question 4: In which ways is the team setting different than before the pandemic?

Theme 2: Physical conditions

Question 5: How do you experience your physical presence in the office environment?

Question 6: What is missing when you are sitting in your home-office?

Theme 2: Social conditions

Question 7: What things that your manager implements do you consider to be effective in order to improve team creativity in your work environment?

Question 8: What can be done on a social level to improve a problem that a certain work setting can cause within the team?

Theme 3: Team creativity

Question 9: How must the team improve its social interactions in the environment in to enhance team creativity (problem identification, idea evaluation and idea championing)?

Question 10: Which digital collaboration tool influences the stages of team creativity the most (problem identification, idea evaluation and idea championing)?

Question 11: Which of those stages is most affected by digital tools and applications?

Closing

Many thanks for already answering all of these questions and for your time so far. I genuinely appreciate this. We have almost finished this interview, but before we do, I would like to ask you two more questions.

Question 12: How do you expect the your work environment to develop or evolve within the next decade?

Appendix 5: Company information

To get a better impression of the companies from the interviewees background information of the company must be provided. Therefore, some information has been given on each company about their industry, mission, goal, vision and values. Most of the companies are all part of the IT industry.

Company K

Supplier of telecommunications and ICT services and offers consumers fixed and mobile telephony, internet, and television. For business customers, Company K offers comprehensive telecommunications and ICT solutions. Company K provides global carriers with wholesale network services. Company K's goal is to connect everyone in the Netherlands in a sustainable way. They are experts in building networks and services that are safe, secure, dependable, and future-proof so that people and devices can connect anytime and anywhere.

Company AC

AC is a market-leading provider of professional services that supports the development of the digital core, operational optimization, accelerated revenue growth, and enhancement of citizen services for the world's leading corporations, governments, and other organizations producing real value efficiently and rapidly at scale. AC shows their partners and clients how to use new and emerging technology to change (e.g., AI, VR and Metaverse) the way of work in businesses through strategic growth across the globe. AC offers unsurpassed services in strategy and consulting, interaction, technology, and operations to address and solve the most challenging problems for its clients.

Company SF

SF founders developed a CRM system. This innovative "software as a service" (SaaS) business model swiftly swept the IT industry. SF's product has expanded in scope and becomes increasingly complex over the previous few decades. The majority of the biggest and most significant businesses, governments, and organizations in the world now depend on SF for core services.

Company HB

A modest installation company that employs more than 1,600 people. They have been developing solar panels, heat pumps, and other installations that prolong the life of planet Earth for years. HB is built on a foundation of sustainability. Their goal is to be the Netherlands' most environmentally friendly installation.

Company GS

The company gained international recognition for its work in the field of metal extraction from product streams. GS has grown to be a significant participant in several industries, including food, transportation, and aerospace, and advancements continue to expand. GS creates high-tech magnet components and industrial magnet systems. These magnets are used by a variety of industries around the world, including those in the food, automotive, recycling, metal, pharmaceutical, offshore, chemical, and high-tech sectors.

Company TFS

TFS is the market leader in providing services to the scientific community. Their goal is to empower people to improve the planet's safety, health, and environment. TFS is here to serve their customers, whether it is about advancing life sciences research, resolving challenging analytical challenges, boosting lab productivity, enhancing patient health through diagnostics, or developing and manufacturing life-changing treatments. Their global team offers an unmatched combination of cutting-edge technology, purchasing ease, and pharmaceutical services through their industry-leading brands.

Company M

This company is a pioneer in changing the way food is processed on a global scale by offering the poultry, meat, and fish processing industries products, services, and software in addition to the recently acquired verticals of pet food, aqua feed, and plant-based proteins. This company assists in the production of high-quality, safe, and cheap food. Together with their clients, they are revolutionizing the food processing industry. In the world, this company envisions, high-quality food is produced in a cost-effective and sustainable manner.

Company KD

This IT facet of the company is a driving force behind the global expansion and digital transformation of the business. The other part of the company is one of the leading global manufacturers of construction materials and resources. They deliver and produce high-quality construction materials for interior design, building insulation, design ceilings, and interior design materials across the globe. KD provide cutting-edge IT solutions and technology services to 40,000 of their employees and clients.

Appendix 6: Interview transcriptions

Interview Transcription 1

First of all, thank you Participant 1. Thank you for participating in this interview online. As you already you know this interview will be recorded and solely used for the purposes of this thesis and its transcription. I have informed you via mail and phone about this.

That's true. No problem.

Could you briefly introduce yourself?

I'm Participant 1, 29 years old. I'm currently working as a senior data engineer at Copmany TFS. Company TFS is an electronic microscope company where one of the F100 companies, I think our current spot is somewhere in the 80s. My main focus as a data engineer is ensuring that the correct data comes from the source and goes to the correct stakeholder. Umm. Other than that, I studied in Eindhoven. My background is operational management and logistics, so I've moved from a business management position to a very technical position. And I think that's the professional background information of me.

Okay, great. Sounds very interesting. Thank you. And how long have you been working in the IT industry? Could you describe more specifically what, for example, your most common tasks are during your job?

Then let me give you some background from how I've reached my current position. So I started as a stakeholder. As I mentioned, I studied operational management and logistics. That means that I've worked in a very operational field of logistics. However, if you look at the field nowadays, IT is just everywhere. So in the past, we've done a lot of calculations. We've done a lot of mathematics. We've calculated everything by hand and slowly we've used the computer more and more and we've seen that different fields have been growing. So if you look at what has been growing, data science is a very big growing field and is better known as AI machine learning, and that's where I started. So I in the past I worked for companies like Nike and I've built forecasting algorithms over there. It sounds very fancy and complicated, but basically we've just got a lot of data that I create a model that that data would get computed in such a way that we would get the forecasters output. So basically you throw a lot of data in and you would get very specific. OK, this specific shoe is going to sell 100,000 times in the US, in the in the Netherlands, in Romania, wherever in the world that we want to know. That's where I started. However, I'm a big fan of something called the bull-whip effect. And that can be basically described as the closer you are to the source, the more impact you can have. So like a bull- whip, if you give it a shade the movements at the beginning seem very small. However, the movement at the end of the whip, they are humongous. So a data scientist, yeah, that's one of the positions. That's all the way at the end, all the data has already been prepped and only thing I do is I put it in a model and then I provide it to the business. Where I am at now is data engineering and that's actually all the way at the beginning, so it's at the source. And slowly you from my positions, I've done high mathematics algorithm calculations that companies like Nike, ASML, Company TFS, Basf & Cargill as well. However, I seen that the clothes you are to the source,

the more impact you can have on the company, on the results and that's why I've moved towards data engineering. So some information about what date engineering is. It's very close to the source. It's like database management.

OK. Yeah. Yeah, you go ahead.

Yeah, yeah, very interesting. Super interesting. And I would like to come back later to the the thing that you said about closer to the source. You mentioned your individual tasks, but what about team-related tasks?

Okay, that's no problem as I've just mentioned, the engineering is something like database management and there are multiple users over database databases, multiple stakeholders, multiple building. The database is not one person one task. So databases they consist of a lot of different components. One person has to do the administration of the database, one person is focused on security, one person is focused on the platform itself. One person is focusing on the performance. One person is focusing on the architecture. And I as a data engineer, I'm currently focusing on building the database and ensuring that it that it meets all of the required criteria. So it has to perform fast enough that our users are happy it has to perform correct enough that our users can make the correct decisions based on what we provide them. It has to pass through all of the security layers as Company TFS is an international company that pulls data from multiple clients. And yeah, we can't just make a connection to, for example, Samsung, Intel and just pull out the data there. If you look at the news recently, a very big famous company in the Netherlands called ASML, yeah, they had a problem with data leakage. So security is a very big part of it and. I'm just one person. I can't be an expert on everything. However, I can have minimum knowledge of all different fields and that's where we need a team. So I'm the I'm an expert on database knowledge. I'm an expert on the code behind that. However, I'm not an expert on security. That's where I would need it a team member. A colleague who can advise me in that regard. I also am not an expert on the subject of Microsoft itself, so there I would need a colleague who can explain me. Okay, the microscope has this kind of has this kind of attributes this kind of research are done on microscopes. This kind of data is provided. So yeah, basically we're working together to provide one good data platform, one good database for our business.

Yeah, sounds super interesting. When I reached out to you, you told me you're working hybrid, so that means like a combination and mixture of the conventional work setting and the digital work from home setting. So could you tell me something more about that, what's the hybrid work ratio in your team?

Yes, sure. As I mentioned, Company TFS is an international company. We work with a lot of colleagues from all over the world. So one of our main offices is in Eindhoven. However, one of our other main offices Bromouv, Czech Republic. One of our other main offices is in Hillsborough in the US. One of our other main offices is in Shanghai, in China. So yeah, we are all working digitally. Yeah, one of the main reasons is of course different time zones. So how it is currently set up is that we have to be at office at least. One day a week. This is for our team sessions and this is mostly for sessions like whiteboarding. Here we can all sit together and just draw out our ideas on the board.

Of course, this can only be done with the Dutch team in Eindhoven.. And we have similar sessions online as well, but we have noticed that there is a difference in quality of the session itself when we do whiteboarding online or whiteboarding on site. Most things can be done online perfectly. When I'm coding, when I'm creating the database. So when I'm writing codes. Yeah, of course. When I'm my own at home, behind my desk, behind a my computer screen, I can work perfect like that. No problem at all. No distractions, nothing at all. However, when I need team members when I need to work together with other colleagues, then I prefer being at the office. As far as I know, this is all around Company TFS at the beginning of this year from the US they said that they preferred that we would come to the office at least four times a week. However, management has decided that that may work for some offices, our office. It will probably drop our quality as we've noticed that ever since COVID our performance and our output has gone up.

So after COVID, you're the performance of the team and your individual performance have gone up, right?

Yes

That's great and interesting to hear. The reason I think why it has gone up is because you can have office meetings and work session again with the Dutch team. Although hybrid work in team context as can be done in a mingled way as well. Could you describe how that affects, for instance, creative problem solving within your team? So this has several stages. The first stage is problem identification or construction. Could you tell me something about how the hybrid work setting has influenced this?

Of course, no problem. I think in my opinion, one of the most important parts of our office job is having a good mental state. In the past you have to be at office from between 7:00 and 9:00 AM. You arrived and then you will leave around 5:00 PM. You will be at the office the whole day. However, you weren't always perform at maximum capacity. Nowadays with hybrid working you can stay at home. You can take a short rest in between work and then you can continue working afterwards again with the fresh mind. I think that's one of the biggest advantages of working hybrid. At the office it is hard to take a good relax moment. Yeah, well, pretty much whenever you're at the office, a colleague could come to you anytime and ask you something. You would never be able to relax 100%. At home it is different. You can shut down and just take a break and continue afterwards. Another thing that I think is very important is that as you work internationally, you also have to be online and at the evenings. So let's assume you have to work at 7:00 AM you leave, you leave the office at 5.00 PM. Yeah, that's already 10 hours' worth of work. Then you would have to log in again at 9:00 PM because you have a session with the US. That would be another additional 2 hours of work. People are not created and my opinion people are not made to work more than 8 hours at the not even more than 6 hours a day. But as we work.

Hmm, I agree.

Internationally, you have to work in the morning for Asia. You have to work in the afternoon for Europe and you have to work at evening to connect to the US. And with the hybrid work situation, you can now perform after a good rest, and you can split your hours more properly.

Yeah, yeah. I understand. Followed on that, we come to the next stage, which is idea generation. So you would also say in order to have those breaks, you can think more out-of-the-box with a fresh mind. So therefore, it would also the hybrid way of work will also like increase or foster the idea generation within the team. What's your view on this? Definitely one of the other reasons is that you now have a more relaxing environment at the office. Most places have at office yard where basically you're together with multiple colleagues in one small room. You would hear people talking nonstop, and this would also prevent you from thinking properly because you keep getting influenced by others. At home you have acquired area and I think the best way to brainstorm is having a quiet area and just hearing what you need to hear and talking when you need to talk.

And then we come to the next and last phase of team creativity or team creative problem solving which is idea selection and evaluation. So in this stage you and your team members basically evaluate and select the top five ideas and how does that go within your company and what's the advantage of hybrid working in this stage?

Well, I think it's a very stereotype thing. However, stereotypes I usually based on something off the truth, and that is that IT and engineering people are not the most social and not the most quick in solve mid soft skills. By working hard right, we can get an e-mail or we can get a message and we can slowly think about it. We can make proper thoughts and that answer when we thought about our answer, you don't just have to say something as soon as it pops up in your head, you can actually take your time to think about it. That's a very big advantage of working hybrid and working from home, and working online. If you're sitting in front of a director, if you're sitting in front of the senior director of Company TFS, he doesn't have a lot of time. If he asks you something, you want to give an answer now. Because he also has the next session to go to. Online, if you ask you something, you can think about it and send him a mail afterwards. I think taking the time for your yeah, taking time so you can build some proper, you can build something proper that is very beneficial for ideas selection instead of if you hear now if you have the option, you take option 12345 and you have to give an answer within 30 seconds. There's a high chance you wouldn't take the perfect answer. If you have to take option 123 or five and you have 30 minutes to think about it. There's a higher chance you will take the better option.

And you also said like there are some disadvantages, huh? Like for instance, you said in my opinion, like humans are not allowed or should not work more than eight or six hours per day. So could you describe like, some of the disadvantages or other disadvantages that hybrid working brings in those like 3 stages that we just discussed or one of those 3 stages?

I think that idea generation. That could be that could be better on-site. If you're with all people in one room and you all are brainstorming about one subject, that could be very beneficial because

you're only with those people and you only think about one subject. Umm. When you're working from home, you can get forced. It can prevent distractions. However, work from home can also bring other distractions when you're online. It's not as easy to see people's facial facial, people's uuh, their facial....

Expressions.

Yeah, facial expressions! So sitting in one room, all focusing on one topic can have their advantages. Sitting all in one room having no lag, because when I say something, you can probably only hear it a second later can bring disadvantages if multiple people are talking at the same time, there can be too much chaos online, if you're with too many people. I think one of the best things are working on-site is having a whiteboard, drawing everything out and being able to physically move things. If you have a board, you have sticky notes on it. Note, post this or whatever. If you can move it from A to B. That's an amazing advantage, and that's why I think working full-remote is not the perfect solution. That's why I'm a big fan of working hybrid.

Thanks. But what stage would be affected the worst by hybrid working? Is it then the problem identification or the idea selection and evaluation?

I think the first one, the problem identification it may be a bit old school. However, the coffee chats they are very important and so I work in a big company and on the same floor we have operations, we have data science, we have data engineering, we have platform management and I generally don't always talk with them. However, when one subject pops-up. When someone has an issue, they for example, can walk to me or my colleague. When oops, oops, someone finds an issue within our data collector services which I'm a part of. They come and talk to my colleague who sits behind me when I hear that they have an issue with the data collector. It's possible that's connected to my field as well. That's also connected to a database and when working on site this can be very advantageous. Yeah, this can be a big advantage by having an early problem detection. If we would all work online. , all operations with talk to data collector and I would know of it until data collector will come to me that could that could lead to a delay of three days. Three days is humongous.

Yeah, yeah. As you know hybrid work, you communicate like we already discussed digitally or face to face. But how has this affected your trust level with your fellow team members or psychological safety?

What do you mean with that question?

For example, has it affected your trust or psychological safety level regarding your team leader or team members? Do you understand?

Yes, thank you. One of the most important things for me is that everything that is said, particularly regarding any problems on different levels is said within meetings. And I think that taking notes, it's perfect. Whenever a meeting is done, the person who took notes can send it all around to all of the people in that session and everybody knows what we've talked about. If you work online, you can record everything and you can always look back at someone's explanation. This can prevent time. So I think. That. Yeah, you should always know what you're talking about. And you can't just sell

bullshit. Yeah, think it's a good thing for me. The trust went up. And also for me, I just look at outputs. I don't care whether you work 10 hours or you work 1 hour as long as you get as long as you provide the output, that's perfect. And Umm yeah, that's all I need.

So you're psychological safety or trust level among you and team members have gone up because of the hybrid work setting then?

Yeah, you can say that.

What about the communication and trust with your team leader or manager?

I think one of those, that's one of the things that I prefer doing on-site. I have a weekly one-on-one with my manager. Umm. Basically, where we sit just in front of each other, we have a short chat. Like okay, how's it going? Are you still happy if you look at the company. If you look at retention, it's very important to make sure that employees are happy nowadays. And with my manager, I prefer a direct contact. Sure, having those things over teams is fine. However, this is something more. Mm-hmm, about emotions and emotional things. So yeah, those things are just better to have face to face. Once again being able to see the other person in the expression be able to notice when they're happy or not. Sarcasm and those kind of things are hard to understand online, face-to-face and has definitely has its benefits.

Yeah, yeah, absolutely. So you already mentioned like one advantage you know of a working on site having those chit chats you know and the coffee breaks very old fashioned but all doesn't mean necessarily that it's bad. Sometimes it's very good as well. But what is missing is there something else missing when you're sitting in your home-office, you know think about, for instance, physical ambient conditions, the lighting, the setting of the table or something else.

Most companies now, at least most big international companies nowadays, they provide the full-home office. So, I don't think that anything is missing there. I've got a desk for my company. I've got a chair for my company. I've got screens, I've got a laptop, I have got a wireless mouse. I got everything that I need to have a proper Home Office setup.

Okay, so there's no difference resources in comparison with working on-site?

Honestly no, because I have the exact same chair as at the office.

So that, that it doesn't really influence your level of creative performance then which you say?

My equipment? No.

Is there something you know that your team leader can do to improve those physical components in order to foster your creativity and productivity in this regard?

I think everybody is different in that regard, so. Umm. Me personally, I'm a very chaotic person. I can't sit still for very long time unless I'm really focused. So when I need a distraction, I just stand up, take a walk and leave my office behind. My manager's finding that I'm fine with that as well I

think, but this is a very personal question and for me I don't need anything other than no rain outside so I can take a walk.

If you're working, you know in a team which job related-tasks do you recommend to do at your home office and which one in the office you know?

So coding, is something that I definitely want to do at home. So software writing, scripting those kind of things where I need to focus on my screen. I don't want any distraction but I'm focused on my screen and I'm focused on my code. I don't want anybody to bother me. I don't want anybody to talk to me. I turn off my team settings. I sometimes even do, sometimes even turned off my teams totally turn it off that I'm offline, my mailbox gets turned off, everything gets turned off so I can focus on my code and nobody can distract me. That's definitely something that I want to do at home. Something that I prefer doing at the office is, as I mentioned before, the collaboration, the brainstorm sessions, the whiteboard sessions, the things, why you have to physically do something, draw Something, move something. Those things must be done at the office.

Are there certain like file sharing, application tools, or digital mediums that foster your creativity or productivity at work? Could you name some that are highly valuable for teamwork?

Well, there are great examples of productivity. A great example for that would be GIT. GIT is basically a place where you store your code and where you can track changes. Here you can change something. You can see who changed what when you make changes, someone has to approve them. So GIT is pretty much the perfect script sharing area for me.

Okay.

And then for creativity. Before we are at the office, we use Miro. Miro is basically something. I'm not sure if you're familiar with physio of office.

Yeah. Yeah.

Miro is something similar. And it's pretty popular at companies. You can use a cloud version, so whenever I make a change in a Miro board, someone else sees that change real time. So this is one of the things that I like whiteboarding. However, you can't always whiteboard at on site because we need the whiteboard with China. We need to whiteboard and Mexico with the US with the Czech Republic. We can't do everything on-site. Miro is something that's perfect for doing something creative online, and I really like that tool. We also have other two tools that can increase our productivity. A big thing for us for documentation is Confluence. In Confluence you can see who changed what and it is basically a big manual of what has been done. Confluence is connected to multiple other tools and repositories. Currently, I am fan of JIRA. Jira a place where you can create task stories. It works really well and is something that's popular. The other one, is something that is popular in the past. since four or five years ago. So it's called Umm, agile sprints scrum. So basically JIRA, is also a big thing for productivity nowadays. However, if you look at the past a lot of things have popped up. Leen was really popular back then. Now it's agile and in the future it will be something else again. You just have to go with the flow as people keep improving.

But how does that foster the team creative problem solving?

So how that fosters team creative problem-solving is because basically. Uhhm Miro is one big whiteboard. You can put something there. You can move something there. Only its online and it gets tracked, so I think it improves creativity because it's visual. It's not just text, but it's a picture. It's an image and generally people react better to images than to just big blocks of text.

This affirms that famous saying: A picture says more than 1000 words. So it seems that you agree with that one. Could you explain how the support from your team members has changed in the hybrid work setting?

I think one of the biggest advantages of working hybrid is that you're able to answer when the time suits you. Of course there can be high urgency things and you can give them a call so they react immediately. However, when you're focused on something, as I just mentioned with coding, you don't want to get distracted. And generally, you're pretty grumpy when you're really into something and you have to do something else suddenly. So how working hardware has helped me with my team members is that on the days that you are at the office. Generally, we don't write any code at all. We only write code, and we're at home. Remember that the office we focus on, things that are good, yeah, to do on that day. So we have all of our sessions in one day and then the day after we are at home that we can do the coding. I think working hardware has helped us with finding the balance.

Yeah, yeah, I totally got you. Yeah. And so he said that you do hybrid working. So hybrid working has actually definitions. There are jungle of definitions which makes it very complex to understand. So the first one is like, for instance, you work once or twice per week from home. That's the Tuesday and Thursday and the other you work office or vice versa and so do your team members. But sometimes, they work from home and you work in the office. What would be the ideal ratio for the first description of the hybrid work setting? So in your view how many days to work from home per week is the best for you and your team members for the team performance and creativity.

For me as a data engineer and to and someone who works a lot with data related people, I think one day at the office and four days at home is a perfect balance. But this is because we are very technically focused. We are not focused on meetings, we're not focused on having so many chats. We only need one day for all of our setting or for all of our sessions. We need one day to set up architecture and that is enough. Our main focus is writing code. Our performance is calculated by how good is the program that we write working. So we need time to go. If you were, if you looking at the different area of work that can be a different perfect balance. But for data related jobs for software related jobs, I think one day at the office, four days at home is a very good balance.

And what about the second description? Do you have a preference for that that some people TuneIn online and some on site?

I think that on the days that we have all of our sessions, everybody should be there at my office as well. We have one day where everybody is there and the other day is there's no one.

So you would say the first description of hybrid working and so that everybody is at the office on Tuesday and the rest of the days everybody is working from home. That would be the best way of hybrid work in the IT industry in your field and that would thus foster the creative productivity and overall performance of the team, right?

Yes.

Is there like something else that should be done to improve in the communication with your team members or managers or is there something else that should be done in order to identify the problem quicker or solve the problem quicker? What is there anything you can think of that would help in that regard or not or?

I think that's a very general question for everybody it would be different if I look at my specific situation. I think one of the most important things is that even though we work with multiple teams, the multiple people on one project. There shouldn't be high communication barriers, so never work in silos. Always work as a global team and not just as multiple single teams. That's for me, the biggest thing.

Is there anything else you would do to improve the hybrid work setting?

I think that if I look at my colleagues, there's one important thing that helps me working from home and that's a big disadvantage for all the colleagues. This has nothing to do with office itself. This has to do with the personal situation. I'm not a parent yet. However many colleagues of mine are young professionals and they have children who are still infants or toddlers. And I noticed that they prefer working at the office because once, yeah, sure. You can bring the kids to the daycare, but. They come back in the early or in the late afternoon and then it's hard for the people to continue working once they get is home. They are responsible parents. They have to take care of their children as well. And that is just a very big thing on work. So when I look around, I can see that the most efficient hours are between 9:00 AM and 3:00 PM. Yeah. I think that we should be we should be aware of that and that we should. Yeah, we should know. Okay, the important thing should be scheduled between those two time zones or between those two time between the and that time slot and outside there can be more individual things.

So you just described like the youngsters, they like to work in the office as they tend to be more insecure. In order to improve team creativity and productivity, for instance, do you think younger people should be more in the in office setting with either the team leader or some team members?

That depends on how you see it. I think it's not per say that they have to be at office more they need. They need a place to focus and do their thing. As I mentioned earlier, I don't care where you work 10 hours or one hour. I just need that output so if they can work perfectly, if they have the perfect circumstances during those six hours that they can work, then it's perfect. However, they the company should facilitate them so that they can do everything. As I mentioned, I work in a team I am dependent on my colleagues as well. So let's say I have to finish a task before 4:00 PM. But I can't start on it until 2:00 PM. That's no problem for me because I still have two hours to finish the

task. It will be a problem for one of the young adults with children if their kid comes back home at 3:00 PM, they can't be totally focused on that task anymore. So the dependency and the block here that they can't start until 2:00 PM, that should be removed. And I think that we should take into account that everybody, their circumstances are different. And I think that would definitely help.

Yeah. So, but that is one thing. But what do you do from your perspective to help your team member that is young, you know the team leader, it's the main responsibility, but what do you do in order to help these people that struggle with like for instance, working from home? Is there anything you would typically do, for instance, to increase their psychological safety and psychological safety? I mean that they feel at home in the team and that it increases the team cohesion and therefore they can be more productive, more creative and more improving the team output.

I think everybody is different here. However, for me one of the most important things is having a good informal culture so you don't, so as I mentioned before, Agile is really popular nowadays. One of the things that Agile has is a daily standup. During this stand-up you can mentio what you're going to work on, whether you have blockers, whether you have issues, whether you need help with something, some people's view this data stand up as an interrogation where our colleague are asking you. Hey, what did you do yesterday? How? What are you going to do? What are you going to do today? What are you going to do then? I don't like that kind of culture. And I think that could bring insecurities to people. I think that if there's an informal sphere where people love that, where people are happy, that would help with the team's output. That would help with performance. For me personally, I'm a very informal person. I like laughing a lot and I like laughing together with colleagues. So whenever that data stand up happens. It's only 50 minutes and the first 2 minutes we are just talking random things and after that we can totally focus on our task, on our day and on our professional life.

That's a really interesting and insightful perspective from your side. But what about the manager or team leader in order to help that new team member. What can he or she do? I think a team leader should be aware of everybody in the team, their personal circumstances and how they can influence how those personal circumstances can influence their work. It's a team leader, is aware of those things. He can try to prevent them or he can try to work in such a way that they won't have such a big impact. If he doesn't know anything about the personal circumstances that can influence the work, he can't do anything. So he has to know their people, and that's what I think is a very important thing, especially in IT, especially in engineering communication.

And this this can be better done in-person than on a digital level in your opinion or not?

I think that depends. I think emotional talks are definitely important to have face to face. However, once again, that's for me personally. I know that some people prefer doing everything digitally, that it helps them feel safe. So that that can split in two ways.

Okay, great thanks. We are almost done with the interview. I have two more questions. The first one is how do you see the hybrid work setting evolve within the next decade in your work field?

I think that most senior leadership is still done by people who are a little older and who are a bit more old school. They prefer being at the office more often because that's how they grew up with. That's how they grew up and that's what they're used to. I think they will push for more at the office. However, I think now that people are used to the hybrid situation now, people have a better work life balance that people will push back. If I look at how work life balance is, as I mentioned earlier, 12 hours, that's too much. However, when I work from home. I can log off 3 hours earlier. I can log on 3 hours later and then in the evening I can do a bit more. In the past it was normal to just do a full day and then in the evening do a little bit of extra hours. Nowadays, if I would have to go back to the office 9 hours or 8 a day. I won't log on any more in the evening. My managers are aware of it. It's now a situation of give and take, so they can't expect us to be at the office 8 hours a day and then also expect us to be online again in the evening to help a different timezone. So I think that senior director level, they will try to push people, they will try to pull people back to the office. I think that more modern companies will offer the option to do hybrid/full remote and that will attract a lot of younger people and this way there will be a balance between hybrid.

Hmm, okay. Interesting. Then, the last question of this interview. What's your view on team task division in the hybrid work setting? How does that influence it and how can it? And like foster to creativity and productivity of the younger employees?

So what I mentioned before is that agile is really popular nowadays and agile has a good way of dividing tasks, dividing work among team members. Umm, as well, once everybody to be able to do everything within the team and it divides task based on priority. So let's say there's task 1234 and 123 will take 2 weeks and you only have two people and you need to finish within one week. Than that means that if you look at those tasks, 123 will be divided by those two people. And both will finish it within the week. And that's how we work together for will have a low priority. And that can all be done perfectly online. So I think it's not hybrid versus on-site versus full-remote that has a big impact on Cross Division, Responsibility Division, I think way of working is very important there and if we look at the current way of working, that's really popular, which is agile, that is a perfect combination together with hybrid working, remote working on-site working with whatever style working you want is just that. This way of working is good for work division.

And this agile and I've heard of it. I had a course about. It's also something concerning Sprint planning, right?

Yes.

Okay, thank you Participant 1. This was the interview. Thank you so much for your participation.

No worries. You're welcome.

I wish you a great evening and have a great vacation in the USA.

Interview Transcription 2

First of all, thank you for participating in this interview. Much appreciated. Thank you for doing this interview online. Much appreciated. As stated in the e-mail, this recording will be only used for the transcription.

Yeah, I know you sent me the mail with the two attachments. No problem at all.

Okay, thank you. Then I would like to start the interview. Could you start with briefly introducing yourself?

Sure, my name is Participant 2. I am 34 years old. I'm working for a company that is located in Germany. Uh, the company is the one that I work for them in Iran. Its name is Copmany KD . But here in Germany, Company KD is fully digital. It's a very big international company. They have 40,000 employees, in 60 countries and this digital base of the company is actually supporting all these companies. So they work with data analysis. They support them with the digital solutions providing the software solutions. Anything that could actually digitally support those, uh, companies and also for the customers, not just for the companies in those countries. Uh, yeah, I'm working for them. I have been working for, nine months there now, but I have around 10 years job experience. Yeah, anything else you want to know?

What are your most common and important task during the job? So for instance, what kind of responsibility it entails.

We are providing some software solutions for the customers and also for our colleagues that are working in those countries that I mention. But what I am the one who is actually supporting this team. With different kind of tasks that come. Mostly it's about doing research because in order to understand that we are trying to provide value for the customers. But we need to understand that who is our customer, what are their problems and what are their specific needs and then try to solve those. So first, we need to do research to find their pains and try to provide some value for them by adding features in those, uuh, with the software that we have. So what I am doing exactly is that I participate in all the interviews, in all the uuh activity regarding the research. Talking to the customers to the end users and try to understand their pains, their problems. And yeah, uhm, this is what I do. I contact the colleagues that are in those countries to try to find those their target group. I send them an e-mail, I communicate with them. Yeah, and, uuh, I do some research activities as well as providing surveys. Yeah, this is what I do. I do different kind of tests.

Interesting. Could you describe some work activities that predominantly consist of teamwork related-tasks?

I can say that 80% is teamwork, because we collect data and we need to sit together to see, okay, we collected this data first. Okay, then we go to the, for example, the interviews we, uh, collect the data together. We do the interviews together. It's kind of teamwork and then when we have the data and we need to work together in order to try to generate the ideas so to say. Okay, this is what we understood from the research. Okay, what is the next? That what can we do with this? Umm,

what then we think of what kind of ideas can be generated. How we can proceed, and it's I think, it's mostly teamwork because I need to work with the different colleagues, that actually rolls, to uuuh, well, to uuuh discuss about the process that we are working on together.

You just mentioned like a lot of activities. Like some of the interviews were, team related tasks, right?

Yeah..

And what were the other ones that you mentioned?

Umm, uhh, communicating with the colleagues with the market. Yeah, we need to discuss the steps together. We need to know that. Okay, What is the road map? What can we do? How can we solve the problems? We have the data, how we can interpret them, how we can find solutions for them. Yeah, working closely with the colleagues t find the solutions, find the way to solve the problems.

I would come back later to the problem solving topic, and so you set your solely working on a digital basis. So you work from home when you work for the company that as it's already described in the name, Company KD. Yeah, so what is it that you really like about working from home digitally?

In which term do you mean? For example, the problems or there are some advantages, there are some disadvantages. Do you want to hear all of them?

Sure.

Uh, actually, working from home is good. Uhm, at first I wasn't a fan working at home, to be honest. Because I am a very sociable person. Umm, I prefer to work face to face with people and to meet them physically, not just, uh, remotely on Teams, and not just to see them on the screen. But, there are some advantages for working remotely at home because if you don't have the time, you don't necessarily need to spend time to go to the office, and sometimes during the working hours you are okay, sometimes you are not in a good mood and you can manage the task that you have. Maybe after working hours you spent some time to finish the test. So that's a good part of the working from home. But, yeah, as I told you, there are some issues as well because sometimes it will be somehow boring because you want to see people you want to sit at least. Uh, during the lunch time and talking to your colleague for one hour, you know. And in person, face to face, not just the remotely. Uh, so I think, yeah, generally working from home is good because you can and you have more control of your daily hours, so I have a good feeling about that I think. But if you want, I can give you more some more details about that, okay? I will tell you what the consequences are of those advantages and what the consequences are of the disadvantages, okay?

Sure.

So you mentioned that, Okay, uh about, the place that you are working. So it's really important because now, I live in a small room. It's a studio and it's okay. A studio even is a good place for me, but when you work, you have for example, two laptops. You have your personal laptop working for your job, and also one laptop, your personal one. So, when you work, you have a lot of stuff, extra

stuff that you need to manage the space. Yeah, I think, uh, the space is very important. That can affect even productivity and it's important to have enough light in your room. Uh, sometimes I feel I say, okay if I want to work next year remotely, I need to have a bigger place. I need to have an even one. One single room just only for work. One room just for work. Not just separate the place that I work with, with the place that I live, you know? So I think this is, uuh, something that if you have a can affect you in your productivity and have a better performance in working from home.

Okay, I understand about the productivity. What about creativity?

Uh, for creativity. Uh, so it's a very general question that you are asking about creativity I think. The creativity is somehow related to your productivity. So and also those things that I mentioned that if you have a place that has a good physical environment. Definitely affects your creativity, because for team creativity. Uh, if you want to be creative, you, yeah, need to have a space that is good enough for working because you need to focus. You need to concentrate on the test that you have. Yeah, you need to, uh, go in depth to that issue that you are, uh, working on. So, I think there is a relationship between the situation that a person who is working at home has with creativity. If you have a good place. If you have, uuuh, uuh, those criteria that I mentioned someone would definitely be more creative. It's very important to have a good feeling about the place that you are working. If you have that if, uuh, uuhm, you can manage the work life balance, which will affect your creativity as well.

What could the organization or manager do to improve your working from home situation?

Umm, I think, uh, a some equipment, some facilities can affect. But as I told you, for example, providing a bigger screen, I received a small laptop, so I always try to see what they are sharing my colleagues and it's a little bit annoying for me and. Umm, but on the other hand, if I have a bigger screen, I don't have enough space to put it, you know? So I don't know, maybe the manager can consider this situation, can talk to the employees to see what their problems are in this regard? For instance, okay, how is the place that you are working at? They say, okay, just work at home, but if you're manager says. Okay, just like this interview, describe the place that you are living and explain what needs to be offered to you. I am not saying they should provide everything to you that you desire, but they can generally support me and others with they can provide some extra equipment, like a screen, I told you. They can consider the budget that they have, and on the other hand, the manager should consider the situation that the person has working at home. For example, I am single, but if a person is married, for example, it's important to see that. Okay, this person probably has one kid. I don't know. So that person should manage the situation sometimes. Maybe he is not available for one hour, but we are okay with this because we understand the situation that that person has, you know, understanding the situation of the person is very important. And if they can support me or my colleagues that would be nice and it's kind of psychological safety for them if they feel good. It's about reciprocity you know. It's do good things that you receive good things. If they see that, okay, they are considering my situation. They are providing a good situation for me. They understand my problems. We will try even work more than what is our duty, you know. So it's important that they understand the problems of the employees and try to solve it. Uuh, mentally or physically.

Okay, and what about how to creatively decorating or designing your room in order to be creative and productive for your job?

I think it could be a nice idea, umm. But how to design it? How to decorate it is one thing and another thing is how to support them, you know because then when you don't have a place that is good enough to change the decoration or change the design, it's not possible for them to do that. But if there is a possibility to do that, uh, that is a good idea, but first they need to understand the situation that the person has. If it is possible to change the design based on because it's something that normally you do, you know. Uh, but, umm, how to explain balance your work life. You know for me it makes more sense because before COVID people worked mostly in the office, but after COVID even like my job position that you see companies are mentioning in the job description that its remote and digital. So maybe the employees are not that much aware of all the details of how they can balance their work life and manage their personal life, and their work life. So it's good that there would be some, uuh, training courses for some workshops to even share their ideas with each other, for example, maybe I it's good idea that I sit with my colleagues and everybody describes the place that they are living and say. Okay, how I changed it because based on my interest and give advice to do each other, say, okay I have this problem I have for example, I have two kids. Therefore, I cannot focus on my task. What do you do? For example, Isabel, you are also in the same situation or Jack, what do you do? They say, okay, I try to do this. I can give you the advice to do this. So if they have a good collaboration with each other and share their ideas. It would be probably a good idea to help each other.

So basically what you suggest is like the team with the manager should altogether sit around the table? Well, that's difficult if you work in a virtual setting, but let's say online like we do now and discuss these kind of issues and like in how the organization can support them, or at least be like a bit more understanding.

Yeah, exactly. I think it's very useful because those people you know, if you go to a training course or if you search on the internet, it's also a good idea to see that what is the solutions for the problems that you might see when you work at home. But the people who are working together, they have the same, uh, issues because they are working together on one. For example, project at the same company the same organization, that the culture of the organization is the same, the task that they have is the same, so maybe it can help that they share the ideas even they can understand each other, you know. You say, okay, this person over colleague has this issue. Even I see that for example sometimes my colleagues say that okay, actually I'm sorry I'm late because I have two kids and they were crying and I had to go and see that what I can do for them. So yeah, imagine that they are sitting together, as you said, sitting around the table and share their problems with each other and see that how they can give advice to each other. Yeah, this will be a good idea.

What about team composition? Should organizations or managers look at team composition and place different kinds of people with different lifestyles in the hybrid work setting in order to complement each other as a team? What's your take on this?

I don't think it's, uh, it could be. Uh, something that's is functional because you know. Umm, the first important thing for the employer is your skills and your knowledge. If nobody comes and say, okay, I will consider for example, for this position a single person and this position that is working with this person a married one, they can't understand each other or they can work better with each other. No, they don't do that. And I think it's not a good idea to be honest, to work like that. Did I understand your question, well?

No. It's not about hiring people. It's about employees that are already within your team.

Ohh. It's comes even after the workshop that I mentioned. If they understand each other's problems and see that how actually, what problems each person has, what issues what lifestyle that each person has, they can consider this that you said. Say for example, okay, maybe this task could be done by this person better than the other one because that person has a situation that fits this task better then he works on the other tasks, not the ones that, for example, where he needs to always be available. Going to the meetings online with the customers, for example, a person who has a some issues like this for example, is married or has two kids. Uh, can work on the data, you know later on, but because he is living in a space that is more busier and he cannot concentrate doing the task as that needs more concentration at the moment when doing an interview with a customer, you know what I mean? Umm. So it would be possible. Yeah, for instance, if in the situation that you say if they try to separate the task based on their lifestyle and the problems that probably have. I think that would be good and increase the trust and psychological safety in the team. As people help each other out and it allows them to think more clearly, calmly and creatively. The team might be more productive in this way.

You work solely virtual and in a virtual team setting, would you suggest that a hybrid work setting will be a better solution for you and your colleagues?

I think the hybrid work setting is better because of... you know, sometimes you need to just uh, stay at home and stay in your room and concentrate on the task that you have to be very much in depth. You need to focus and think clearly and creatively in order to complete the task or solve the problem. Uh, because if you work in an office, not all the organizations are providing the room for you that you need to work properly and creatively alone. You can work alone, so most of the time you have some colleagues in the room that you are working, and they might. For example, their phone is ringing or they are talking to other people. They are doing something that it would be somehow a distraction for you while working in an office. But the hybrid work setting I would say is the best one because it can provide according to the situation of the employees of the tea. As I told you, for example, okay, I am person that prefers to as a stay at home and because I want to concentrate on my task, but I am also a sociable person. I want to see my colleagues. So yeah, it can be both of them. I can receive the advantages of both of them when I have the task that I need more concentration, I can say my role in my room at home. If I feel that I have, it's about my personal experience.

Why?

Because for me, I am living alone. So there is no distraction. It's not about the person is living with his kids and his wife. So if you have, a place that is a peaceful place, where you can concentrate. There is no distraction. When you have the test that you need more consumer concentration, you can stay at home. But the day that you don't have the task that needs a lot of focus and even there is a workshop. For example, that you want to interact with your colleagues, you can't go to the office. Talk to them to the workshop and after that go and have a lunch together. So the hybrid one is definitely the best situation, in my experience.

Which job related tasks do you recommend at your home office and which one in the office?

Uuuh, all in my job?

Yes

Ohh, the task that I need to do to have more focus. For example, I am analyzing the data so I need to focus on that or if I want to learn something new that is related to my job or to the data analysis and something like this. I think there a lot of thinking is involved. That could be done at home, but the workshops the activities like for example you are just one, you just want to write some emails you know. Uh. It's okay, you can go to the office and see your colleagues and also you do your tasks. You can communicate with them. One thing, because before coming here to Company KDI I was also working remotely, so I worked around eight years in Iran in a working from home setting. Can you imagine that? So yeah. It's somehow, you know, it's difficult to communicate with your colleagues sometimes. For example, you are doing a task and you need more support from your colleague or from your manager. If you are in the same office. You can see, okay when the manager is free. Even you can see the manager's mood. Is he in a good mood? Is he in a stress? Is he busy with some task or not and decide to go and talk to him. But when you are at home, I was always stressed. I want to call my manager. Is it a good time? Maybe he's in a meeting. I don't know perhaps it's a very important meeting and I am kind of disturbance for him at the moment if I will call at that moment. Do you know what I mean?

Yes, absolutely.

So it's always a challenge. So when you need communication, when you need to talk to colleagues when you need to get their support. You need support from your manager and your colleagues and uh, this results in employee engagement. You need employee engagement because, for example, imagine your colleague is sitting next to you and you have you to face an issue. You can ask him easily. Okay, can you help me with this task? I don't know how to do that. I don't know how to solve this problem and he would probably help you and it just takes one minute, but, when, uh, taking your phone and calling the person it's more difficult. As you don't know in what situation he is at that moment, it would be somehow stressful for both sides, I think. Based on my experience. So yeah, the task you need communication, you need engagement. It's better to have those at the office than in a digital working from home setting. The task that you need to concentration, for

example, data analysis or reading some information in order to understand it and studying some material. It is better to stay at home for those kind of job-related tasks.

So what you're actually saying is team related work activities are better done at the office as that will increase your and fellow team members psychological safety. Because then you are more likely to engage or ask to your manager. When you are working from home, not so much...

Yeah, exactly.

Then I would like a little bit to describe then it would like you to ask some something more about creativity. Creativity is also known as team creative problem solving. This has three stages, one of them is the problem identification stage. And this stage, you and your team members identify the problem and the discuss it what the problem exactly is. Could you describe how this goes the virtual/hybrid team setting you work in?

Uuuh, actually when there is a problem.. uuhm, I think its good to to collaborate to share the problem with the colleagues that can give you some support for that. In uhm, uuh, let me tell you, uuh, we have a board, something, some board online board that, well, we share that board together and work on that. First, we try to define the problem. Say okay, we have this problem. We have this issue and try understand that. Uh, how can we help each other to solve the problem you know. So we are always go for a brainstorming and you know there are some methods in design thinking. I was at a workshop once for my job. First, we were covering this issue and brain storming to sharing all the ideas that everyone can bring on the table, but in virtual setting we do it electronically, uuh electronic brainstorming via this board that we have. Secondly, we want to first define by converging all those ideas to define the problem. So it's important to define the problem. Uh. It's kind of identification of the problem right. Umm. So yeah, I think we just try to do collaboration with each other, help each other, because sometimes some people come with the better ideas, but some people have different experience and knowledge and they can support each other. So if you have the bigger team you have a more diverse team with people with different backgrounds. Uh, you can have a better situation for identifying the problem and its roots.

Is there anything that could be improved in this stage in a virtual/hybrid team work setting you are working in now. For example, what could be done better for your team in order to identify the problem quicker better?

Yeah. For you know, I always see that when we have a, uh, a problem that we want to discuss it if the problem is a substantial problem or a main problem. If it's a main problem then it's a big problem. In this case, the team prefers to go to the office. Yeah, sometimes, some people, like me, for example, are not able to go to office, but they try sit around the table and work together. In person not doing that online, I think it's good. However, I don't have that experience to be honest, because I'm working fully remote, but I think it's important to, uhm, have the meeting in person and in the office. And also I mentioned the diversity. Diversity is not just knowledge and experience that is also important. Even something that comes to my mind is, for example, if you have people from different countries, from different origins in the team could be good because they have different views to

solve the issue. You know they have a look at the issue differently from the other person. So if it is more diverse in terms of the origin of the people's, the background experience, their education. A different level at the company, for example, the position, the role that they have, it could be very useful for problem identification because they look at the problem from different angles.

One thing that you just said I think is very important and I will pick that one out because you said if there is like a very big problem, so not a small substantial problem. Then people in the company that your work will discuss it face-to-face in an in office setting. I assume that they won't exclude you or some other people from the team that can't tune-in physically, but they can tune-in digitally. How does this affects the team's creativity or productivity?

When I'm not in the office and they are sitting together?

Yes, exactly. Yeah.

Uh, yes it can, because. Uh, unconsciously, they consider the people who are there as more important or more active. When they discuss because. Uh, yeah, they are talking to each other face to face and maybe even they are writing something on the paper and show each other. Okay, look at this. We can do this. We can do this, but I am online I cannot see that. Even I cannot see the board that they have. For example, when they are just picturing the problem on the White Board. So yeah, I think it can affect me and the others that are working from home negatively. You know a for me it's better that either people are all sitting together in the office or everyone is working from home remotely. You know the mix of them wouldn't be a good idea. Even I feel kind of, uh, bad. Feeling that I am a kind of disturbance for them when I am working online, on the screen, for example, and I am talking to them, they are all sitting around the table, you know. Umm, so it's something that I want to mention is that it's better that all are online or all are in the room working together. But if they are working in the room. Uh, face to face in person, it would be the priority for me, if I can go there, it has the highest, umm, priority. But if we are not able to be all in the office, it's better that we all participate online. And the last priority, the last one is okay, the hybrid one, the mixture of them, I can join online and the other ones I can join, uuh, in person in the in the office. Yeah, but generally if I want to answer your question, yes, it can affect the productivity or creativity.

How?

I feel like when I am working online and they are in the office, I am some kind of a disturbance to them, this makes me a little insecure and not fully engaged into the team process and discussion. As I mentioned before I think, therefore, it is better to work all from home or all in the office. When that's unavoidable somehow, then the hybrid work setting, would be okay, but it will not be the best one.

As you said it's not always possible for a person to go to the office because it's in a country abroad or for some other reasons. Therefore, sometimes only the hybrid work setting for teams is only possible. What can be done to improve this hybrid teamwork setting team?

Uhm, actually, it's important that the manager has this understanding say, okay, umm, for example, I have a colleague that is working in the Middle-East. In this case, we will always have time difference you know. When we are working, we started here in Germany at 9.00. They already worked 3 hours or when we are in the middle of our working hours. In the Middle-East they have already finished his job on that day. So it's important that my manager has understanding of this situation and give, uh them support, and make sure that is, uh, showing their support to them to say, okay, we understand your situation and we try to be more flexible, you know, so the umm, flexibility of the manager in this case is very important. Yeah, I think if if they are more flexible it would be very nice from them.

What about in this in this sense about the digital meeting technology? Perhaps a solution could be that that would be some improvements in that regard. For example. Okay, when some are working hybrid everybody needs to turn their camera on and their audio on.

What do you think about that? Yeah, you mean, uh, the exact application like for example teams. That if the how they can affect this? This issue for example working remotely, what is what? How they can facilitate this?

The file sharing applications, well, not necessarily the procedure, the application itself, but how could you use and your team members use the application tools better so that you don't feel like as excluded in a hybrid work setting. Do you know what I mean?

I try to understand it. Uh, yeah, I don't know. You mean that? How? What is the role of this digital tools in working remotely? Right? How it can facilitate it or how it can worsen the situation that you might have, right?

Yes, exactly. How can it be facilitated? How can it's usage be improved among the team? What is happening now that is decreasing the team productivity?

Actually, to be honest, technology is evolving and changing a lot and I see that there is a lot of progress. Because the companies, the big companies that are working, like, for example Google or Microsoft are providing very good digital tools for working remotely from home. Before this pandemic that we recently had, it wasn't like this. But, now I see that there is always a solution and there is a lot of creativity for providing a good support for people who are working remotely, so even the base of the companies is remote. You know at the moment because they can provide a better situation for the people who are working at home to work more closely to each other if they have all the, uuh, the equipment, everything that they need, you know what I mean? Everything that they need in order to collaborate with each other and sharing the files with each other or sharing the ideas. If uh, they have a good situation, they have a good facilitation for them. There would be definitely an opportunity for people to be more creative, to be more productive and work better, you know. So I think it's has a very high impact on them and In this post-pandemic world and the globalization that comes with it, you know and what's already happening like I mentioned before that it's we got to figure out some solutions and listen to each other's stories. The technology is evolving and the way it can improve themselves even more and quicker is for instance that you have people, that say like, okay, this technology is great. It's maybe not a replacement, but it's like a

temporary substitute if there's no other solution possible. Yeah, but they can give their opinions, views and even, you know, facts that can help to improve this hybrid working environment and that people should be feel less excluded. You know, so also, for instance, if there if there are more cameras on and if the laptop you know or like the camera or whatever is in front of the team that is sitting in the office and Jack, Mandy, Peter and people that are working in a that's that. That's a bit better, you know, than normally that has been done.

We have already discussed the first stage of team creativity, which is problem identification. Now I would like to ask some questions about the second stage, called idea generation and these are basically that you're creating and generating ideas within your team. Could you explain how this is typically done in your team?

The idea generation is, uhmm let me think. We always try to have some workshops. When we define the issues when define the problems I told you that we follow. There is this double diamond model. Which is uh, uhm, a kind of a tool for design thinking. Discover and define the problem, and then, uh, develop and deliver the solution so we always try to first identify as you mentioned and then. Uh, try to find the design thinking to generate the ideas. First, we try to understand that what is exactly the problem that we are trying to find, the ideas that we need to have and the idea about that and giving time to each other to think about it and supporting each other in the team to provide in the process that we are being prepared for. The meeting your workshop that we will probably have at the end and in the workshop, we again get together and try to share the ideas that come to our mind, you know. But it's important in the idea generation that everyone understand the psychological safety that I mentioned to you. Everyone needs to feel good as this can increase the team cohesion and performance. Ohh, I try to share my ideas and wouldn't be the best probably, but it could be a base of the better idea, so everyone should freely share their idea and then, considering all the ideas, we will try to again converge to the team output. That could be some, uh, more important ideas that are more relevant to the issue. This is the process that we are actually doing that. There is also a.... uuhh, I don't know if the website was mirror or the other one that you could have some sticky notes on the website and white board and sharing your ideas. So we always put them for example by name. Let' say my name. This is Participant 1. This is a color for Participant 1, and you could add your sticky notes on the website in that board. Okay, I will share all my ideas. Everything comes to my mind. Second person, the other person and the day that we have the meeting, we sit together and try to discuss all the ideas. I started my idea and I will I get feedback from the colleagues I said. Ohh okay, we think that it's not good or we think it's good, but we need to think more about it or maybe it's perfect. Very creative, creative idea and we can move forward with that idea. So yeah, this is basically the way that we work.

Basically what you say in order to improve idea generation within virtual teams is like use Myro this application or any other application that will help idea generation. What about the last stage of team creativity, which is idea selection and evaluation. So, what can help your team members to evaluate and select the ideas more effectively in a hybrid environment?

Uh, I think. Can you repeat your question? There was some noise in the lobby and therefore I was distracted. My apologies.

No problem. Could you describe how idea selection and evaluation goes in the hybrid work setting?

Could you explain what you mean by this question?

Sure, in your team you select and evaluate ideas. So you select the idea that have been generated during idea generation. So what you basically do here is you have generated the ideas in stage two and then you select and evaluate those ideas. So you make like a top five ideas with your team and then you select one, how does that go in your teamwork setting and what can be done to improve it?

So actually the uh, as I told you for the ideas selection, it's important that everybody comes and here they have a, umm, we pick the ideas that we generated and we go through all of them and we go through them one by one. Then there is also the manager that plays a key role and we consider all of the shared ideas. We consider and evaluate them one by one, we share our viewpoint about those ideas and some of them are rejected by the team because they are not that good. But it's good to know that everyone does share that idea and we try to prioritize them at the end. For example, there are ten ideas and we select four of them. But also we need to prioritize them. For example, four of them that are more important than the other six. If that's the case, we discuss those four or most important ideas into more detail and how we can develop them, how we can proceed with them and to make it more practical, functional and useful for our team in order to solve the problem, you know, so this is the whole story actually how we can start problem identification, generation the ideas that I told you, it will be done always on the Myro Board and then in the meeting we share our ideas and opinions about those ideas and try to prioritize them and reject some of them and select some of them. For the next step, it is actually to use them. So taking small steps to use them.

Which stage of the three is like the most badly affected with digital tech meeting technology?

I think it's very difficult to say that which one is more affected. If you have a good plan and you set up a good procedure to do them, all of them. Uh, it can be affected negatively or you can improve them, you know, uh could be done in the best way, so it's really hard for me to say that which one is more affected badly, you know.

Which social aspects are the most important in the three stages of creativity or which ones? For instance, do social processes have different effects on either one of those specific processes of team creative problem-solving?

What do you mean social process? You mean like a cycle so like the psychological safety?

In which stage do the social factors have the biggest impact?

I would say that, umm, problem identification. Because you need more concentration. You need more to feel comfortable in this situation in order to try to identify the problems. It's the first stage and you need to be more conscious. Uh, you need to be more cautious with them. Uh, I would say that the problem identification is the most difficult one and is probably more affected by those social aspects. Because sometimes in the problem identification, you need more communication and it's actually the base of this process that you mentioned in these three steps. And if there is no good enough situation for communication and collaboration, it would be more difficult to identify the problems.

What would be the ideal way to show that to work hybrid you know so in your team? What would you say? Would be the ideal ratio forever for you to work from home.

The ideal situation you mean?

Yes.

I would say that. The ideal situation is that you have a good collaboration with your colleagues.

Sorry I mean ideal ratio in days. In days per work week.

Ohh, what do you mean? Can you explain more?

Yeah. So you have a work week. What do you think would be the ideal ratio to like, let's say? We work two days per week from home. That would be better for our team and industry and three days in the office that that's what I meant to say.

I would say that yeah, I see that sometimes some companies, they say, okay, Monday because it's the most difficult day for employees to go to work after two days off being off. So, Monday they say okay, most of us actually work remotely from home. But for me based on what I already explained, it's better that there is also a flexibility on that. I cannot say two days working at home to eat. There is working on office. It's based on, yeah, what kind of task that you are doing. If your task is something that requires a lot of focus, okay, it's necessary that you work from home during those tasks. You need to stay at home and work in your room. But if you need to communicate with other people you can maybe do some tasks that you need to do communication whole week, right? So you cannot say two days or three days. So it depends on the task for me and the team.

Could you give a clear example where the digital working from home setting has led to a successful team project?

I think the digital it's a very difficult question, but the Miro board gave us good opportunity to share our ideas. So we, for example, we had some issues, we had some problems and we wanted to do idea generation, and we share the idea on the Miro board. Uh, it's very good to picture and shape the process and share the background information that you have or share the ideas together. I think the Miro board is the best digital tool that we have used as a post-pandemic consequence and I really like it. I like it because it's a kind of, umm, it's not just a tool because it is designed very good. It's user friendly and it's easy to share with other people and, yeah, it's colorful. It's very nice visually

and it that helps the team to generate ideas more quickly and have a good idea to select the most proper ones.

And therefore the thinking processes, which is creativity followed up by the doing, which is innovative output was also good?

Yes, exactly.

Yes, okay, can you give an example perhaps where it didn't go so well in a virtual work setting? Could you also explain like and just in general for a project, what perhaps went wrong or using the digital tools. Because of the digital setting and tools, yeah. Umm, so sometimes the Internet connection is important.

I don't remember any specific situation to be honest, but I see that these all are the risk that you would probably face when you use the digital tools.

All right, thank you. We have come to an end of this interview. I really want to thank you for your time and your answers.

Thanks. I hope that my answers have helped you. I wish you success with your thesis. Good luck with everything.

Thanks, have a nice evening!

Same to you!

Interview Transcription 3

First of all, I would really like to thank you Participant 3. Thank you for participating in this interview online. As you already you know this interview will be recorded and solely used for the purposes of this thesis and its transcription.

Yes, I know

All right, let's get started then! Could you start with briefly introduce yourself?

Sure, my name is Participant 3, and I'm working in the Netherlands since the last three months, full time, and before that I was working 20 hours per week for the last 10 months in the same organization. I work hybrid, sometimes I worked from home and sometimes I was working in the office. I am a mechanical engineer. So I have spent one year working for Company M as an engineer, I write user manuals for food processing machines. And in the past, I have also written manuals, for aircrafts, like an Airbus A350. And I've worked in that aviation domain for four years and a couple of months. And as I said am a mechanical engineer, and I also have experience in the aviation industry. I did a course in aerospace technical writing. So I write user manuals for machines in the Netherlands right now before I used to write manuals for aircrafts. So that is my technical experience.

Okay, sounds really great and interesting. I've worked in the aviation industry myself as well, as PR manager and office manager. It's an interesting industry. How much of your job consist of team-related tasks?

Could you please repeat that?

How much of your work consists of teamwork related tasks?

I think around 40% of my work relates to teamwork, because I am working with a colleague of mine to execute multiple manuals. So we have to work together to discuss on different aspects, because we have to divide the work, and sometimes we have to make come to common agreements that some parts of the manuals have to be covered by someone else. And there are also some common understandings that we need to be aware of, that what is the common way of representing certain components or certain procedures that we have to write. So we do that via teamwork. And also, there are some team goals that we need to achieve. So we have to collaborate on that. So right now, I also had you I am assuming you also know about the Gallup reports that usually are published. And one of the Gallup reports findings was initiated in the company. So and I have one of the responsibilities of initiating a learning management for new joiners in my department. So if in case a new employee joins and does the same work as I do, so I have to arrange the learning material. I'm doing that because I was a new member a year ago. So now, I will be collecting information from all the teammates and prepare a learning, learning management system, along with two of my teammates. So they can give me information, we will collaborate together and get the learning material available for the new joiners. That was the teamwork part and also I sometimes I'm also involved in some fun events, fun activities with other teammates. So as part of the like social aspect of working with a team, you know, and we always have a meeting every week to check about each

other, and we ask what each other we ask each other what kind of manual they are working on how their day is going, how their week is going. So we check up on that as well. And we also check up on if they are working on new technology or new project that they're working on. So everyone is encouraged to talk about what they're doing. So that way everyone is connected and they know what is happening in the team. And they get to learn new things as well.

You mentioned a bit ago that you are working hybrid.

Yes, indeed.

So what is it that you really like about working hybrid?

I like the fact that working hybrid gives you work life balance. So I'm not saying that working completely in office does not give you work life balance. But if you have to look at your personal work, for example, I'm new to the Netherlands. And if I have to get some things done, for example, I have to there are some visa requirements for which I need to take multiple appointments. So if I was working from office, then I can't be then it is not possible for me to attend appointments, I will have to take a leave or something. But because this hybrid option is available, I can log in a bit early in the morning. And it's also flexible apart from being hybrid, it's also flexible. So I log in a little bit early and then take a little break and then go and get my work done and come back and I'm working online, and like hybrid allows you to be at home and in case there are strikes for trains. So all of these issues can be resolved even when you because we are facing a new kind of environment in the world right now, like having this COVID restrictions placed upon us. So that really made it difficult for people to work in offices. So we had to think of ways where we could not infect ourselves with the virus. So we have to give more attention on not spreading any like viruses to our colleagues. So this is a good option. It gives you the freedom in terms of like some situations where you are unable to go to office, but you can still do your job sitting from home.

You just mentioned the office setting. But with working hybrid you also work from home. What is missing when you're sitting in your home office?

Oh, you.... Yeah, that is a really good question. Because when I am working from home, I always feel like I'm missing out on some social interaction with my colleagues. Because I'm living alone right now. I don't live with anyone. So I cannot have a conversation with anybody when I'm working from home. There are some things that are easy when you ask someone face to face. But in case you have to work online, that means you have to set up an appointment every time you have to ask a doubt of any kind. Or if you want to meet someone, then it's not possible for you to do it from home. So there are some restrictions. I would say that not everyone will be able to sit in front of a monitor for the continuous eight hours. So but when you're working from home, if in case you want to finish your shift early, then you have to sit in front of the computer, and if I feel like if you're working from home, and if you're not in front of the computer, then you're not working. So I get little anxiety. So I cannot take my eyes off of the computer. So I have that anxiety. So that is one thing which I find not good about working from home, and when you're working in the office, you usually sit in front of the computer. And then if you have any question, maybe you can go walk up to your colleagues desk and you can ask your colleague the question and he can look at the computer

and explain you something. So it's like that. So if you want to talk about a machine or something, yeah, I can go talk to my colleague physically. But when I'm here in the office, I will always have to see whether my colleague is available on teams or not. So that is kind of a bummer, and you will never know how many meetings a person has, like, because he would have scheduled the whole day. So that makes it a little difficult, like when you're working from home, and you don't get the chance to socialize when you're working from home, because you cannot always call someone and ask how they are, especially in office. So you can ask for a brief while, but you can still. Yeah, you will, you will lose that physical connection and social connection that you could have with a physical setup.

And is there like anything your manager or organization can do to improve your working from home experience or to like, increase your psychological safety? Because you said, I'm getting a little bit anxious as I'm working when I'm working from home.

Yeah, I think my organization, my company does have one "Strong Together" program, in which they address issues like mental health, and anxiety, if any colleague is facing any difficulty, they have this eight hour courses that are mandatory, and we have to do them. So I actually haven't scheduled that event yet. But as part of the company's policy, they actually take an initiative for mental health and our mental well being. So I'm actually going to schedule a meeting in the couple of in a couple of months, like in a couple of weeks, actually, to actually do that "Strong Together" course, there's a mental well being course in in terms of like how to address psychological anxiety issues in terms of like work.

Okay, and what about the manager? Is there something he or she can do to improve your and the team's situation?

Actually, my manager does take up initiatives in terms of my mental well being. She's always been I've noticed that I usually talk to my manager every week, just general conversation as well as work conversation. So whenever she interacts with me, she always asked me about my mental well being. So she takes up initiative and if she's already explained me if I have any doubts, questions, or if you need any help, you can always talk to everyone, anyone in the team. And she's also made it clear for the other team members also, in the in every week, like every week, we have a meeting on Tuesday to talk about our how our week is going, how our life is going. So in that meeting, she makes it easy for us to feel safer and she tells everyone to help each other and create a safe environment and very nice environment. So that is something which she does. And I think the she has a one on one session every six weeks with every colleague of mine. And in that as well, she always makes an effort and takes up initiative to talk about how we are doing and what kind of support we need.

What kind of style would you say your manager has in a hybrid work setting?

She has a coaching style. And she she's currently coaching me, and she does not micromanage. That is clear and I would want her to be a little more pace. I would want her to have a pace setting leadership. Sometimes, I feel when I'm working from home, it would be difficult for me to like, stay focused on certain assignments. So sometimes I might because if you're in the office, you can ask

certain questions to your colleagues, and maybe you can make things quicker. But when you're working from home, sometimes it may it's a little difficult to ask someone some question because you always have to schedule a meeting for that, and if all the appointments for every colleague of yours are full, then it is a little difficult. So if I would say that, in in case of in my personal situation, I would want her to have a pace-setting leadership style. For now, she has a coaching leadership style, and in different situations, she does change her leadership style.

Could you give an example how she has changed her leadership style?

Could you could you remind me of the different leadership styles?

For instance, you have the transformative leadership style, based upon the shift in the organization. So like during the COVID-19 era, you know, it was that from leaders had a transformational leadership of style, based upon the transition to the virtual work setting. So that is basically that you adapt to the work setting itself and what kind of work setting. Then you have the leadership exchange membership theory is that like there's a good or there are good interactions between the leader, or manager, and the employee. And then you have a situational leadership style, and that depends on what kind of situation the team is in. So these are some other leadership styles besides the ones that you already mentioned.

So these are the leadership styles. Yeah, and when I said she has changed her, she's very adaptive, and she changes her leadership style. Recently, my organization had some we are undergoing change. There was a initiative called first focus where we are trying to improve the company's operational performance. So my company had done a lot of acquisitions of different companies. When they did these acquisitions, the company's goals that we initially had have to be changed, because the goals cannot be the same, because they have added a new line of business into the organization. And whatever existing line of business had the same goal, but now the goals and the operations have to be realigned. So what the organization is going undergoing is like, some employees had to be let goes. And then some new employees were coming in from a different company acquisition, and also new employees have to be hired and some departments are being changed. So based on the company's goal, the first focus is like putting us in different departments, some old things are no longer valid. So she is like now in a she changed her leadership from coaching to transformative, because she is now adapting to the new situation. And she's doing a pretty good job. Like she adapted to what was needed for the new department. So now we are we are still doing the same job. But there were some changes in some because our organization is spread across Europe, we have some colleagues working in Iceland, some in Lithuania. And so we had some different machines being manufactured in in this particular location and work for that machines was done by some colleagues and that is being shifted to another location. So the change that is happening is like rapid and she is able to grasp all of that and manage the change management as well.

What about your team members? Is there something they can do to improve the hybrid work setting, for instance the psychological safety?

I think calling each other more often and asking each other how they are doing. That would also be really helpful. And I think in one of the sessions, this was also reported in the Gallup meeting. When I mentioned you about the Gallup meeting, there was one aspect of which Gallup had already highlighted about this fact, especially knowing each other's wellbeing is the team making you feel secure and like mentally like you feel you are safe. So like maybe asking the other colleague, how they are doing what they are doing and do they need any help that is really helpful. And I have seen that majority of my colleagues when I'm in office, they always let me know. And I'm also undergoing a transition right now. I'm actually moving into a new place. And all of my colleagues have actually, like, told me that if you need any help, and even when you're working from home, you can talk to me, you can ask me any question, and they have been really helpful.

Glad to hear that you have very supportive and social colleagues. So there's a social side, and a physical side of improving creativity and productivity within teams. Is there something that your organization can do to perhaps help improve the physical resources that you need in order to be creative and productive?

In the work from home setup?

Yeah.

I think maybe the office desk setup, I'm actually using my own table and chair. Maybe I can order work from home furniture from the office. Usually they can, but currently I'm staying in a temporary accommodation because of which I'm not ordering the office furniture, because this is like, it's already a furnished place, and I'm not allowed to remove any of the furnished stuff. And I feel like if I had this office furniture setup, because the office is stable, are ergonomically designed, and you can actually increase the height, and you can stand so they are adjustable furniture, the office table, and the chairs that are provided by office, they are very ergonomically designed. And it is part of the organization's, like "Strong Together", the health program where the company talks about the wellbeing of the total wellbeing of the employee. So I think I have to order, the company already has it in place. So that would actually help my work from home setup. Yeah, so the ergonomically design is very important. So, and if I have a better table, or chair, or desk, or lighting, for instance, I can can be more creative, produce more work and ideas and thus perform better.

Okay, interesting. Which job related task do you recommend to do at your office and which one in your home office?

I think, as, as you mentioned, what would make my work from home option better I just realized that because I use I write manuals, I sometimes have to take printouts of my work that I do. But when I'm working from home, I don't get the opportunity to take a print. And I know that it is very good for the environment not to take a printout. But I only have one monitor, which it's a big monitor, but still, I think I need a much bigger monitor because I open a lot of screens, I have to use multiple tools, and if I have to arrange all of those things, it is a little difficult for me to like, open multiple files and do multitasking. And if I had a printer at home, then I think it would be good for me. But I don't know how good is it is in terms of sustainability.

Do you need this extra monitor you talked about mainly need for the individual activities or for the team activities as well?

I think for both, for team activities as well, in case you are working on a project where you have to also collaborate with another teammate. If in case you have to open multiple screens at the same time, you have to look at another screen, because you are presenting the other screen. So it becomes a little tricky if you don't have two screens. So I realized that even if you have a work from home laptop, you because you have to use the laptop's keyboard, then you have to actually, uuuh, you're, you're not ergonomically placed very well. So that is one thing I felt was a big uuuh thing uuh that could have changed. I think work from home needs a little change in,in terms of ergonomics, because when you are set up in office, the keyboard is you can connect your laptop to a different keyboard. And there's a there's a uuh plugin device where you just connect the laptop and your keyboard and your monitor is automatically plugged in and you can close the laptop and just look at the monitors on the desk and use the keyboard and the mouse. But when you're working from home, even though you have a mouse, but your keyboard is not ergonomically designed. So usually, if you see there are some new keyboards in the market, which are like, uuh you can split the keyboard in two, and then you can spread your shoulders really well. And your table should also be adjustable. So these things, because I don't have it here, but I have to request these things in the office. And I have to mention them this, I haven't asked, I need to make a request.

What about for instance, some companies allow to let their employees decorate their open plan office or space. In the your home-office you can do this as well and more freely. How does that influence your creativity?

Yes, definitely. I totally agree on that particular point. Because I have not been able to decorate my place right now, because of the, because this is like a already furnished place. And this table, I don't have enough space in this place. I'm living in a very small place. So that's why I decided to move to a much bigger place where I can set up a much nicer work from home setup. I totally agree that it affects the productivity. When your desk is well organized, and if you have things really placed and I think that when you're working from home, it's good to have zero clutter, there is no when there is no clutter and everything is well organized on your table. It improves your mood and it also improves your like creativity. I definitely have felt that.

There are three stages in team creativity, which is also known as team creative problem solving. But so the first stage is problem in identification, and in this stage, you and your team members identify the problems and discuss it. Could you describe how that one goes in your team?

Yeah, now that you mentioned, I'm actually working on a file where I was trying to get influence from other teammates. So my different, I have multiple teammates who are working on different machine departments. So they are in charge of different machine departments. And whenever they write manuals, they have a different uuh style of approaching certain problems. And I was, I came across a situation where I had to split two manuals and I had to reference another content in that manual to another content, another manual. So when I was doing that, I was using a technique which I would generally uuuh like, I got influenced from another manual, which was created by one

of my teammates. And he, his machine was from a different department. And the machine that I was working on was from a different department. And the approach to solve that problem was quite different from both the writers, because this is a creative industry, you, I, we can create illustrations in different ways because everyone has their own imagination. And even if you have certain rules, you can have multiple different outputs and none of them are wrong. Like every output will have the same, is actually correct. Scientifically, it is still correct, and even from readability perspective, it is correct. So I was having a different understanding. The other teammate was having a different understanding, and now, we thought maybe, we should have some coherence in this particular situation. So we have something called a informal and writer's meeting. So it is a meeting where we discuss on topics where there are some discrepancies in terms of approach to make it more coherent. And we have a page called confluence, where we actually put, put all the new findings and new situations that we agree upon. So in this informal and writer meeting, which happens every two weeks, and we discuss the, like whatever discrepancies we find or new questions or new situations that we come across, if we have any doubt, and we discuss that point in the meeting to come up, come to a conclusion. And that conclusion is recorded in the confluence page. So that next time, if anyone comes across that problem, they go to the confluence page, and it's like a confluence wiki confluence page. So we look at it for every topic, we have a uuh uh a topic discussion that is mentioned there. And we keep updating it with some keywords that we use.

How could this problem identification stage be improved in the hybrid work setting?

Um, this is a good question. Good one. Uhm, I think in a hybrid setup, we can always there is one advantage when we are working hybrid, that everyone gets to share their screen, and they can simultaneously when somebody is sharing the screen. And if you have your additional monitor on the side, when somebody is explaining something, you can also open the other file and check if you if you are having the same problem in the tool, or you can see that you were able to solve it in a different way or not. So this hybrid setup gives you that advantage that you can simultaneously check. But when you are in office setup, and somebody is giving a presentation, you can actually not open a laptop and sit in front of them, you know, like you, you can take notes. But you cannot actually if somebody is explaining about an application, you cannot open the application yourself. And because of the person, you have to also concentrate on what the person is saying and what he's trying to show on the screen. So but when you are actually having a hybrid meeting, what happens is you have to actually look at the screen. And simultaneously, you can open the other screen and it's not distracting to the prson who's explaining on the other end.

After this stage, you have a second, after this stage, you come to the second stage, which is idea generation, and this basically means that you're creating and generates ideas that can solve the problem discussed in the first stage. How does this go in, in your team?

Uhm, uuh, idea generation, right?

Yes.

So whenever we come across a problem, and then if we have to solve it in the informal and writing's meeting like for example, we have this meeting every week. So every two weeks, we have this

meeting in this meeting, we everyone presents their solutions. So we discuss and everyone gives out their opinion on how this can be solved and we exchange information back and forth that if we do this this way, we may come across this kind of problem. If we do this, this way, we may come across this problem, and then we all come to a general consensus that if we approach this in this step, and this step and this step, and then we can get this proper solution for it. So that is some thing that we do, and we generate an idea. So we talk to each other, we take each other input, and we find flaws in the solutions that are provided and then come up with the right solution.

Okay, and how can this be improved in the hybrid work setting, this this stage? Uuuh, uuuh...

So how can idea generation via electronic brainstorming in the hybrid work setting be improved within your team?

I think, now that you mentioned, in the university, when I was studying, there was something called as teams polls. So they had this polls, where everyone simultaneously were given 30 seconds, and then everybody had to type their opinion, and then there was a bar graph, which said what kind of, there is a brainstorming page where all the points are shown, and I think that is not being used in in that idea generation stage, and I think it would be really helpful if in my team that was used. Now that you have mentioned, like a page where a problem when it is identified, and what solutions have to be, like everyone has, and if we all put it there, then we can actually formulate a mental picture of what it would look like. Because as you said, when somebody is actually, when we are having an online hybrid meeting, so when one person is talking, the other person has to mute himself, or you have to be silent. But if in case we have this kind of tool where we can actually create a poll, or something, they can actually generate responses. And with that responses, an idea can be generated.

Once you've generated those ideas, as we just mentioned, you have to select and evaluate the idea that you generated to solve the problem. This is the last and third stage of team creative problem solving. What can help your team members to evaluate and select the ideas more effectively in a hybrid work environment?

I think we have to do a trial of every solution and see up to what level it could be effective. We can maybe think of a simulation, think of if we have this, then maybe we may get this kind of problem. Again, we can, uuuh we can again, I think, uuuh run a poll at this, this is what the kind of, if we go with this solution, these are the problems associated with it. So maybe we can again brainstorm with that same technique. And we can know and then we can decide which option to go for which solution would be much better. Like there are three or three solutions we came up with. So if all, all the three solutions will definitely have some kind of drawbacks. So if we have, if we can also brainstorm on the drawbacks, then we can identify the which one, which solution to go for, for that particular situation. If you have a time crunch, maybe we can look for a solution that helps us in that matter. When we don't have a time crunch, when we need a much robust solution, then we can think of which solution has the most robustness associated to it. So I think this would be a good

option, like running a poll on the drawbacks of the solutions, and then choosing it to our situation on the parameters that are needed for our problem.

Is there like an application that your company, that your team uses for that, or not yet? Not yet.

Which stage do you think in general is the most affected with digital meeting technology that is used in the hybrid work setting, is it the problem identification, idea generation, or idea selection and evolution?

Could you repeat or rephrase that question?

Sure no problem, which stage is affected the most with digital meeting technology in a hybrid work setting?

I think all three, I would say all three, uuh because sometimes you get one thing right, and some you get, you don't get the second and third thing correct. And I have mentioned, I remember in my weekly meetings, we don't use this thing, we use this poll kind of generation tool. But I saw that in the, we have something called as a town hall meeting, where people from different locations across the globe, they come together, and we discuss about innovation. We have an innovation town hall in the organization, and there we use these kinds of polls, even for problem identification, problem solution, and execution as well. But at an individual team level, this is not being used. Not because it's not available to us. But there is also one more factor that I think I have seen that my teammates are quite old, and they are using tools which are like, they have been using the tool for a long time. So Microsoft Teams, Skype, they, these are all recent advancement. But in Microsoft Teams, I don't think you have those poll options or anything, when you are having a meeting. So this for this idea generation, the regular video calling tools, they don't have so many options. But I think it would be nice that the team regularly uses another additional tool on a browser or something. Or if it's integrated in the teams itself, it's a good, good option that for idea generation, there is an option for idea generation, there is an option for problem identification. And we put in the content there and then all the problems are highlighted, then we can select which problem is the most important, prioritize on it, and then which solution is the best solution and why, then we can create a mental image on the screen itself, if that option was there.

So you would recommend like for each stage, one specific application per stage. Or if there is one application with all these three stages, that can be done on that tool, it could be really helpful?

Not yet.

Okay. Well, who knows, you know, technology evolves.

So but now that you have mentioned these three stages, I think that polls option if it's integrated, and if we can create some kind of a tool and integrate it in the meeting tool itself, that would be really nice, an option.

Okay, why?

I think one more thing is, whenever you are having a meeting in case of discussing a problem, and then going through this stage, maybe when we are having this hybrid setup, every week, we can actually, we all we already have this driver server lab, I thought maybe in this 10 minutes should be allocated for problem identification, and problem solution and then selecting which problem solution that we have to execute. So I think that would be nice, like we're having using any tool like that every week. So I think that would improve the team's problem solving. And it could also come up with we could also come up with multiple solutions with that.

You mentioned that the older generation is not as good with those digital tools and applications in those three stages. So the younger generation, under 30, have less practical experience and tend to have less psychological safety and need some more onsite explanation. What can the organization or manager do to tackle this problem in the hybrid work setting?

I think because my colleagues are like, all of them, like, only two of my colleagues who are doing same work as me are in in their 30s. And some one lady is in her 30 and late 30s. And the other quy is in his early 40s. So they are, they both have like extensive experience. And the rest of my colleagues are all above 60 years old. So they have been using the traditional tools, Microsoft Teams and everything. And they have traditional approaches to problem solving and everything. But if you know, we come from a smartphone age, our generation, I have some very Symbian phone to Android smartphone. But if you look at Gen Z, and the latest generations who are coming into offices, they use a lot of tools and a lot of online solution tools. So they have less attention span. And for them, they are all dependent on applications and tools. So if managers can think of, like, they have to update themselves with the available tools, and how they can make the new teams, like new guys joining the team, like youngsters, also like, they can take their inputs on what tools they want to use, they want, they are familiar with, and maybe organize training sessions, like fun training sessions for using this smart tools, you know, like, once a week, maybe this is a new tool that has been brought up, and with this new tool, you can work this way. So if we can make a fun training session for the new tools for all the old teammates, so they would find it entertaining, I guess, and then they can also adapt to it.

How do social processes influence creativity, when teams are working hybrid?

When you say social processes, could you explain me more about it?

Yeah, sure, for instance, we had one psychological safety, but we all had to kind of describe that but let's say trust, for instance, some of the members are face to face, and some are virtual, in a virtual environment. So how do these social processes influence creativity when teams are hybrid? So when some members are face to face, and some are virtual, do you understand what I mean?

I agree with you that in when somebody is not sharing the screen, gives the impression that the other person is not prepared or it is not up to the competition or he's not prepared for the challenge. So he or she so it does make give that wrong impression. I agree.

And how would you say that would influence a specific stage? Like, could you give an example?

What I mean with that is that that employee probably has not prepared his ideas or didn't read the report or was absent minded in the previous meeting when discussing and solving the problem. This can affect the team's productivity, you know.

Okay, and how do social processes like influence creativity when teams use multi modal communications? So when some team members use only audio while other use video and audio ?

Yeah, I think when when you say when they're using different tools, like somebody is only connected audio and somebody is actually presenting their screen and they're involving themselves by showing their face on the camera as well as also presenting the screen, and some are just joining and they're listening and looking at it and some are just audio is on and they're not able to see the screen. This does have a impact on the process. Like they it does have an impact on problem solving or solution generation. Because if everyone is having look is able to see the same input, then it makes it easy for them to interact really well with what is happening and give proper solutions. But when one is connected through audio and one is connected, just able to see the screen and not able to say anything and then is chatting it there is a lag in the idea generation or problem solving.

What team work setting would you prefer to work in your job industry?

I think hybrid would be the best option. If I have to see the global situation right now, having a hybrid work session makes more sense to me. Because I know that you can, you can expect a pandemic to hit unexpectedly, you know, it's not so easy nowadays. So you have to be prepared for any situation. And also that people have gotten used to working from home as well. So some IT industry employees, they were completely work from home. So they have gotten used to it. But I work in an environment where I have to be in the office, look at machines, I have to physically inspect certain things, then certain stages of my work involves working on the computer. And when I already have gathered all the information, I just have to work on it and execute some things. So hybrid makes more sense. When, when you have, when you have to do physical check as well as like, be in the office as well as you have to do some individual work. So this hybrid works really well. But when you are an office, when you're an employee who works solely in a warehouse or solely you have to work in a production environment, then I don't think for them, it is working from home is an option for them. So it's difficult. It's very difficult for asking someone who works in the production environment to when I'm when I say production, I'm talking about production plant where they manufacture machines. So it's not possible for them. But for people who have a more of a desk job, but also a little bit of interaction with the with the tools or machines, then for them, hybrid is a very good option.

What would be the ideal week ratio for the hybrid work?

I would say it's good to have at least two days work from home and three days in office. Okay, and that is what my company is still currently following. And it is very convenient if you ask me, because when you are going to the office, at least three days, then you get to meet all of your teammates. And if you work from home more often, then you are having less social having less social interaction. And that actually can hamper your productivity and your creativity. Because maybe there are certain kinds of jobs where you don't have to derive input from others for creative ideas. But if you work as an individual contributor, and you you're always generating ideas on your own, then for that kind of person whose job is more individualistic in nature, and he has less team interaction for that person, maybe he can work more days work from home and then he can have two days in office. But if you have a situation where you have to work with a team, and you have to generate input or you have to generate some solutions by working in a team, then having three days work from office and two days work from home is a good option.

How has the support from your team member changed in this hybrid work setting?

I think when I'm working more from home, I get less chance of talking to all of my colleagues. So this is a little difficult for me. Recently, during the strikes for the trains, I was working more from working from home. So it was becoming a little difficult in if in case I had to ask doubts or if I had to do have some clarification with some of my colleagues. And in some cases, when you're working from home, there are chances that you have colleagues who are working and they're having continuous back to back appointments which are already scheduled and you don't have the chance of having a call with them or even if you have to clarify a doubt, it's it becomes a little difficult. But when you are working from office, maybe you can ask them a doubt there when they are done with one call you tell them and you get a chance of talking to them without having an appointment or anything this that it that makes it a little easy.

Could you give an example where the hybrid work setting led to a successful team project?

In the past, like last year, I was working on a different assignment. And in that assignment, I had to like interact with HMI screens, like human machine interface screens, and I had to represent that in a manual. And for that, because for that, it was really helpful that I had multiple online meetings with my colleagues to discuss that screens, because you cannot physically explain them, you always have to present the screen and explain that when I'm clicking on this option, this option is having this kind of output, and I need to write that in the manual in some way. So that actually was very helpful when we when we did the whole when we did the whole brainstorming session online, when we did all the meetings for that particular machine online.

Could describe were the hybrid work setting actually badly influenced a team project?

Yeah, I actually had this issue with my network, because when you're working from home, your office computer, if you're working continuously from home for a week, say, you're not able to restart

your computer. So whenever you have network issues, so you will always have to ask someone who is in the office to restart your computer or anything, and in one instance, what happened was I was working from home, and uuh I think almost it was like vacation times. And it was during December, everyone was had already planned vacations and some of them were working from home. So what happened was nobody was in the office. I had to restart my computer. And because my computer had some network issue, I was not able to connect to my office desktop. And I was not able to restart my computer. So I had to somehow look into my phone and find out another team, like another member from another department. And he somehow was working from home, sorry, working from office, and then he restarted my computer. But if he was not in the office, then it would have been really difficult me to continue. So this was one instance where working from home had like a negative a situation, it was a not a good situation. And whenever you have to connect your remote desk connection, that also sometimes has issues because you have to restart your laptop here and there as well. So every time you have to keep resetting and if there is a issue with your WiFi, then working from home is not such a good option. Because it may look like you are unprofessional when your Wi Fi connection is bad. And then it seems like you're either unprofessional or you don't have things well organized before like a digital meeting start or presentation. And while that's actuallynot your fault, you prepared very well, even though if there's a lack in a network or it just disappears, you know, in a way, and then it goes back online after a minute or so or even half a minute, it would still look unprofessional and it might fail the ideas that you have represented to your team or to your manager or even to a client, which is detrimental.

We have almost finished with this interview and but I would like to ask you one final question. And that is, how do you expect your teamwork environment to develop or evolve within the next decade?

I think we will have more and more smart tools to handle the situation. And I feel like in the future, we will have tablets that we will be walking around with, maybe even in the work office environment, where we will, we will have a constant connection. You know, I see that as a future, like maybe holding on to a tablet or even augmented reality holograms on our hand, where we are able to, like, interact with our teammates and maybe even project ourselves on somebody else's hand and attend meetings. I feel that is definitely going to happen in the future.

Within a decade?

Yes, have you heard of HoloLens?

HoloLens, that does ring a bell. I mean at least the name sounds familiar to me.

Broadening by Microsoft, they have this holographic projections that are visible, and you can interact with them. Like it was in a nascent stage. I had known about this HoloLens a long time ago, like, it's in development since last 10-15 years, I guess, but Microsoft, for some reason, hasn't launched it completely, and whatever technology they had was good enough to be launched, but for some reason, they haven't launched it yet. But I am feeling, with the new AI revolution that is happening right now, companies will have to innovate, and they already have projects lined up. XR is an extended reality, where they combine AR and VR, but one thing I understood was, not everyone

would like to wear on a headset and interact with the environment inside it, but I know of some researchers who have actually developed gloves where you can feel haptic feedback, and also there are some holograms that are being projected on the screen, and maybe with the haptic feedback gloves that you will be able to wear, and with the holograms that are projected, you can maybe have some meetings which are much more immersive in nature, and they're far more interesting. That is something which is a possibility in the coming future, in the next 10 years itself.

Just one question for clarification about the Wi-Fi and the tablets. You said something about instant Wi-Fi. How can they realize that goal?

I was talking about, if you're working in an office environment, and you have a production environment as well, and when you have to go to a production environment to inspect something, or do some quality inspection, maybe in the future, you will have tablets where you take, we already have tablets, but everyone will have tablets that they carry on, and they are instantly able to take projections of the machines or something. For now, we take just photographs, but we will not be able to do some analysis on them with just photographs. I feel in the future, there will be tablets where they can scan 3D images, and you can see those images easily being converted to 2D images, and 2D images converted to 3D, and you can project them, and you can carry them wherever you want. Since you're working hybrid, somebody can take a scan, some object, and they can transmit it on the screen on a laptop or a tablet, and then you can see it on your screen sitting from home. Yeah, exactly.

Okay, that's super interesting.

I think you should interview someone from ASML, because ASML had actually made a promotional video during the COVID crisis that they are using augmented reality. What they do is like the customer service engineers, they actually wear VR headsets, and they ask people who are working in the clean room to physically show them what is happening. So they wear the VR headset, and I think, I don't know how it exactly works, but they can actually tell how the technician has to repair inside a clean room by looking at the VR headset.

That's a great recommendation. Thanks a lot.

You are welcome.

Well, we have come to an end of this interview. I sincerely want to thank you for your time, answers and recommendations. This is much appreciated.

No problem. I wish you a lot of luck and success with your thesis.

Thanks, have a great week!

You too!

Interview Transcription 4

Thank you for doing this interview with me Participant 4. I really appreciate that you are willing to take part in this and let me borrow some of your time. All right, then let's get started.

Could you start with simply briefly introducing yourself?

Okay, well. Thanks Simon. So my name is Participant 4, and I currently work for Company SF in Ireland, where I am a solution engineer, which basically means, uh, I have a pre-sales role where I connect with the customer capture requirements and then bring them the right solution package.

Could you describe your current job role and the responsibility it entails?

I have been working, uh, for Company SF since September 1st of September, 2022. Um, and as I mentioned before, uh, solution engineering where, um, basically for every customer you work together in a team, right? So you have the sales lead who are like a sales accountant kind of, uh, person who takes care of the customer, does all the sales, does the first connection with the customer, and then once they're really interested, the sale, the solution engineer comes in, um, they all have a conversation together about possibilities about, uh, what their needs are, what their current tech package looks like, and then, uh, it's my job to come in with the right clouds and packages and softwares and epic change apps and so on to give them a full package, uh, to fit their CRM needs. Um, and then the next step would be if they're happy with the package and they see the solution as valuable, we go on to refer them to a partner who can actually implement that solution.

How much of this work consists of teamwork related tasks?

Um, good question. Like in percentages, I would say it's something along the line of around 40%, uh, sort of 40% where you're in customer meetings together, where you are touching base with your sales lead and the other 60% is actually building demos, keeping up to date with the huge Company SF software package. Um, and taking care of the technical side of things.

What is it that you like about working hybrid?

My favourite thing about working hybrid is definitely being able to skip, um, the drive or the public transport towards work. So for me personally, that saves me two hours a day. Those two hours are, you know, very much, I'm happy to have them for other things, right. So we have that also, I do have to say that Company SF gave me, um, so financial support to build my home office. So for example, I do have a very nice screen and a very nice, um, desk and chair. So that's really comfortable. Um, I like that everything is very much online. So at some point, yes, you do miss that human connection in the office. On the other hand, um, you are very much, you're a lot more efficient because you just do what you have to do. Uh, you only go to meetings where you really need it. Um, and that way you have, you have more control over your day.

So you said sometimes I'm definitely missing the social connections between me and my co-workers when I'm working from home, is there something else missing when you're working in your home office?

The free snacks and coffee in the office. Um, those are always nice to have. Um, so the connection with your co-workers and I think just the, uh, like opportunity, if you have any questions or you need help or you need to touch base with sales, just for like a really quick thing, but it's very important to do it immediately. Then it's really nice to have that, to have your colleagues next to you. Um, also sometimes, for example, when you get feedback from your manager, it, for me, it's really important that it's face-to-face and in a personal way. So, um, in those cases, I do prefer to be in the office and have that, um, human connection.

So something that could be improved then in this hybrid work setting is that you actually want that your manager schedules more meeting in the office, uh, when giving feedback in team or individual context?

Yes, very much. Yeah.

Is there anything like the company could also do for the physical components or spaces?

Generally it's a really well thought out building. We even have a rooftop. Um, the only thing that I personally prefer, but the company does not do due to, um, yeah, like, uh, green reasons being sustainable is that we do not have a canteen, like a chef or like in-house food. So we always have to go outside and bring it or bring it from home, which is kind of annoying in my opinion, because I either have to leave the building and it's, there's not a lot of stuff around that you can just get into and go into and get some food. Um, so in that sense, the only thing I'm really missing is that it's an extra service, um, for a nice meal. So no, everything that I said, you know, or that, that, that I need to do my work. If I would ask a question, like, could you provide me with an additional screen with an additional keypad, it is already there. So if we need extra physical components or space, was your question, right?

Yeah. So, that can be, lighting a table, a, an extra screen, like you said.

Well, in that sense, I am very lucky to work where I do because we just opened up a brand new office. So all the chairs are customizable, the tables are like, once you can change and like heights, you get two screens on each desk. It's very sunny. Um, it's a very nice building. It looks very nice. Um, we have a rooftop. So honestly regarding that, I do not have any needs because they're already met because we have a high standard.

That's the in-office setting, but what about working from home?

Okay. So working from home. I didn't understand your question. Sorry.

No worries. It's totally fine.

Um, for your home office, you get a budget. Get a few hundreds, like I think it was 250, um, once, and with that 250, you buy whatever you want. Do you spend it all on one single screen? Do you

spend it all on all the table or do you keep it really cheap and buy a table, a chair and a screen with that money that's on you. Um, but that's what they, that's the only thing they provide.

This office is so ergonomically well designed, as you described, um, then, is it also better for team related activities or job related tasks or doesn't that really matter in comparison with your home office?

I do feel like the office is very much a place to, uh, co-work because there are different kinds of designs. So we just have a standard desks. You have little islands where you can work too. Um, there are a lot of meeting rooms in different sizes. We have a whole floor even that's just designed for being together with colleagues, um, chill, have some fun. So, um, a bunch of like ping pong tables and yoga rooms and stuff. So in that sense, it's really well designed to connect, uh, with your colleagues to have that opportunity to teamwork on one hand, but also just get to know each other as humans on the other hand and in that sense. Yeah, it's really good.

Do you feel that your manager, uh, correctly stemmed hybrid work in accordance with the teamwork related tasks?

Well, actually it can be improved because I have the feeling that sometimes I do too much teamwork related, uh, activities in my home office. Um, so in my home office at some point during my career there was a time when there was a lot of, um, teamwork online and then I'm talking about putting 20, 30, 40 people in one big call and trying to make it work, which just simply does not work. Uh, yeah, of course you have the breakout room stuff that you can do on different tools like a Google Meet and Zoom. Um, it's just, it isn't the same and it's very chaotic, and that sense, I really disliked teamwork in bigger teams. Um, online. So I think up to five people, it's doable, but anything beyond that is, it's not productive at all.

Do you also have the feeling that like, when this is the case that you just described that, that, uh, affects the team collaboration and productivity of the team?

Yes. Uh, it, it impacts it very negatively. Um, because you just, you can't connect with people. You don't know, you don't see their body language fully. Um, no one, not, not everyone gets a chance to speak up, uh, just because how the call is organized and how you're all in one big group.

So you have the feeling like if you can't see somehow their screens or their, let's say if you can't see their, their faces on the camera, then it would, it would affect, the creativity and productivity of the team?

Um, for example, yes, you can have a shared screen in a certain online meeting where you can just brainstorm, but not everyone participates because they can, they feel like because it's online and you're looking at screen, they can just mentally clock out and just be there physically. Um, and that sense, you don't get the most productive meetings because not everyone is participating, and yes, it's hard to work on something together when it's online.

What about if some people are like tuning in online and others are working in the office, this is also known as the hybrid work setting because a lot of people, they think, okay, on

Monday you work in the office and on Tuesday and the other three days of the week you work from home. That is the first description. The second one is okay. Let's say Participant 4, you work, uh, uh, from home on Monday and like half of the team works in the office. Is that sometimes, uh, sometimes the case in the company you work for as well?

So most of the time we do try to coordinate when our team is in the office, so we're all either there physically or all online, however, sometimes it does happen that we have to work in a hybrid way. Um, again, I feel if I personally am joining an online and my team is physically, you know, together at the office, I do feel like there's a barrier there, right? Because everyone is, um, they're talking in between themselves or like amongst themselves, they're, um, they're reading body language, they can whisper and you're not fully there. So you always feel like there's a barrier there, and if you, it's a lot less casual because the moment you speak up as an online presence, everyone turns to you and they, they listen to you. If you're lucky and they are all nice to listen to you. So then it's, it's a lot less casual and a lot more official. Um, so I feel for example, for, um, like workshops or brainstorming, it's not as productive.

So for the idea generation stage, um, it wouldn't be so effective to work in a hybrid setting?

Yes

What about the previous stage earlier than idea generation, for instance, the problem identification one, do you feel the same about that?

Um, I think for, to identify a problem, it's a lot easier. It is easier in the sense that because you have to give everyone a turn because you're working hybrid and if you're managing the team well, or managing the meeting well, you give everyone a chance to speak up. I think it's easier to identify the problem. Um, it's still not perfect. It's still better to do it in real life and have that conversation. But it is easier. I would say then the prototyping, uh, ideation part. It is easier.

What about like the last stage of team creative problem-solving, which is idea idea selection and evaluation?

Um, again, I think that is even harder, um, because if you're in a physical group altogether, you can read again, the body language, you can read what gets the most nods or gets the most, um, vocal approval in different ways, and just saying it out loud. You can follow along with that and you can kind of see what the vibe is and if there's mental space for different ideas and so on, or like different ways to go about things. Um, however, if you're the online participants, you're missing out on all these social cues. Um, and it might be very, very different, a different experience for you to get your ideas heard in that sense, I guess. On the other hand, if you look at it positively, you're not prone to, um, like social pressure, peer pressure, because you're missing all those cues. So whatever you're saying is purely you and in that sense, it can be productive.

But out of all of those three, you would say the second stage, so the idea generation will be the most badly, uh, affected, right?

Yes.

How can this stage be improved?

Well, honestly, I think it's all about, um, the kind of people that you have in your organization, and um, the, I think the most important part in hybrid work and working in the hybrid space and working together is the person who is the most likely to be in the hybrid space or working together is the person who leads the team meeting. So if, if you have someone who is very experienced and knows what they want from this meeting and knows how to go about, um, leading people towards a certain goal, I think that regardless whether or not you work hybrid or, or all online or whatever, you will have a very high quality meeting. However, most people I feel like are not as experienced or not as well. Um, equipped to, to lead an online team or like a team meeting in general, so I think that makes a huge difference.

So you would recommend then that, that either a team leader gets more educated about, uh, leading a virtual or hybrid team? And you have a feeling like, because of the post COVID consequences we're all working more hybrid nowadays,in a lot of industries, but you have the feeling that, okay, this is something that happens, but it's actually quite fresh. It's quite novel, and therefore leaders or managers haven't had sufficient training in that aspect?

I think a lot of managers would benefit from, um, having an extra training or like a few hours on training, how to properly lead an online meeting and in a physical meeting and hybrid meeting, like those three separate things, and they cover different tips and tricks to go about it, about it. Because I feel like that would help a lot.

That's more the social side of it. What about the physical side of it? Is there perhaps the, the organization or manager can something do to improve the hybrid work experience in terms of team collaboration and creativity in a team?

Yes. Um, so that's a really good question. Um, personally, we have cameras that you can put on different angles. So in different parts of the room, it will focus if you put it on that certain setting. So if you, for example, um, no, you have to do a presentation, you can just put it on different angles. So it only focuses on you instead of the whole group in the room, the meeting room, right? So those are also solutions that we have. Um, what I really like, uh, or like what an idea is I would have is like, you know, smart boards, right? I think that's really useful because it can be also hybrid. So at the same time, you can have this really physical, um, option to like draw with your fingers or make something really like physical happen. On the other hand, you can also, um, show it online so that people can actually follow along because, uh, yes, people have been using like, for example, whiteboards during meetings. Um, but that's very hard to reach through camera because the camera is often not that high quality or your internet connection is bad. So in that sense, I feel like smart board would be a nice in-between solution.

And that smart board is that something like Miro board?

Uh, so Miro board, yes. It's one of the things that we also use. Um, however, if you want to get the full value of it and a physical space, you need a very large touchscreen, right. So, uh, I don't feel like a lot of companies have it, but if they do, it adds a lot of value.

You said something important about the internet connection. You said sometimes the Wi-Fi is bad at. Is that something that is typically within the budget of the company, because that's actually the most important thing when you're working from home, otherwise you can't be productive or, um, is it not? Or have you experienced like I got a better Wi-Fi because I work here or if I asked the organization paid that or?

Okay. So I know that organizations out there that, um, cover part of your internet bill, for example. However, Company SF does not, um, they do provide very high quality internet in their office. So if you want that, you can go to the office. Um, but at work at home, at your home office, you're responsible for your internet connection and you're the one also paying for it. So it's completely your control.

How many days per week do you work in office and how many days per week do you work from home?

So personally, I work two days from the office and then three days a week from home.

Is that sufficient for you or would you recommend to do it more because of the one-onones with your manager or to creatively solve a problem with the team?

So I try to plan my meetings around when I'll be in the office and when I won't be in the office, uh, as much as possible. However, uh, it's also, um, company policy is changing for us. So we will have to be in the office four days out of five in a few months. Normally, Company SF, they will open it, uh, up to four to four or five days a week. Uh, I think eventually they even want to go back to a full on. Five days a week at the office. However, there's a lot of, um, yeah, employees just don't want to do it. They want to work from home. So there's a bit of a power struggle going on there currently. So that's always fun to watch.

We also just discussed about the Miro board that is for idea generation in teams. What about idea selection and evaluation?

I don't think I've used specific tools for that. Um, mostly just in the meeting, what do you think about things and how would you go about it? Sometimes I would do a Slack poll though. So in our Slack channel, but in people who are involved in the meeting, we have a little poll and then everyone can just click and then without, you know, being influenced by other people's ideas in the first, uh, sense or first place. But that's the only thing that we've used so far.

But you would recommend to do you think the poll is sufficient or would you recommend that an organization would have like some kind of app for that and then, uh, shows which ones are the top five ideas and which ones are going to be evaluated? I think it would be useful in a bigger meeting with more than like five people, however, I feel like if it's under five people, you shouldn't overdo it either. So from a certain amount of people in a meeting. Yes, I think it's very useful to have an app.

How does digital communication and the use of additional features influence the development of social processes in creative hybrid teams?

For instance, the conflicts such as chaos and confrontations that often arise. Does that happen in your team as well while working hybrid?

I feel like people are less confrontational in the hybrid work setting. Well, there's two kinds of people. Um, either they're more confrontational because they feel like, because it's online, they're more protected. They can say whatever they want because it's just a screen in between. On the other hand, people are also less confrontational or some of them are because you're able to take, take like a breath, like inhale, um, become relaxed again, even like after every meeting can have a big sigh of relief that you're done, that you're true with it, and then you can just reset and go to the next one. So I feel like in that sense, it really depends on what kind of person you are, um, but it's either less or confrontational than you would be in real life.

So the hybrid work setting leads to less confrontations than the in-office setting, so in real life?

Yes.

Another social aspect that I would like to address, like, is about how does the hybrid work setting affect the trust level between you and your colleagues?

I feel like there is less trust than if you would be together in real life and build them on because I, because of the screen, as I said before, you're missing a lot of social cues, you're missing a lot of context and in that sense, I feel like the trust established online is always more frail than once you establish in real life.

Do you also experience that in the virtual work setting that people show signs of decreased trust levels or psychological safety?

Because of the disconnection you feel, um, because you're online, there's definitely less, um, like the trust and safety that you would need to have an open conversation with someone. It's definitely not there.

Okay, you said something very important about, um, by the screen sharing or actually your, uh, video sharing like we do now. This can affect the trust, uh, among the team members. As some might feel kind of neglected when they are sharing their ideas online and other are physical present in the office. What should your manager do to improve this in the hybrid work setting?

Every, the manager had correct training and how to lead these meetings. Um, this manager would also ask of the attendees to turn their mic, turn on their cameras, uh, and their microphones when

they want to speak up. So in that sense, I feel. If they're trained and they want to have an energetic group, even though it's online, then everyone should turn on their cameras and everyone should, you know, be involved as much as possible.

What about the team member perspective? Do you feel like there's less support, when going into a hybrid transition?

I feel like a lot of workers, especially during COVID, but also after just got thrown into the deep. They just were expected to perform a hybrid or fully online, and um, they had to figure it out on their own. Most of us have had to do it online and had to figure it out, and in that sense, it's like, you know, how, for example, um, when you have a business, um, education, they teach you like in a meeting, you should have some certain etiquette. You should have like certain manners. You should follow, but we never had that thing for like online meetings. Meanwhile, there should be, for example, yeah. Like you said before, turn your camera, um, speak up, be an active participants. So those are all kinds of online manners that we have never learned from any school environment or any other education source, and I think a lot of people are missing out on one side, those manners, but also the technical skills of, um, performing online meetings or hybrid meetings.

Could you then typically give a good example where the hybrid work setting has led to a successful team project?

Um, I, yes. Okay. So as we've, uh, mentioned, well, as you were working, we were working where there were two solution engineers and one sales lead on a specific customer case, right? Um, and then, uh, one of us, the other solution engineer, it was working, you're working from home. So it was hybrid. I was, um, in the room with the sales lead at the other solution. She was joining us online.

So we're working hybrid ly there.Um, and then we were talking about customer needs. What would they need? Um, capturing requirements, what they wanted from the Company SF platform, what clouds they needed and which settings and which AI and so on. Um, and our sales lead was actually pretty decent at, um, like talking through it, talking all of us through the meeting, um, and it was very successful in the sense that we also closed the deal the very next day. So that was really cool. Um, but I think the most important takeaways there were, of course, the sales lead who knew how to handle it, and also we were only with three people. So it's a lot easier to handle one online person and two people in a room than bigger groups. So I think those two factors really played a role there.

On the other hand, did you also have, um, an example that led to like a unsuccessful or negative experience in your team regarding the hybrid work setting?

Yes. Um, so we do have, um, groups within the solution engineering. So there's kind of like your teams that you can rely on. Often it's based on country or on a group of countries, right. Um, so I was there with all my fellow solution engineers and with my first, with my manager, um, and we were talking about, for example, yeah, actually the psychological safety is a big part of the conversation we're having because we noticed that, um, some people are really frustrated with the way we've been about meetings and how about everyone just like our manager just assumed everyone was happy all the time and so on, so it was a big discussion, and some solution engineers

were in the room. Some of them are online. Um, but for example, due to like one person had internet issues, the other one was obviously on her phone, not paying attention because she wasn't that really involved. So that were the online people, and then the people in the room are really frustrated. They wanted to, um, talk it all through and like air out their unhappiness towards the manager. Um, but then the online people are just not connected and they were not involved in any way, and I feel like that was very unproductive because we all left that room or left that meeting feeling more frustrated.

Did you already also have self-assessments in your team about this?

There was not a system in place like that.

Would you recommend to have those in your team?

Um, I think it could be useful if it was not every time that we, uh, you had to, to measure the productiveness of a meeting, because I feel like that this kind of, that puts extra pressure on you as a group and so on. However, I feel like every now and then it would be okay to measure it.

We have almost come to an end of this interview, but I would like to ask you two more questions. Can you describe in your own words what a good functioning hybrid team is?

I feel like it's a team where everyone is heard or feels heard. Um, and where there is room for feedback, um, on every side and there is a willingness to participate for everyone, both online as well as in the office.

How do you expect the hybrid work setting to evolve within the next decade?

I think with the technology we have right now, for example, those cameras, cameras you mentioned earlier, it will become a huge part of everyday work culture, especially because it will make the world feel even smaller, especially like for international customers or international employees. Um, it's a really nice way to connect with people still, though it could be better, of course. So I think with improve, uh, improving technology, um, some manners and some etiquettes around, um, how you should act online and so on, I think with all of those, you know, with all those techniques and whatever, we will really get very far with hybrid are working because I do think it will continue to be a very big part of, of business world.

One common problem in the hybrid work setting is that like, uh, okay, you have the younger generation and the older generation. So, and it seems that there is like this generation gap because, um, the younger generations does do more like, um, uh, electronically or digitally and sells everything with the laptop, but actually on- site, that's more a typical traditional, problem solving method that like the older generation does. So how can this gap be closed?

Internal training. I feel like every company should have some kind of internal training for everyone to talk about how the company wants to go about these kinds of meetings, these kinds of workshops. Um, I think that could be a very important part of company culture and they could brand themselves

with that too. Um, I just don't think companies have noticed yet how important it is for everyday work life. Um, I do think if every, every company comes up with their own strategy and it's another way to differentiate themselves, uh, for example, for the war on talent to really make a difference there. So I think it's an interesting opportunity for companies to think about.

Great insights. Thank you. We have come to an end of this interview. Thank you so much for participating in this interview. I hope you find it insightful and interesting and I wish you a very good day.

Thank you, Simon. You too.

Interview Transcription 5

Participant 5, first of all thanks for participating in this interview like I said, this recording is only used for the transcription and will not be shared with third parties.

First of all, could you briefly introduce yourself?

I know, not a problem. My name is Participant 5, I am 29 years old. I work Company HB . I am working there for 8 years on the creditors department. My main job is improving the department itself. So, well, that is actually my day job. Very simply and briefly explained, I am improving the whole booking process to make sure everything is becoming automated.

What are the most common tasks or important tasks during your work that need this automation, can you be more specific?

Yeah sure, we get 215,000 invoices in per year. 65% of these invoices are automated. These invoices do not need human attention for actions. My objective in the end is to make sure that the invoices are automated as much as possible, so around 85 % and preferably eventually ever 100%. Only yes, that's taking a lot of years of course. You cannot just automate everything, there is so much more behind, it's also depending on your organization and people who do the orders in a certain stand way. Alle the noses should point in the same direction. I also train people at Company HB in how the systems works what are the ins and outs, what we can improve, there is just a lot behind it to get the right results and we use a lot tools to eventually succeed in the automating process. We have for example a scan and recognize software packages which can convert invoices into PDF and read them out afterwards so that it gets automated into the system. I have optimized this in our system. In addition, we have accounting system that automatically books invoices within certain rules. Finally, we have a system that reads all data from one database so that all the invoices can be read out from the system. After that, a robot does most of the handling for us. So we use a lot of automating tools. So I am mainly busy with improving our systems .

How much of your work exists from team related tasks?

Uuuhm , team related tasks , uuhm I think round the 50%.

Can you describe more specifically what kind activities that are in team context?

I still have colleagues who still are processing the invoices manually because their work still needs to be automated. So I'm busy to do that by leading and supporting them. So that means that you need to learn the system inside out to be able to automate. But yes, of course there are colleagues who don't have that under control yet and therefore they process those invoices all day. Because then you basically have to , there is always a part of the system which is not fully automated. So now we 're on 65% and at the end there always will be a part that needs to be done by hand. That's what we call transaction processing. These people are the whole day busy with invoices, registering, talking with suppliers , internal staff helping with their questions, making corrections that sort of little things, but yes, those corrections are my concern rather more than my colleagues anyway. That is what we mainly do with our team. So for example if someone makes a payment to our

department someone is processing it and I have to do the check. I can hold the payment or put it on the bank so that its actually paid. Yes, for example, I also may pay declarations. Because that is another part of what I do internally, and these are manual payments. Uuh, what do I do me even more? Um, yes, I'm actually giving some advice in the administrative area to my manager. How to deal with some situations because I am doing a lot of research in the administrative area. That's actually where I'm dealing with right now with my colleagues. I have more an advising role in this. The processing work is actually not my work anymore. I used to that, but not anymore. You have to see me more as an advisor or coach in the company.

You said you are some kind of and advisor or coach. You have a leadership role within the company, but what is your leadership style and function exactly?

Yes, well my position. It does not have a certain title, I just grown into it. So yes, normal speaking, I am ultimately responsible, the chief for the payable accounts. So the Chief of Creditors, but I love to work on improvement projects. We also have internal departments for that. I am not an member of this internal department because I am a member of the finance and control department.

It's great to hear that there are so many career opportunities within your company.

I already have a lot had applications and trained a lot of people . I've trained more people then I can count as a manner of speaking. I think about 30 , 40 people. So that's quite a lot.

During our phone conversation, you mentioned that you only work in the office. Do the rest of your colleagues also work in an in-office setting?

Yes. Five days a week. So it is still quite traditional.

What do like about traditional in-office setting?

Its more accessible, the communication lines, so to speak are shorter. So you can walk up to your colleagues and begin very spontaneous conversations with them. You do not need to plan for a conversation. Because we also have an open door policy, so to speak, the door is always open for anyone who has a question to ask. So when I'm working I can visit my CO. I can explain him very spontaneously what we are doing. When you have a team working from home, then you do not have this spontaneity. You do not speak to your colleagues spontaneity, there is less binding, you have to plan everything. I think this kind of work setting is just less efficient. I think so myself that I would have less feeling and social connection with my work. Our management is thinking the same way about it as we have noticed that during the Corona time.

Is there something you're missing when you work in the office, on-site?

I wouldn't know what to be honest. I don't feel like I am missing something at my office. I have a nice team, we have always nice conversations, we do are job well. There is a good balance between work and private matters.

As a manager, what do you notice that is really a problem within your team?

Making decisions on certain issues regarding policies, and the steps we need to make to go further with automation and everyone has their own opinion over an subject and that is actually what I have been doing lately in, and also outside my team, so let's say our entire department. Because we have a lot of personal opinions these days and that only tends to increase. We have creditors debtors, business and finance controllers. So well, all these opinions are sometimes difficult, because you have to deal with those opinions every now and then. This needs to be better organized. Those people can better work together and that is sometimes possible sometimes or even better. Everyone is doing something to solve the issue without communicating with each other. We lose a lot of time then. We actually need to communicate more and plan more who is doing what.

And how then as a manager do you ensure good team collaboration?

I try to start a good conversation about it by scheduling meetings and creating tasks. But yes sometimes it also slips my mind. So it always remains a challenge.

Okay, you start talking about team development here. In each team there is this storming phase, which consists of social conflicts; such as chaos and confrontations. Do you also experience that in your team?

No, that's actually okay. No, not that I can remember. There are occasionally some discussions or disagreements but that will be actually always picked up in a good way and ultimately it also resolved itself.

Suppose there is a heated discussion raised about how to solve a problem, or how to select and evaluate ideas. How is that resolved during these social conflicts?

By just talking about it, taking the time with your colleagues to listen and be open to each other. So listen to each other and try to find a solution. Although I have to admit that I did not experienced something like a social conflict before.

Would you rather work in the office , so continue working as you are now or would you rather opt for the hybrid team work setting?

 \mbox{No} , no , not at all, working in the in-office setting is the best for me, definitely.

Why?

Yes, I just feel myself happy and content with it. There is that social bond that you have together. There is no big hurdle for me to go to my colleagues and go talk to them or asking them a question. You can ask your question right away. There is a certain form of spontaneity. No planning in an agenda if you want to ask something. Okay sometimes your colleague has no time and asks you to come later again. It's just easier. You can always ask when there is a problem. You can always tell your team or your boss immediately and request for help. The strings are shorter then when you would be working online from home.

And that's why you notice that you as a team can also solve problems faster?

That's right. That's right, for sure.

Team creativity is also better known as team creative problem solving. This has 3 phases, the first is problem identification and in this phase you and your team members identify and discuss the problem. Could you describe how this goes within your work setting?

Phew, I have to think for a moment. It is depending on the situation. Look at my work, uh, I mean, my work is clearly about to automate these invoices as much as possible. For example, I have built all dashboards for my work and team. It's all on a big television screen hanging in the department. These dashboards shows what needs to be done, what is already done and the progress of work. So if there is no invoice coming in the system or there is no status change I will see this immediately. First I try to solve the problem myself or with my team. If we cannot solve it together, we gather as much of detail information to pass it to an department in our company to solve the problem. Information like, when did it work properly for the last time? Is there something changed in the system just before it happened?. Did we notice anything before it happened? All this kind of stuff, you know. Because everyone is working at our office we get to help each other the correct way. Most of the time the problem is solved very quickly. I do not see this happening if we all work online, with longer or more complex communication lines between colleagues, so I'll switch immediately to the departments that are responsible for this kind of problem. Yesterday I had malfunction solved, this time it took a while to solve it. But yes, the lines are short in the office and you just have to make sure you know who you need. Every team in our company has their own expertise and we often just send an email or a chat message to a colleague who is going to look at it, and if he can't figure it out , then we schedule appointments to do a brainstorm to see where it goes wrong and which actions needs to be taken and also by whom. If the problem is solved we do some tests and if these tests are okay, we release the system.

Are brainstorm session and team collaboration conversations only held in the office or also via Microsoft Teams online?

We have committed ourselves to record office meetings in Microsoft Teams. Our documents are also stored via Microsoft Teams. So our work is stored completely digital, but we are physically present at the office to discuss the problems and find solutions for it.

That office setting in which you work . Does everyone have their own private office or is it open plan?

It's open plan. No one has its own office. It's one big open-plan office for the department, so to speak. So the creditors have their own department, we are present there approximately with 10 to 12 people each day.

Okay, but how do you communicate with each other, particularly online or?

No we, we also just have really physical appointments, but we record it via Microsoft Teams in case we want to see it back later. If we still have questions after this meeting we sometimes ask the in a group chat if we can meet again in order to discuss the new questions.

I have some questions about the open plan office.

Yes.

For example, what can the organization do to improve the ergonomic design?

In my opinion, nothing . I indicate what I want to have and they arrange it for me, so to speak. So suppose I need a different desk , or a new screen or a new computer, this will be arranged in no time at the company's expense, but I have to ask my organization this, not the other way around.

What does that do to your productivity?

therefore also on my team.

If I can decide for myself what is good for me, it gives me a sense of responsibility and I can do my job better. So it helps on my productivity.

So then you can work better or more effective, also in teams, but individual performance? Yes, I think so. I think if I had a really bad office chair where I need to spend all my time on with my knees against the desk, I would become fed up. So yes, I would think it has impact on me and

We've already spoke about the first stage of creativity, the problem identification. There is also a second stage and that is idea generation so to say, to create ideas. Can you describe how you team is doing this?

Yes, we often have meetings with all the creditors. When we are together in our conference room we talk about the problems where we have ran into. Then we start to do a brainstorm session to generate ideas in order to try to solve the problems that we have indicated. Then we prioritize which idea will solve the problem. This idea will be worked out and tested. If we see that it solved the problem, we document it and release it in our system.

Are there any tools that do you really use in-office or online to generate those ideas?

We mainly use Microsoft Word and save it in Microsoft Teams , we have a lot more applications available to us, but not everyone is using them. Next to Microsoft Word and Microsoft Teams there is really not one application that everybody uses.

Can you give an example of all those applications?

Yes, some of my colleagues use Note, if it needs presented some of them use Microsoft PowerPoint, some do it in Microsoft Excel so let say most of them use Microsoft Office 365 tools package. So that one is mostly used.

The brainstorming session, do you this face to face or with help of Microsoft Teams?

Face to Face but we record this meeting with Microsoft Teams. We write the important notes in the chat of Microsoft Teams so we can see the recording or the notes later again when necessary. Like I said before all our meetings are physically.

Is there anything that can be done to improve this stage, idea generation, within you team?

Perhaps we should work more systematically and use application tools that can support us in this. Where for example is registered when and which notes were discussed. Who does the actions and so on. All this must be stated in a clear overview. So more structure would be helpful.

So you do not use these application tools at the moment, will this change in the future ? For now I write things down in Microsoft Word, but not always to be honest. I need to discipline myself I guess. For the future, I think we need to investigate which application tool will help us the best

Then we come to the last phase, which idea selection and evaluation. If you have generated idea's then you are eventually going to select and evaluate them. How is this phases going in the team?

Yes, that is quite difficult, because we have a lot of things that need to be improved also this phase. It also partly has to do with the automation. We try to this in an Agile way. I do not know if you ever have heard about the Scrum method.

Of course.

At this moment we get trained in the Scrum method. We use a MIRO board. We write down on this MIRO board what needs to be done. So making idea's, evaluate and select the best ones is all work what we write down on this Scrum board. So we prioritize the best ideas and connect them with a team member. It works with colored stickers and each color represents an idea of a team member. Then each day we have a daily startup of and talk about the work that needs to be done. What everyone is doing, the problems that you have, maybe you need help or why you have stopped. We just started, so I am learning. In other words we have not done much in this area yet only in theory.

How does your team evaluate goals and tasks?

As I just said we just started to do this with the Scrum method. At this moment I evaluate mostly the goals and tasks because I do this kind of work already for a lot of years. But this is not really structured and no clear for everyone especially not for my colleagues who do not have the experience yet. So that's one of the reasons we started to work Agile using Scrum as the method for this. We need to learn this as an team because I can be wrong sometimes as well.

Which of these three phases we just discussed problem idea generation, idea selection and evaluation do you think gets the most influenced with digitization or automation? Um, I have to think for a second or third. I think it's more evaluation.

Whv?

Because then it really has to be discussed and my colleagues often find it difficult. Because you have to know what you are talking about and sometimes they do not understand it completely yet. Then it's hard to get it right to explain, of course. Where they evaluated what could be wrong and they made the wrong conclusion. They say that robots are working wrong and if I asked the facts they

really do not know it. Then I start the investigation myself and it turns out that the robot is working fine and they were focusing on the wrong subject. So they generated ideas, they selected and evaluated it but the source of the problem was something else. So they started with something what was really not the problem.

What can you do about it because too improve?

I have to do the research with them because if I do not do this the wrong conclusions are being made. Show them which mistakes they are making, then on to the next problem. I let them do all the work again and I monitor the steps. We do this repeatedly until they have the experience to do it without me. They need to learn that it starts with good research. If you don't do that you start making the wrong conclusions and start generating idea's based on wrong conclusions.

How is the result of the team evaluated? In the sense of team tasks or objectives.

More in the sense of objective. It's team work and we have succeed if objective is achieved. My manager specifies when the objective is achieved.

So can you give a good example of a successful team project in your traditional office work environment?

Well, for example the dashboards we made where I was talking about in the beginning of this interview. At the moment when I was developing those we had a very busy time at our company, there were many invoices and only a few workers were available who could make the bookings. They asked if I could help with the manual booking of the invoices. I did this. At the end of the day we didn't know exactly how much we had done and how many assignments had been added. Also we did not know how many invoices still needed to be booked. Then I got the idea to make dashboards. My colleagues thought it was a good idea and so did my manager. We first generated ideas about what exactly we wanted to see on the dashboard. We chose the best idea and implemented it. Then we could see if our efforts had the desired effect and that turned out to be the case. Now we can manage the team better and everything is visible on a large screen in our room.

So that dashboard indicates exactly how much needs to be done be and how much time about to sit in for that task?

Yes, it's not necessarily a kind of time, you just see how many hours are spent on it and how many hours work there still is. So there a system in place for that now.

Can you also indicate when at the office work was not so convenient within the team project?

Yes, during the Corona pandemic. Sometimes I worked at the office and sometimes at home. I did not liked it. All the work needed to be planned. You had to call people and sometimes they did not answer the phone. Just dropping in for a quick question in the office was not possible. It was exhausting and this influenced the team collaboration and slowed the team progress to achieve results a little bit.

Have you felt a psychological insecurity when you had to call someone.?

What do you mean?

That you think, for example, I might not call that person after all. I'll try it myself anyway, because I do not know if it is convenient to call that person.

No, not that didn't bother me at all. Not all. I had no problems with that.

Do you or colleagues suffer from a generation gap and do you notice this during the collaboration.

Neither.

And come up with solutions?

No, not at all, there is a colleague who is a bit older, but he fits well in the team.

How would you describe a well-functioning office team?

A team that easily discusses problems and evaluates them together. Looking for solutions, an teams that wants to improve the product and service, but also each other. Team members that keeps agreements. Team members that's just walks to you and ask questions without planning for an appointment.

What kind of leadership style would you say you have? More of a coaching leadership style than a pace setting leadership style?

A coaching one.

How do you motivate your people during your coaching or how do you make them feel at ease?

I make sure that they can tell things to me in confidence by keeping the conversation personal and open. Make everything negotiable and you base the results on facts. It is mainly analytical. I'm not someone who judges on my feelings. I really judge on facts and really on the output.

Do you think that your working environment will develop or change within the next 10 years?

Just let me think, how is it going develop my working environment? I think mostly digital, I think eventually. Yes. So I honestly expect that in the long run we will start working hybrid, because in the end, everything is digitized and automated. Your work and private life will become closer to each other, so you work much easier at home. This also makes it more flexible if you just can work at home. You can work at home and let someone do your home maintenance. Now I have to take a half day leave. Things like that make life easier. If we work fully digital there is no need to be at the office. I think the social connection will be lost. We will need to plan appointments. I think the team connection will be less strong than before. That's the personal thing, so to speak. It is less teamwork what you feel. You do feel separated from your colleagues and your team then.

Okay, finally I have one last question. How is the team cohesion within your team and what is being done to strengthen this?

The team cohesion is fine. We have team days in which we have to carry out assignments together. We are all going to brainstorm about this. You can pitch your ideas. I get a lot of energy from that. At the end of the day we have diner. We drink something and talk about all kind of things.

Then we have come to the end of this interview. Thank you very much for participating and letting me record it. Have a nice evening!

You are welcome. You too. Have a nice evening!

Interview Transcription 6

Participant 6, it's very nice to meet you. Thank you for doing this interview with me online. Thanks for letting me record this interview. It will be only used for the transcription and not shared with any third parties. We already briefly discussed via mail what the research topic is of this interview

That's true, indeed.

Okay, great. Let's get started. I will record this interview with my phone as well just in case as a form of back-up.

Sure. Good call. Always have a back-up.

Allright, let's get started. Could you briefly introduce yourself. For example, what kind of work you do, what groups within the company you work and interact with and your main duties?

Yeah, uh, I'm a product owner and within Company K, uh, product owner of, within a specific team, which is, which, uh, is concerned with, uh, uh, developing, uh, innovating and managing, critical communication solutions, uh, for specific customers in specific customer segments. So that's basically in a nutshell what my responsibility is and what my function is. I'm product owner within a team The team is about 13 people, uh, large. Um, it exists of, uh, technical, uh, maintenance personnel. It contains, uh, consultants, architects. That's the majority of what we have on board. Um, so that's who I am and that's what I'm responsible for so far.

Okay. Interesting, and how much of this work, uh, consists of teamwork related tasks?

Um, when we started this team. The team, uh, exists, uh, was existing out of, uh, say about nine people, uh, which were all individually working together, I could, uh, summarize it like that. Uh, and during the process of developing the team, even further, uh, we started to work, uh, agile scrum as because, um, a large part of the work, not all the work, but a large part of the work is complex of nature, uh, and because it's complex, uh, it needs to be, we need to be able to, uh, chop, uh, and the issues we have, uh, so the work we get it, chop it into pieces, logical pieces and solve them one by one. Uh, so in that context, we decided to use agile scrum as a, as a method of working, uh, to manage a more complex problems. Uh, indeed, we have also more, uh, recurring work to do and that work we do in the same fashion. Uh, you could say, yeah, that's overhead, but basically we chose to manage the work with one working process. So, uh, but the main driver is the complexity of the work and we do that now more and more as a team. So our team is divided into four specialisms or three specialisms, I could say, uh, physically it's, it's about these 13 people, uh, but they have three types of, uh, attention areas, which is a platform site for the system we do. There's a, so that's more the backend of the service. So we have a front end part of the service, which is device oriented and we have a part, uh, which is, uh, concerned with the IT and processes, uh, which are implemented in the, in the team and that's more supporting, supporting team, but all these teams, they work together. Uh, so you, you could imagine that whenever a, uh, a work comes in, that's my part of the work. Yeah. I have contact with the stakeholders outside. I take in the work. I discuss the work with the teams. Uh, then we, uh, take, take parts of the problem and each team, uh, gets assigned a part of that bigger problem and they work together, uh, as smaller teams together on their focus and their focus area, and as a, as three teams together, uh, in the, to, to gain consistency between things teams need to do together. So there are two levels of working together. That's based on the team efforts. So the backend team has its specific problems and the device team has the specific problems, but they also have joint problems when they work on a specific project that can bring in.

Very clear. Thank you. And, uh, you just described that you lead and divide teams, but how has the hybrid work setting influenced your leading tasks?

When you mean hybrid team as a team, which is, uh, working together on a specific task at a specific moment, uh, and the team works on two separate locations or three separate locations or even more. Um, you mean that specific situation?

Yes. That one.

And then question with regards to that situation?

How has hybrid, uh, work influence your leading tasks?

Uh, from what I can, uh, observe, uh, I'm not observing every and each, uh, refinement moment that the teams have, but at those moments I am with those teams. What I see is that, um, communication, uh, the simple thing like listening, uh, and asking questions and, uh, and understand that there's medium between the two people, uh, so one is in the office and the other one is on, uh, on this, uh, kitchen table, so to speak, uh, that you take, that you take an account that that's already there. Uh, and that requires a very specific and, uh, ease in communication. So listening and, uh, asking questions that's one of one of the basic things that's, uh, that needs attention. The other thing is, uh, working methods. So when you're working in a creative process, uh, so you try to resolve a problem, the first thing is that you need to have a clear vision on the problem. Uh, that's an attention area as well. So what's the issue you try to resolve? So when the product owner comes in with an issue, uh, the team needs to be very critical on what's the issue. they, do you really understand it or is it fed up with all kinds of assumptions, which are not tested? So, uh, what you see is that there are, that's a very, there's a very large part of doing assumptions and a lesser part of doing the validation of those assumptions. So, and that's, that's not becoming easier when you work, uh, in all different locations. Uh, so that's even the reason why we think about having more moments in a physical office. Uh, because the process can better be less when you are, when you are really together. And if you, are more, uh, if the team has developed the skills more on that, in that arena, then you can do that work also in a hybrid setting, but that hybrid setting is giving an extra dimension and an extra difficulty there.

So you described the communication and the collaboration, uh, with your colleagues and that listening is very important in the hybrid work setting, but how has your leader style changed in a hybrid work setting?

Um, this is, this is from, uh, recent periods. Uh, I earlier on had a scrum master basically in a scrum team. The scrum master is to assure the communication and the work style of principles are full out and that you have effective meetings and so on, that's more the coaching part of that. And we have a scrum master, which, uh, tried to help us out getting this resolved. Uh, over time, uh, we saw that, uh, his, his energy level there, he wasn't able to achieve that part. Uh, and also his, his, his, uh, personal, uh, uh, things he wanted achieve did not fit, uh, what we tried to achieve with this team. This team had required a different type of support. So quite recently I, uh, I asked for a, uh, not only scrum master, but also an agile coach to help out and figure out what we need to do to be more effective as a, as a team, because communication in the, uh, creative process, isn't there, if there isn't a, uh, a good and effective communication process going on in the team at all. So that was the first step. So my, from my perspective, as a product owner responsible for the output of the team, I sourced in someone that could help us. Uh, and then my personal position in that complete process, I'm part of the team as well. So, uh, from my perspective, it was best to, uh, step back and try to figure out together with the scrum master and listen to the team and listen to what, uh, what was going on. So what, uh, caused and is causing, uh, this listening and asking, uh, culture not to, uh, not to really be there and exist. So that's, uh, that's what we currently in and basically what we did, we made some, some very basic, uh, rules. Uh, and, and we really spoke out that it is required, uh, that everyone listens, everyone gives space to each other to tell, uh, uh, what he or she is thinking. Uh, and what, or what he or she's opinion is that the others listen to that and ask the questions. So, uh, bring in some kind of ease into the team. So, uh, so that's, uh, take out the stress so that everyone, uh, feels that they need to say something, take out that and give space to each other, uh, to ask questions and, uh, and don't, I feel that you are, uh, welcome to ask those questions. Uh, that, that there's no one that says has a, has an opinion on that. So creating a very safe space for everyone to say, uh, whatever he or she thinks, and these conditions, these, these bare conditions, these are pretty requirements for a team to effectively innovate.

And during this process that you accurately described is there a certain leadership style that you have? For example, do you have a pace setting, or coaching leadership style?

Yeah, I would say that I try to, I learn as well. So I don't know exactly what my exact leadership style, how you could describe it. Some would say that it's, uh, some would say that's hierarchical. Some say it's not, uh, I'm very much, uh, researching always. So, uh, why is someone saying something or why is something keeping his mouth? Uh, and, and why has someone, I said an opinion and why does someone not listen to the other? Uh, so what I try to do is then intervene and, and try to, uh, reach back to the preconditions we have discussed with each other and the agreement have, uh, that we should listen to each other, uh, but also connect people in the discussion. So when I see that someone, uh, wants to say something and the other one keeps on going over it and doesn't provide space, uh, or is lost in the discussion. So he wants to say something. So I try to keep an eye out so that everyone, uh, can tell whatever he or she wants to say. So I try to coach

that as being a part of this and well, try to do my best there, uh, and give everyone a fair chance, but also, uh, not scared of the sharp discussion and not sharp in the sense of, uh, hurting people, but really, uh, try to put people to think.

Are there like some kind of events that you have found to be successful to maintain this employee engagement that you just described in a hybrid work setting?

Uh, this typical situation, um, what I accounted in a hybrid situation that, uh, that listening and not being listened to, uh, people, uh, yeah, this was mainly, uh, you could mainly sense that during the online settings where mostly everyone was at home. So that's a maximum hybrid setting. So everyone is at home. Uh, and then what you see is that not all the people have their cameras on. So you can't see what they saying at all. You can't see what their, uh, emotional state is. Uh, so that's what I found, that's what we did discuss. Uh, but that's what, what's typically the situation, that's about, uh, 70% or 80% of the people, they switch off their cameras. For some reason, uh, and that's in an hybrid setting. So, uh, the count, everything together, there was a reason to, uh, discuss our, uh, our way of acting and working together, uh, even while we are physically together, and that is a pre-requirement to be effective online as well. So we need to, uh, we didn't even address that part yet. Uh, when we go online, everyone should be in the position to switch on this camera, uh, and then effectively, uh, discuss and have an effective way of discussing the things together. So that's a pre- requirement. And then going into the process, uh, uh, another thing I, uh, what my style brings with it is that I would like to see the team learn, uh, new things. Uh, my team is very inexperienced. They think they are experienced in an innovation process, but they aren't and they are very unaware of innovation methods. Uh, and they mix up a technical innovation, uh, with innovation in general. Uh, but, uh, the technical innovation that the word innovation is there, uh, but technology, and discussion about what the technology can is mostly dictating the discussion, but not a problem that has to be solved. And that's what innovation is. Uh, and innovation methods are mainly, or, uh, one third of, or even 50%. Is, is, uh, evaluating, uh, the problem and you try to first get a clear understanding on the problem and do everything which belongs to that. And the second stage is when you have that problem. So in the first stage, you need to very interact with your target audience. And for who do you, for who are you solving the issue, but are you already in contact with those people.

How do you do that?

In contact is not asking only, but it's also listening to them and not concluding, uh, but just gaining information and share it with other colleagues, uh, and have a open discussion around that. And so what I try to do, my, my added value there is to make the team aware of, uh, uh, I'm now currently in that process, making them aware of what that now exactly is, uh, to innovate and what they need to do for that, and in a hybrid session, uh, if you would say, uh, you, you try to resolve a, a, a problem at the customer and, uh, the interaction with the customer, how do you do that?

Is that effective to do that online or not?

Uh, in a project we currently do, we've chosen to do that physically, and so a set of process around the customer to try it in, uh, uh, through, uh, interviews all their work spots on the place they work and get an insight on what they do and, uh, which issues, uh, are, are actually, uh, things they are confronted with and they would like to have resolved and for what reason. And so the base and case model, you probably know, uh, is, is used there, uh, to get a clear understanding on what the issue is of that typical persona. Now, my team wasn't aware of those approaches, wasn't aware of those methods, uh, but they did think they were very innovative and there's to be effectively innovative, you need to, uh, be, be capable of using those processes as well. So, and if you want to do those processes, even online, that's even the next level, so to speak. So in your specific research and what you try to get a clear picture of, uh, is what would be the effect on the creative process, which is the process after you've really identified the problem, you try to, uh, get your head around a possible solution space, uh, that, that process and those methods, they need to be internalized by the team before they can effectively do innovation at all. Uh, and, and, uh, do that and they need to, uh, have the skills to communicate effectively around this and do that online and then which is the next level type of communication as we all know.

Very interesting and accurate description uhm and so we already talked about the first stage of creativity. Now you have, you already had that in your answer about the, the problem identification, you do that with, with clients predominantly. As you said conduct the interviews, uh, with them on site. That is done face to face. So you have already described the first stage of team creative problem-solving. So then I will go to the second one.and the second stage is called idea generation, which means that you are creating and generating ideas, um, uh, for the, the problem that has been identified in the first stage. How do you do this when working in a hybrid setting?

Um, to be honest, uh, that process is not, uh, not followed as I have envisioned it. And, um, in the project we currently do, uh, I take that as a reference point for your, for your understanding. Uh, so we have a project with, uh, uh, uh, um, so to identify what the needs are for specific user groups that we just passed that part, so then you identify the, the issues which come with that, um, the method we use, is the method of identifying pains and gains, uh, take and viewing the jobs to be done. Uh, that's basically the approach and so that's the process side. Um, if you then add so that still belongs to the problem, uh, categorizing the problems and get your head around, okay. Uh, we now have a clear view on, uh, what the real needs are. We prioritize them and we make a selection of those, uh, things. So we, we first take the things which are most needed. Uh, then you take your number one. You need to put that in an ideation process and ideation process. You have several approaches for that, uh, several types of, uh, ways to ideate. that's typically not something, the team is, is mastering currently.

Why?

Because they're not used to do that. What you see is that whenever there's a problem, they directly are in the solution space already. And without going through the process of evaluating and building on each other's ideas and that's where, where the team aspect is coming back. Uh, ideation, solving a problem as a team process, which you now see that an individual thinks that he needs to resolve that issue itself, but it's someone needs to be, uh, currently they're still the situation that the one with the largest voice or the one, uh, which can convince the rest the most, but there's no mutual

process. Which, uh, neutralize all these elements. Uh, it takes out, uh, um, the prejudice people have with regards to certain solution, uh, directions. So to be honest, uh, that's a process that we are not mastering and we are already, we are not doing that online at all. So we, we are skipping that process at this stage. So what I, what I'm currently doing with, uh, with two people in my team is to coach them on that part and let them work with, uh, the people with a more technical background and help them, uh, being part of that process. So we are still building that.

And that's, that is obviously how you would improve those situations in that stage. Are there other solutions for this or not?

Um, uh, yeah, the first thing before you can do that, even, uh, even online, uh, you first need to master this process, and I even think that the part of the, that's really the creative part of the process. I wouldn't even dare to do that online at this stage. Uh, the maturity and majority of the team needs to be, uh, higher and they need to be more experienced with, and they need to be open for those methods, that's part of the thing as well, and so to be open to, uh, to those new approaches and, partially that I think that has mainly to do with the age of the team, uh, that not everyone is so convinced that these methods will help them, but, uh, if you are honest and take a look at what the innovative output is of the individuals, that's not so high. Even though, uh, the team thought is that they are innovative. Incrementally, they are innovative in smaller improvements, they are in place. Uh, but there's no, they are the process you need to follow to do that objective there. So, uh, the first thing to get that done is to create awareness within the team and do that in an open way that requires this communication process. I just sketched you, uh, to be open and see that that part is not really, uh, at the stage we need to be. Uh, and if that's in place and we have done that a few times, then the team can, can do their own refinements, which in some cases require this. Uh, this ideation process when they have to solve a specific problem, uh, they can do it online, uh, there, but these three requirements need to be in place.

There are two very interesting things that you shared within that answer and would like to take those out. Uh,the first one is, uh, you said I'm not comfortable, with the second stage, the idea generation to do that with my team online. So that means that you preferably do it on site or in the office with your team first to master that process, and then afterwards, once that it has been mastered, you can check out if that works in the hybrid or fully virtual setting, correct?

Yes, you're completely correct.

And you also said something else important. That's the second point that I want would like to touch upon. Um, that is, you said, well, it might also have to do with the age or the average age of the team. Uhm, what is the average age of the team? And is there a clear generation gap?

Yeah.

How does that uuhm, manifest itself?

When we started this project, uh, I already, uh, we came out of another we are, we were very pushed back into the company. My team, they had to create everything the customer had in his hands, but we didn't saw the customer. So the first thing I made sure of is that, uh, in the, in this second project, my team was directly facing the customer, and not, not, uh, to have them facing the customer as a goal on itself, but to, uh, do the research, which is required to get a clear view on the problems there. That process, what I tried to introduce down there, I did that through two agents. Those agents came from, uh, Ordina. I thought of, okay, when I take two younger people, uh, which are, allegedly to be accepted by the team. I give them the, uh, the task to set up this approach, to set up this innovation cycle with all the activities in there, including the ideation. What I saw is that for, uh, partially because there was an unfamiliarity with the approach, but also, uh, because there was an lack of openness, uh, to accept and someone's telling something new. I don't know that. That's a different approach than that. you say, okay, oh, that's new, but I, we are really doing innovation. That's, typically a different approach that you are not aware of your own limitations with regards to your capability of innovating and so, um, and those, those answers came mainly from people from these, uhm more experienced between quotes, people, all the people of the team. So, and these are people around with, with, uh, ages, uh, in the fifties, but the younger people, when I took them in, the younger people, those younger people were very eager. They didn't know exactly what design thinking was, but they were very interested in what my approach was and what had to be done. So they were very eager. Uh, same thing. They didn't knew really in detail what it was, they perhaps had the same view on innovation as the older people in my team, but completely different approach, completely open style, and I have some other, uh, people in my team, uh, older people, which have a more learning setting, people that you see taking all time types of training, they are very much more open to learn and try to experiment with new approaches, so that's how, how I can see, uh, that age related, and it's not only age related is, it is also the eagerness and the openness, the openness for new things and the eagerness to learn

And this, this age related, um, issue.

Not specifically age. Perhaps that's not specifically age related, but I saw mainly this, this resistance type of, uh, uh, thing, uh, at the group older, employees, which didn't show, uh, a very learning attitude as being, I take this training, I do that, and I want to learn this, you know.

What can be done in order to tackle that problem

(Chuckles). Have an open discussion with them, uh, and say that you want to go this direction and that you find that it's important to learn this team, learn this approach, and then, uh, make, make it a part of, uh, of the work attitude and work, uh, and, and being a part of your, uh, your toolbox, and you need to have the feeling that if you miss that part of your toolbox, that you are a lesser of value to the team, and so it needs to be, it needs to be felt by the team that it's very important to have those skills there to be valuable for the team.

This problem that we just, discussed in an online setting or in the office setting?

Uuuh, we had moments, uh, that we, uh, there were moments that those two people I assigned with a task that they took the team online and explained what the approach would be and how we would

fit it into the project. So that has been done online. Um, I wasn't always there and that there's a specific reason for that because I find that it's a team process. So I asked two people in the team to initiate that, uh, renewal inside the team. So it's a, something, a fire started from without, um, but initially I lighted up the fire, uh, and that's, uh, that's a risk as well, so as soon as, uh, as the team, uh, found out, okay, those two, two people, they, uh, uh, they're going to bring in this new approach.

So, uh, what I will do first, I will, uh, take you down stairs because I'm sitting on the second floor here and people are going to bed.

Not a problem. I can wait. I completely understand.

Okay. Just a few seconds.

Yeah. No worries.

Okay.....(momentent of silence)

Just a second......

Do you still hear me?

Yeah, I still hear you very clearly. Loud and clear.

Okay. All right. So that's done. It's a more relaxed setting for me as well.

Good. That's very important. That's like the, the physical ambient condition of this research project, which we haven't touched upon yet, but we will discuss that later.

Right. Oh, where were we standing again?

You said like, um, but I should initially like that as well, that risk as well, and you were lighting up the fire a little bit, uh, you said, because you weren't always there during the in-office meetings to discuss this generation gap. That wasn't the only reason but also more openness and the eagerness. That's, where we left off, and when you went to another room and, plugged in your computer.

Um, yeah, so, so I haven't been always in the discussions with the team, with regards to, when those two agents, uh, put it, uh, took along and the team and to start working or innovative and, and they use this approach, but basically I stole it from my own research with what I did during my own master, uh, because I am very confident, uh, that would help to change the culture inside the team and to work, uh, through this, through this approach, you first get a climate, which is more open and so that's exactly what we're discussing here. So, uh, using this method, uh, requires the people to go open. Uh, and because we had those closed people, uh, and I know what my influence

could be, uh, being in those, all those discussions, I chose to be outside, but I looked into those two agents to listen in on how they were progressing where they went and walked into and what the challenges were. So I coached them to coach the team, uh, and then influence, uh, the team through more neutral, uh, agents, uh, that were, uh, more absolutely bringing in the approach, uh, that had, had facets of risks, uh, because how, uh, effective would they be because they were pretty young, uh, they are end twenties, and so, uh, perhaps a bit younger than you are, but some, some bit older than you are. Uh, so, so that was a risk, but do that in a, in a project context. And so the project I chose to do this in the project as well. So that's the second risk. Uh, so I took quite a lot of risk, but that's innovation as well taking risk, uh, to do something new. So what I think I'm achieving slowly, but progressively, uh, seeing people embracing this approach, uh, without having the, um, the old methods in place yet, I see that the correct attitude is there and the attitude for innovation is, is more driven by culture and openness. How open are you? Uh, how eager are you? Uh, how creative are you by thinking, uh, how open is the team to, uh, with each other, is there someone who's the elephant, uh, is, is there a balance in the team, so is there not one who determines, but it's the team that determines. So I think that we are slowly progressing and, uh, resolving this by using two agents, uh, and, and lighting up the fire even more from the inside. Be being me to be the fire starter. Uh, but not there to visually there, uh, to, uh, to blow more oxygen into the fire, but let that be something of the team itself. So I made the team a bit more multidisciplinary, which means, um, there are more different backgrounds and cultures coming together with different kinds of, uh, perhaps professions and educations that can help the team to increase their creative and ultimately innovative output.

I can understand that. It does frankly take some risks, but like you said, you know, the greatest individuals and teams, uh, or groups of individuals, they have made the greatest inventions that we enjoy and cherish today because of taking risks.

So currently you're working in a hybrid setting and in your, uh, team, it is predominantly working from home. Would you change that, uh, because of what's going on in the team at the moment?

Uh, the thing is that you don't want to be too hierarchical and in the team, so you don't want a team to be told what they need to do to be effective. Uh, so, so the approach is my style would rather be, uh, to confront the team with their effectiveness. Um, and we have a DevOps team, so we have both Dev and Ops tasks. The majority of the people have a background in the Ops side. So the development side is very much underlighted. And that's what, what the majority of, of my revelation from the last, uh, uh, hour is, or mostly is. So that the innovation part, which is required, that needs to be done by people coming from the, the operational side as well and operations. People think very much in solutions, not in analyzing, uh, for a longer term. And then I try to make choices between possible solutions and then choose one of those solutions and so on and so on, what you see in an innovation processes, that's not what they do. They want to directly, they have a problem and this is the fix for it. So they skipped part of the process. So they need to be firstly, uh, get a clear understanding that

they need to be skilled in that. And the best way to be skilled is through that, uh, on-prem, uh, with your colleagues, uh, to get, to get your head around it and how that works, so when you are involved in a development task, then that's a part. Uh, you need to skill in first and then if that's done, you can do it in every setting, but then again, uh, with the correct communication skills. So if you are very introvert, and you're not saying so much. Yeah, how effective can you be? And, what could be, uh, the effect of a product owner on that behavior? It's just part of someone who is, with what he is, the only way you can alleviate, or the only way you can, uh, uh, work with these type of people is have them in a physical place, and ask them things to do and address them directly and even touch him, give him a handshake, give him a patch on the shoulder, you know, all these things, uh, uh, determine whether a hybrid setting being people in an office, people at home, if that's very, uh, effective. I think, uh, again, it's, that's really for teams that are high class, uh, high performance teams that have skilled themselves in communication and, uh, methodically working according methods. I can make use of the electronic means. That's also not to be, uh, underestimated like using a Miro board, uh, together with your process, uh, or using a sketch board in teams, use that in your process of, of creativity. All these things can help if you have a really disciplined group in communication that use these types of tools.

So if I understand you correctly, you could say that the psychological safety or trust has been decreased in the hybrid work setting.

I don't think it's decreased in a hybrid work setting. Uh, I don't really think it's decreased. It has something to do with the preconditions, uh, with the employees on itself at that stage, and we were forced to work during the Corona time. We were forced to work online, do these things also online. So we've done that, uh, uh, we worked that way and it works. Uh, I am pretty much convinced that it can work, but you need to be very, uh, skilled and skilled, but not only skilled in being able to use the tools or being able to, uh, communicate well, but you need to also have to come, uh, to be convinced, uh, that, that what you're doing is really worthwhile. And so that brings me back to, uh, what I said in the start, if you, if people think that they are already innovative and that they have the skills to be innovative, um, yeah, you need to go through that part and it's the eagerness to learn comes back there. So you need to be open and eager to learn. If you have all, uh, went through all these steps, uh, uh, and the team went through all these steps, then they end up being okay, capable of using all these tools, listen to each other, are convinced that, uh, the way they work a problem, uh, is exactly what you should do to reach your end goal. If you are there, then all these, uh, then hybrid working is not an issue. It brings, it's just, uh, I would say it's just a next step in being even more, uh, mature as a team, an innovating team. So I think every, in each team, uh, needs to have these prerequisites, on boards to be effective, uh, when you go hybrid. But then again, it's also important to get back to that only hybrid is not working. You need to get back in the office and for the more complex tasks, and your social activity and social interaction, which is required by that process, social interaction in having a chat, uh, during the breakout, uh, at a cup of coffee or, uh, walk to, when you have a break, walk to, uh, the village to have a bite with each other an these types of things you don't have, uh, if you are only doing this in a hybrid session or even only at home.

Are there like sufficient, um, workshops or trainings provided by the organization to execute kind of work in this kind of hybrid setting? Previously you mentioned Scrum and Agile.

Yeah, those working methods, these are really, perfect for working hybrid. But, uh, you know, if you, if you take a look at the Scrum, uh, sequence, uh, and the product owner brings in a problem, then you have a task that you have a refinement session. The refinement session, you can do that. That will be the, one of the first stages you can do online. Pretty good. When you have your communication, right? Asking, giving feedback, uh, providing, answers to questions, uh, summarizing assumptions, getting those assumptions on the paper.

and the first stage of the Agile work process, it would be very, well done, uh, online. But then the research, which is required, uh, to really validate, uh, the problem and so is the problem which is brought into the problem or not, uh, requires interaction with your customers mainly. Uh, yeah, that part in my, in my opinion, always needs to be, uh, physically, uh, if possible, if not, yeah, then you can do it online, uh, you can, you can do online interviews. When I did my master, uh, I was required to do all those online. Uh, I, so I did group interviews online and you can pretty much do that if you have a very disciplined group, and so, uh, I pretty much think that is something which we are capable of.

You mentioned that the client interaction, that must always be done, physically, but that is not always the case. So as a post-pandemic consequence, I assume that has been changed then?

We are in the happy condition and that we can talk to our customers directly.

Okay good. Um, so we have discussed the first two stages ofcreative problem solving, uh, I touched up a lot of points during the second the second phase, this one had the biggest problem you said. So I would like to come to the third and last stage of a team creative problem solving, which is idea selection and evaluation. How does that typically go in your team in a hybrid work setting?

Uh, typically my team and it's, uh, from my own research, it's not typically my team, but that's, that's pretty much very, uh, technically oriented teams. They, tend to, uh, go directly focused on a solution and so they skipped the problem. They skipped the ideation phase. Uh, they directly go into a solution and, uh, would really like to implement it directly without thinking, Oh, okay. I have a customer which I need to, uh, uh, provide the solution first to see whether my assumption with regards to his problems and the resolution of that is really, uh, uh, created with this solution, you know, uh, that comes very much from their background that they are very operationally oriented and they think that they need to provide a solution directly, but providing a solution requires, uh, also, uh, the interaction again with that same customer. So you have that customer and customer group during your problem research, uh, you do your, uh, ideation. Ideally together with your customer, uh, together with the people you, uh, for who you try to resolve the issue, and then, uh, during third stage, uh, to the validation of those solutions and all the questions which come out of that ideation phase, all the assumptions you do there and validate those, uh, that's not done and that they are directly going into creating that solution, and uh, in our situation, showing something,

uh, requires physical, uh, a physical space, but, and that's nice, and that's, that's, uh, what we learned is that first we thought, okay, when we, in our, uh, business, we can only work physically, but that's not the case. So that's a real difference with regards to, uh, our, our thoughts earlier. So we have created all kinds of solutions, uh, to be able to work at home, do all our tests, uh, at home, uh, and even involve customers in those tests when we are at home. So you can create everything we did physically to show something we can do now online and uh, so, there you see again, the technical, uh, uh, skills of the team to put everything in place to make it possible to do things remotely together. But the process, and we are not talking about the hybrid or the means to work hybrid, but the process you use during that hybrid working, uh, that's, that's determining your effectiveness. Of course, if you don't, uh, if you're not skilled in that process of showing your customer, uh, and being keen on your own assumptions and when you show your customer that first, uh, uh, solution space, uh, in a typical prototype, uh, and, and getting the feedback from the customer and work that, uh, and integrate it into your solution or even be able to say, okay, this solution, I find it a very nice one, but my customer doesn't. So I need to get back and need to go to another solution that has nothing to do with a hybrid workspace. You would like to do that online, uh, uh, if possible, but you need to first use that approach. Uh, you need to have that approach in place and you need to, again, have those people, uh, the people in the team to be aware that these steps need to be taken.

Yeah mentioned that, um, by working hybrid, we even have our products. We can even do a client interaction from home. So it's nice to see how this working from home setting has evolved into something that you can, uh, be used, uh, for your clients and also for team interactions. But could you explain what is missing when you work from home?

Uh, I think mainly a space for the people and not everyone has that space to do all the things you can do in a office space. Like, my people needs, uh, and need space to put their equipment and work with that equipment requires a specific room. Uh, but don't, yeah, the room needs to be safe and because you put in equipment, which is valuable, um, you need to have a, have a good camera, uh, to show everything and what you have when you're doing it, and we talking about third phase. So we talking about doing prototypes, uh, showing, showing what you have created, uh, and, and discuss, uh, uh, the results. Then you really need equipment to do that, so what the team members do, they are very creative and looking at, okay, what, what type of tools do we have? We can use to do that all online and show it to each other online. So there's creative creativity along all the way. Uh, and they, they put everything together to make it even better. Uh, but I think the majority of the issue is, uh, having space and how a private space that they are not disturbing the rest of the family with your stuff.

Okay, I would like to come back to the physical ambient conditions that you just described. Because space is very important in your individual home office, as you said, as it's not as good at Company K. But what about the ergonomic design in you home office?

So now that that's not, that's not the case when you, when you get your, uh, your home workspace, uh, people are sent to your, your location, uh, and you get a really good chair. They put it on your

position. You could even ask to set up your, uh, your work spot. So Company K helps, really helps you to set up a healthy work spot at your home.

Speaking about um, this space that you addressed, um, there's more space, obviously in the company's office. So that's one. Uh, but the equipment itself, the good camera that you described, uh, the good, laptop or computer or lightning, is that also provided by, uh, the organization or is that all good, the physical components?

There's, there's a basic setup for every, and each employee, uh to work with, but if, uh, team members require specific new things, for instance, uh, one of the things I was thinking of to, to support the creative process, to have a, a, a touch pad with a, with a pen, uh, to use the whiteboard more interactively with each other. Uh, if that would be a good, uh, uh, solution for that, there will be no problem to purchase that for each team member, and to, to give you an example. So if, if there's a need be for something, uh, it will be provided. On the other hand, uh, we also have something like a GDPR. So, data needs to be safe. We are talking about creative processes and developing new products for Company K and putting everything in the cloud. You can understand that that's an issue. So providing tools is Miro, which are all online tools, which Company K doesn't support. So, yeah, it's very hard and very harsh to get, uh, to get your hands on. So, and you see that all kinds of workarounds are there. So that's one, uh, things like, uh, uh, interview tools, uh, simple tools like, uh, uh, you know, all these tools, uh, tools like you use now to analyze this discussion, and then later on, like Atlassian, uh, not Atlassian, but, uh, I believe it's, uh, what's, what's, what's the name, what's it's called, uh, to, uh, uh, to really analyze your, your interviews and, uh, break it up into themes. Uh, you have these tools as well. So they, we don't have those. okay. So there's, there's a real lack of research tools. Yeah, and that's, that's to be understood because that wasn't previously a big part of each and everyone's job because it was seen as a specific tools, but these type of tools are not really so, uh, accessible, so to speak. But you would to recommend to have those at Commpany K in order to be, uh, to improve your creativity and to creatively solve a solution with your team. As being tools in the innovation process itself, and when you go to do interviews and you try to analyze those interviews, uh, getting back to themes, uh, and, and then from there create a focus on the most important parts and then try to get, uh, solutions around those. I think, yeah, I would say that they, uh, that they are required ,and I would like just to like Survey Monkey, very basic tools we, we don't have those.

One last thing about the idea selection and evaluation, because we're still discussing that process, actually. You described that very accurately and, how that goes in your team, but what can be done to improve this last stage?

Uh, again, also there to be aware, getting acquainted with the approach and doing it, just doing it. Uh, innovation is just doing it and, explaining how it works. Be open to that approach and to the approach. So, uh, also here, uh, that's the, uh, that's the rule of thumb, I would say to just do it in the right way and have a coach to help you out and see, okay, uh, if you really perform that task, uh, how did you,how did it go for you and then see how you can improve on it. So that's, that's learning on the job, uh getting the theory there, directly doing it in practice and learn from that, uh, the same way as innovation is meant to be, uh, it's the same counts for, yeah, learning from your

own approach. So I would say that would be the way to get it internalized, and get it internalized, uh, and getting back to your, your main question. Can you do that in a hybrid setting? I would say that could very well be, uh, taking a look at all the technical creativity there is, uh, within the team set of all the tools to make it possible. Uh, the thing they need to do is to get the process there in place. And then we get back to, uh, what a hybrid team is all about. Uh, as I said in the beginning, my team is very much, uh, technically populated. Uh, what I didn't say is that I, uh, very consciously added non-technical people to those, uh, to the team, but with a different background, uh, people with, uh, uh, with a healthy appetite for technology, uh, and people with a healthy appetite for, um, how work processes are going, and understand how things should work for customers and so more a consultant type, uh, and even younger people, uh, in that, in that approach. So that gives a mix of the team and that makes it possible to, uh, uh, to start up the learning process. Yeah, that's just what I explained with those two agents, uh, bringing in too, but also having a, uh, a younger population of uh, people, not only technology driven people, but people that also take a look at how should we do things and how should we organize those?

You said that the second stage is the most problematic, uh, in, in our team. Uh, would you, would you also say this stage is the most affected with digital meeting technology or not necessarily? So, uh, the second stage, if you talk about technology, the tools we would like to use there is things like the Miro board, uh, supporting the, uh, creative process and, and the process itself, which I have explained earlier on in this phase. Uh, you work with the outcome of the second phase being, uh, and the directions. So the tech, mainly the technical team that is in, they are putting their power there. So they already can go ahead and creating a solution. Uh, and then need to be people around that. They say, okay, not focus on the, your, your, your solution, focus on the solution for the customer problem and to have that balance there, we need not only technical people, uh, in the mix, but we also need more process oriented people that don't forget the customer. So, uh, there are the digital means, uh, the team already thought about tech technical means to have the ability to do it online and that's, that's done by the team itself without, uh, them doing that because they wanted to, uh, to do this third process online, and they just did it because they had to work during the Corona time. They had to work together online.

During the Corona time often conflicts, chaos and confrontations often arise within teams. did this also happen in your team in those, in those, uh, processes?

Uh, you should try and explain a little bit better what you, what your question is there.

My apologies. So like in any, uh, team development there can be some kind of conflict, success, chaos, or confrontations within the team, uh, that often arise. Did that also happen in, in your team?

You mean driven by the fact that they were working hybrid?

Yes.

I do think that it's, uuh, that it, that it added to situations where it indeed became hot, so to speak, that there were more, um, uh, confrontations online, unpleasant confrontations online, um, driven by the fact that we had to work hybrid, uh, people that didn't switch on their cameras, couldn't see their state of mind, um, the communication styles that are used by, uh, specific team members. So the ad hoc of, uh, being not so mature in the communication style, uh, being not visible, uh, so you can't see what's happening on the other side, uh, that adds up to, and that's, that you don't have in a physical situation. You see everyone, you see what someone does, how his face is, you can't hide yourself there.

So what you say, not only the, the, um, multi-level, uh, model communication, uh, influences, um, like the, the creativity processes, uh, but also if something is, uh, so like audio versus video or audio and, uh, uh, audio plus video, um, but also when someone is, uh, sitting, you know, in his home office or some people or some employees and the others are sitting in the office, the ones that are, uh, sitting at the home office are somehow being neglected. Is that, is that a correct description?

Yeah, for sure. That's a situation that has typically to do with, uh, what adds to this, the technical solutions we currently have and even, uh, which are very basic. Uh, we have a large screen in a, in a meeting room, uh, where you see, uh, some people sitting at home in a static setting. Uh, and when you, uh, when, when there's a large group, say a group of, uh, 50 people, you have three people online and then you really need to manage the process and you really need to have good communication means and all the meeting rooms, uh, at Company K, uh, they do not have these good means. The newer rooms, which are the team's rooms, they're more, they're, yeah, more developed. Uh, they, they zoom into the one who has, uh, has the floor, so to speak. Um, audio is better oriented. Uh, so there's more done on the interaction and giving everyone a fair share, the same position in the, in the meeting as whether you are at home or in the office. Yeah. So it's very much in the, uh, technology adds to that, adds to that, but it's not the only thing. Uh, again it starts with having a good attitude and having a good discipline,

And as a leader, you obviously, uh, will, uh, direct the team when those obligations are met.

Yeah, exactly. You need to have a feeling for that, uh, that you, make sure that everyone's there and everyone, uh, gets fair share, uh, in a regular meeting that's already, uh, difficult and very complex. Uh, let's say in a, uh, in a creativity set, in a set where we need to do an ideation, uh, online with, with more people. Uh, so I would also add that number of people in an online ideation session, should be, you should be well-organized. If you have more people in a environment, for instance, using different digital rooms to put people in, to work together for a certain period, have a real, uh, process leader there to make sure that everyone comes in and comes back again. Uh, so there are all kinds of good, good digital means to help you do, uh, work online.

Could you then, uh, give an example where the hybrid work setting, um, has led to a successful team project?

Not particularly that I could say the hybrid work session led to a specific, did add or cost a specific, uh, end result, a specific unique end result. But, what I can't, uh, uh, neglect is that during Corona, we were pretty much able to do our work, uh, as we did on prem. Uh, but that, that again, uh, in that phase the, uh, innovation process wasn't really in play. It was really what we did or what the people did, before they came into this, uh, this team, they were able to do that still in the Corona time. But I'm pretty much convinced that, uh, uh, innovation process, if you would like to do those online in the first need to master those skills, what I said earlier, and then you can do them online. You can do that, uh, step by-step, uh, just like I said, when you're doing a first innovation project, they do, uh, for instance, the first refinement of that question, you can do that pretty good online, but to the creative process later on, uh, and do the research, uh, at the customer end, uh, these need to be done physically, and smaller parts, uh, smaller problems that you would like to ideate on. You can do that online and they're not too complex and where they're not too many people involved. I would say that that will be possible. Uh, but I think there's a pretty much, there's a high maturity required to do everything online, to do the majority online, so to speak.

And, uh, speaking about online tasks. Have you already had self-assessments in your team this? For instance, evaluate results of team creative problem-solving tasks or goals?

No, never did that. Never did that. Uh, and that's, that's a very good thing that that you touch upon here. Team evaluation we do that of course. We do that in the retrospectives. That's a form of evaluation of ourselves after each sprint. Um, but there's never been the subject of how to effectively work hybrid. It's never been a topic in our own reflections.

So we've almost come to an end of this interview, but I'd like to ask you two more questions if I may.

Okay, sure. Go ahead.

How do you expect the hybrid work setting to evolve within the next decade?

I think, uh, the red tear there would be, uh, to try to bring the team to a, uh, next stage, uh, being aware of what innovation is and what the processes are and what the steps you need to go through are, and then let them, uh, execute those things, those activities in real projects and learn from them and then let them, them improve themselves and actively coach upon the communication skills that are required to do that effectively. Uh, and yeah, perhaps when that, when that works, we do a, a, uh, I think that it will be a self-regulating approach that, uh, when we think certain activities, we, uh, we've mastered that we were already doing in the office, but then, uh, in small steps, we will start doing them online because we see them as, as a regular activities where we have experience in, you know, I think that's, that will be my, my takeaway. Uh, if you, if you are experienced and you don't need to think about how you do things, but you have internalized those, uh, being, being the process, mastering the process and mastering communication. And it doesn't really matter if you do it in the office or not. So, uh, so for the longer term, we, we try to, I will be working on together with the team. We'll be working on developing that skill more and more and more.

And concerning the technology, do you expect any, uh, improvements to be there within the next decade?

Yeah, that's a good question. Uh, teams is our, uh, is our most important tool and developments with which take, uh, which are done in teams. We embrace those, uh, like, like, uh, the thing you can, what you're using now, uh, the recording this, this call and, and analyze it, uh, these type of functions, they weren't there for a few months ago, and so absolutely that will be the involvement that will be, uh, uh, the further involvement. I think that the video will become better as well. So that the process of improving all these things and perhaps integrating, more functionality from the Miro boards into these two tools. So they are becoming more integrative. Uh, I think that will, uh, that will add now you need to switch between all kinds of tools and it's still a messy thing. So there will be more fluidity, in those, those, uh, digital meeting tools.

Well, Participant 6, many thanks for answering all of these questions. There were quite a bunch, so you hit the record. This interview lasted for one and a half our. So that's good. Thank you much about these rich insights Much appreciated for you time and interest in this interview. We have come an end of this interesting interview and, uh, thanks again for your participation and I wish you a great weekend.

Thank you.

Interview Transcription 7

Well, first of all, Participant 7, I genuinely want to thank you for doing this interview with me and doing this online and making time for this interview while having such a busy schedule. And as you agreed with the recording this will be solely used for the transcription of this interview. So I would like to begin with the first simple question.

Could you briefly introduce yourself and what your role in the companies is?

Yes, of course. So, thanks, Simon. So I am working at Company AC, and at Company AC, I've been here for nearly 11 years, and I've worked on a variety of things, though my current focus is on strategic growth for companies. Within that, I focus on new and emerging technology, and I get a chance to work with a lot of big technology companies that are in the tech space, people that make processors, make computers, make phones, though I also get a chance to work with companies across industries. So everywhere from energy companies to pharmaceutical companies, healthcare companies, all industries, financial services, retail, and I work with them on how do you use new and emerging technology to change the way that you work in your business.

How much of this work consists of teamwork-related tasks?

All the time. So I actually work at Company AC, we use something called Viva Insights from Microsoft that tracks our time, and according to it, I spend 97% of working hours in a meeting or conversation with another person. So that's how much work time we do with other people.

How many times per day do you work from home and how many per days do you work in the office or on-site?

Typically I go to the office once or twice a week and whenever I travel, I usually travel once or twice a month for two or three days. So I'd say I go into the office perhaps five to seven days a month, and then the rest of the month I work from home or remotely somewhere else.

Hybrid work is being considered as the next normal for multiple industries and sectors, especially after the pandemic. But how has this hybrid transition influenced your leading tasks?

So that's a good question. I think the biggest, there's big benefits and there's also some challenges in each way. So I think the big benefits of the ability to do hybrid work is it's given me more time to spend on personal things. So instead of having to go into, whether it's traveling or going into the office, no matter what, you have some commuting time, and so I can spend that commuting time doing something else that I enjoy. So I can do a workout, I can go on a walk. There's other things that you can do. I can make good food because I'm cooking at home. So that's a big benefit. That being said, it has changed the way that we work too. I have a lot of teams that I'm in charge of and it changes the way we interact with those teams. So that means that I have to take a little bit more time to train those around me, especially the ones who never got a chance to, they joined after we began to do this more hybrid work. So in a lot of those cases, those people have never really, I may have never met some of them in person ever before, and so you have to, it takes a little bit longer

to get comfortable with those team members, and then we also have to consider how best to build community. So one of the things that we did to start building this community, I typically, not this Friday, but next Friday. So every other Friday, I have something that I call the water cooler, and in the office, a lot of places have an area where you can go get water and talk to people and take a little break during your day, and those spaces allow you a chance to talk to others about whatever's on your mind, whatever it is that you want to speak about. And they're really good, especially for newer joiners in the company to meet people. So what we did is we started a water cooler, we called it, and we invite all of these people, especially the more junior ones to have a chance to ask whatever questions they want. So any question is fair game. They can ask us about advice for work. They can ask us advice for things that they're doing, and it's just, it's proved to be a really good opportunity for us to engage those who are newer and wanting to learn more about the company. So that is something I have typically done as a leader to increase the team cohesion, to be open and to answer all their questions, especially while the younger generation or the people that just came in new, you know, as they can be quite maybe uncertain sometimes.

So is there anything else besides that, that you have done to increase the team cohesion in this hybrid work setting?

There are definitely other things. I think the one I just mentioned, that's one of the big ones. I know about another thing that we do is we like to start the day with a call where we can either have video or I showed you a little earlier, sometimes we also have these like virtual avatars that show up, but basically some kind of a physical representation of us, and we interact with others in that way and doing those specific calls and having those conversations has been very good because what it allows us to do, it allows us to have open dialogue and discussion with these team members. It allows them to ask what's going on, and one of the biggest gaps I found in hybrid work is that people go alone on their own. And so they don't have a chance to necessarily ask questions until they work pretty far on something, and so what happens sometimes is that they work really hard, but then what they worked on isn't exactly what we wanted them to do, right. So it's been really good giving them a chance to ask the questions in the beginning. So that way, before they work really hard on something and maybe come back with something that we didn't need, we give them a chance to ask any questions they want so that they could come back with what we need, right. And I think that's a very important skill as a leader. You have to practice because too often we don't, and when we don't, then people, they miss out. I mean, they, they, and it's, it's not because we don't want to teach them or coach them. It's just sometimes we get busy and we don't have the time to do so.

You said that you're like working two times per week in the office. So, and the rest of the days you're working from home. Do you have the feeling that this kind of hybrid work ratio is the correct ratio to let those new employees engage in the company and feel psychologically safe and increase the team's cohesion?

I think it would be really helpful. I do also want to say that most of my team that I work with day to day, the vast majority of them are also not in the same city as me. So the vast majority are in other cities. So my team today is in more than 10 different cities around both Europe and some of my team members are in other countries, and with a team being that many different countries, you

can only imagine how challenging that makes it for everybody to stay connected, right? So it's one where even if I did go to the office, sometimes it actually makes it so that I'm less accessible to some people while I may be more accessible to others. So I typically based on that, that kind of a team structure, I try to come into my local office here once a week and meet with the people I'm working with once a week, and then the others who I, who I'm going to connect with, I meet with them in a different cadence because, because they're in a different city. So instead of travelling to each different city every week, I've actually found that it's, helped me a lot to do some of this remote work because I can connect more with some of my team members.

So how has your leadership style changed in this hybrid work setting that just described?

I think it actually has. So you know, I think the best way to describe it is maybe like, it's a, there's a relational component that was really important for me that, that changed. I used to, you know, used to just talk about work and we'd interact with each other on the things we needed to do from work and focus on that and then move on with our lives. Now our lives are at work. So what I mean by that is that a lot of people, they do their, their calls, right? They're calling you from their home, and so, you know, their, their kids run in the back of the call, they, they have things that come up, they, they have like somebody coming to work on the house. There's a lot of things that happen, and what, what ends up happening in that regard is that we sometimes struggle, and in the past, in the business world, you would compartmentalize like this is my work stuff and this is my personal stuff and we would keep them separate. Now with the way that, that things are going and the kinds of conversations we have, we kind of start mixing the lines on those, and so I found that it's very important to actually listen and see what's happening in the lives of, of my team. Because if you can see what happens in the lives of your team it really does help you to best understand how both to connect with those people on your team, but then also like they perform better when they both know that you care and when you're addressing the challenges that they actually face. Too often we address what we know from a work perspective, but work gets impacted by a lot of things that are not work. So that has been a dramatic change in my, my approach to work with these folks. And that is an approach that works, but sometimes needs some time.

Okay, you addressed what kind of elements of the hybrid work culture works in your team. Which ones does not work well in a hybrid work setting?

I think there's a few. So, so one, I do think that the people I still have maybe connected with the best who really understand me are also those who may have met me in person at one point in time. There is a lot that you learn about a person based on an interaction with them, especially I would, I would say it's like a meal. So just being able to have a meal with some people you work with, you get to learn a lot about them from that, that constant, like, it's just another level of, of interaction that you can have, which is in my view, it's very healthy and it, it allows you to truly understand like who they are and what they're, what they're going through in life, and that's one, that's why I don't think everyone, I don't think everyone always like fully both comprehends, but also appreciates because it is something that is, it is a little bit unique and, and it's something that I believe is very important, but it is something that's not fully appreciated.

Okay, so you mentioned the meal. That's a good thing to do together as a team. What types of other events have you found to be successful to maintain this employee engagement in the hybrid setting?

What other events? Uhm, that's a very good question. So this is where you, we've sometimes struggled. So in terms of how do you come up with good replacements and, and not, not saying that it's impossible, but saying that it is sometimes challenging because there are, it's hard to replicate certain things, and that's where we began to actually explore using new technology. That's where we started pulling into this virtual reality, augmented reality, things like that. Like, how can we recreate a team environments and activities? So sometimes we've actually done virtual with like more of a video experience, but we've done some virtual collaboration in like maybe a virtual escape room or something like that. We've done those before. We've come up with different kinds of, and the way I can describe it, it's like it's team bonding activities over shared experiences, though I would say that the most effective of those that I've really enjoyed have to do with they start digging into something a little different, and what I mean a little different is that we start working more in regards to building, this is what we're doing with these virtual reality environments, like building, they're basically like video games, like building games where people can interact and work through really important things, and so what ends up happening is we get a chance to truly both connect with and then learn more about each other through shared experiences that we build, and so building out these virtual environments and games has been, it's been an interesting experiment, but it's kind of cool to see the outcomes and outputs that we've brought from it. So these VR games, they can be a cool tool to interact with your fellow team members, and to increase that team cohesion.

Speaking about this VR technology, because you work at a very innovative company. What about, for instance regarding the team's creative problem-solving. This has three stages and the first one is problem identification. How does that typically go in your team in a hybrid work setting or with that VR technology?

That is a very good question. Because that's one where I think some of those skill sets are the hardest for people to learn without what I would call is more of an apprenticeship model. Because if you think about that, the creative problem-solving, one of the best ways of doing it is in partnership with others. So you solve a problem together, you go through a challenge together, right? All of this is a together style moment, and so too often what I would say happens now in the virtual world is you do a lot more individual work, and individual work happens pretty well because people don't distract you, you can focus on it. And I noticed that you experienced an increase in my work productivity, but the minute you have more of a collaborative environment, this comes down to the types of interactions people have, right? And so that's where we found like people interact better if they're on video together or they do activities. But that's where we've really been pushing some of this virtual, you know, the more video game style virtual collaboration at work, doing problem solving together. Because even though like it doesn't necessarily make the problems like you do a better job or they're easier, it does, and we found it does lead to a relatively better impact in terms of the outcomes you're getting. Because your team learns how to work together in those experiences, and they can take what they've learned into the rest of their work.

Is there anything perhaps that can be improved in this stage in the hybrid work setting?

Oh, absolutely. I mean, I think one of the challenges is that not everyone, even though let's say the teams that I'm working with are really trying to use this new technology, a lot aren't, and so you have a growing divide in companies between half of the, I'll say half of the environment, which is focused on in these work, these companies where they're focused on what it is that they can do in an immediate terms. Like we need our people back in the office now because we need to fix these things that way, and then they have the other part of their their employee base, which is working from home and doesn't turn on their video, and like and then you start having resentment between the two, right. You have one side that resents the other because they're going to force me to go back to the office ,and then you have the other side of a company which resents others because like I have to drive to work every day and these people are sitting at home, right. So you end up with you end up with a divided work culture in these companies, and I think that is a really that is a challenge that's growing, that companies are starting to have to deal with

How have you been dealing with this effectively, as a senior manager yourself so far?

That's a really good question. I mean, I think for me, I personally take so one is that water cooler I mentioned, but also I take time with the individuals on my team and I send them personalized messages. I ask about them. I get them to set up time that we can speak together. But it's tough because you need to put in more effort than we in a way you have to put in a little bit more effort than I used to because you have to put extra effort in order to truly see some of those similar results, and that's something I would argue, not every this is where a bigger gap starts happening in the working world, because you start getting a bigger divide between the haves and have nots, and what I mean by have and have nots is it's the ones who have true mentorship and guidance and support versus those who don't, and that's a really I don't think people address it enough in the working world, but I think it makes a huge difference in success, and some people who get if you get the guidance and the mentorship and the advice, you have more success than those who don't.

Indeed. We've discussed the problem identification stage, so now we go to the second stage, which is idea generation. How is that one typically done in a hybrid work setting in your team with VR technology?

That's a very good question. So I think this is a few pieces. So one you have. The VR technology is attractive to people in this generation, but I think that one of the biggest things that people don't realize about this generation is they're really hungry for personalized interaction and someone to really ask them how they are and to challenge them to do something too often. We have this, I would say it's a false perspective that the new generation coming in is just they just want someone to hand some hand them things and they don't want to work hard and all this. Well, I haven't really found that's the case. I find, though, that they're more hesitant to work hard on something if they don't feel they understand the value.

So what happens is we have to take a little bit extra time up front to explain to them this is why you're doing the work. This is the meaning behind the work you're doing, and if you do that, they'll be more willing to do it. But they're going to be less likely to just do something because someone

says, yes, you should do it. And I feel like this is something that is clearly something that can improve the idea generation within the team.

And so after this stage, you have the third stage, which is idea selection and evaluation, also known as idea championing, and how does this typically go in your team in the hybrid work setting?

It's in the hybrid work setting. I mean, so what ends up happening is I set up I set up a lot of like teams meetings and basically like I set up platforms, you know, use the technology and platform, and I encourage people and ask them questions. So I kind of have to push them a little bit more. But by pushing them, you end up seeing some really cool results. So you just need to give them a little bit of a push, and with that little bit of a push, they start to respond, I would argue, in a fairly good way. But people need a little push, and that's something that folks don't always understand is like it's not a bad thing. It's actually a really good thing to have somebody push you somewhat, and some people respond pretty they're pretty cautious about it, but I would argue it's a really important piece of just it's a different piece of an approach, and I think it's a very important piece of an approach.

So the push that is something that that can help the idea selection and evaluation. What about other pushes, maybe in more kind of the trend of workshops, like how to identify the problem quickly or how to come up with a strategy or how to generate ideas quickly and evaluate them and select them. Are there any workshops offered in this team creative problem process that we touched upon at your company?

That's a good question. So we do have a lot, we do a lot of virtual ones, but this is where that's where some of that virtual training. So we actually onboard all of our employees using this virtual technology. So right now we're doing it. We were doing it with a tool called Altspace. Now we're using Microsoft Mesh, but every one of our employees is trained using those tools, and so what that means is that hundreds of thousands of people, technically 14000 every month, go through this this approach, and so as part of that, they're putting this virtual world, and in the virtual world, they're asked to solve a problem together with a team. So in our case, we actually have a company that's a it's a coffee company, and so it's called Global Coffee. We help them come up with ways to help this company, Global Coffee, to expand their business and be more successful, and basically, we give them practice on how to how it's like to be a good consultant by having them play a video game with other people, and so you set them up with teams of 16. They divide the exercises together. You can't actually like complete it yourself. You have to do it as a team, and so it helps them encourage teamwork. Sometimes the teams are coming from similar geographies. A lot of times we actually enjoy putting teams from people from different countries. So like we have someone from Europe, someone from Asia, someone from the U.S. and they get a chance to learn about as they go through each of the sections, what it is that makes my company like Company AC, what it makes us a successful company, what are our values? They go through little exercises like what are our core values? What are those core values mean? What does that mean for me and my work? How do I how do I live those core values? Like how do I respect individuals? How do I make sure I'm ethical with my work? Make sure I don't accept bribes, you know, like a lot of these kinds of things that are there, and it's very important because what it does is it encourages this culture that people both collaborate with each other, but then they also they just have an ability to learn from other people in other situations, and so that's been a big challenge for us, because as you can imagine, we used to send everybody at the company to a training centre. There are two. There is one in Europe and one in the United States. Actually, I think there's one in Asia, too. So there's three training centres, and we used to send them to these training centres and they had a great experience. They learned a lot. But when the pandemic hit and you can't exactly send everybody in to do a training, that became pretty hard. And so when that became pretty hard, the question is, well, what will we do now? Right. How will we how will we approach this now? And that's one of those things that, yeah, we have to work on solving ourselves, and that's and we're still trying to figure it out. It's not fully we haven't fully figured it out, but we found that this could be a really great solution and a great potential solution for us.

You mentioned that if someone is in the office doing one of those stages or some is working from home. They feel kind of neglected, at least a person that is working from home. So the same is for people that, for instance, they well, some they have audio plus video turned on. The others only have audio on and the video turned off. This also influences this kind of team creative problem solving process. How do you typically deal as a manager with these kind of issues that when people don't turn their cameras on?

Yeah. It's a real problem, and I would say one of the challenges we have is you can't you can't force people to turn their cameras on. So it's not one that you can resolve easily, and that's a challenge because like we know that it improves collaboration. We know it will improve the way that they feel engaged. But you can't force them to do it, right? So, then what do we do? That's your question, right? What do I do about it as a manager, right? Well, there are these avatars and others that I showed you before this interview. So we're trying to work with Microsoft and other companies like how do we come up with ways that within Microsoft teams we have these avatars so they should be coming out more broadly to most people in about two months, and the exciting part about that kind of technology and tool is it's like how can you use technology to at least come up with the intermediate. So instead of pushing someone to maybe show up on camera because maybe they had a bad hair day or whatever else like can you get them to at least at least show up right in an avatar that kind of tracks some of your movements and gestures and they can interact, which is maybe not the same as having a video, but it's a whole lot better than having nothing, and that's one of those things that we've been learning, and it's not obviously it's not a one size fits all. It doesn't solve all the problems. But as you probably noticed in the beginning, like at least you feel like you're interacting with something and it's better than kind of interacting with a blank screen, right. So that's been an important that's one of those areas that we've felt that's important to invest in, because frankly, I think if we don't like it does, it does make it harder. I'm not saying that all the people who use that kind of technology all of a sudden will be super engaged compared to today, but I am saying that it will at least give them a chance where we can somewhat level a little bit of the playing fields and give them more of an opportunity to collaborate with others.

Okay, and coming back to all of those three stages of team creative problem solving, which one has been the most affected by the shift to the hybrid work setting?

That's a very good question. I mean, I think. A big part would be, uhm, like truly getting everyone to feel that they're engaged, and when I say that, what I mean is that you get all the people to open up and open up what's on their mind too ,uhm too often it's easy on these calls to have someone I mean, like myself, you can tell from kind of my attitude and perspective and how I talk, like if there's a silence on a call, I will speak, right? But if you're in person with a group in a room, uhm there's just these social norms where you kind of you give more people a chance to talk. But if you're on a virtual call, there are times it does make it easier, but there's a lot of times it makes it harder, right? So for those who do have challenges speaking up, sometimes they have been able to do a better job, but other times they don't, and so I think that's something that we need to work on addressing. In part, my hope is with the virtual world and the avatars and others, it makes it a little bit easier for introverts, especially in like those who may may not want to open up on a call to then open up, and what's exciting about that, I would argue, is that. We've actually seen that in other places, too, like you, we've seen areas where those who are more introverted really enjoy being part of virtual worlds and video games, and activities and things like that. So bringing that to the working world is going to be really important.

But do you think the problem identification is mostly affected with the hybrid work setting and the technology or is the idea generation phase or is it the idea selection and evaluation phase that has been the most affected with hybrid working and technology?

I would say more around the creative side, I think whenever people want to be creative and think outside the box, that that's when they have the most hesitation to speak up.

Okay, that's the idea generation stage. Here you actually create and initiate those ideas based on the problem.

Because if you think about it, right, if they don't have if they don't feel comfortable sharing, then they're not you won't get new ideas, and so people are comfortable sharing what's known. Right, and what people do, people are not comfortable sharing what is not known, and what people are not doing.

Those social processes, that you just described, if people are not comfortable, do they have different effects based on a specific stage of the team creative problem solving effort?

That's a good question. So I think it does. I think there is, and that's one of those challenges we've actually seen. It does differ by like person to person. So person to person, you see some differences in their experience, and that's something that's been very apparent in our in our research and our work in this space.

You also mentioned like the VR technology. Are there any other tools that you typically use in the hybrid work setting, for instance, like the cameras or what else are you using besides the VR and perhaps the Miro board or the Scrum or Agile?

That's a good question. So, I mean, there are some cool tools out there, like we definitely use things like Mural, which if you see Mural or something like that, where you can go and answer questions as a team. We've definitely used the Mural boards. We've used that like tools like that. It does help our people to really interact and collaborate in a unique way, but there are some tools out there that we haven't used enough of, and I would argue like that that's where maybe some of these virtual reality tools and others come in, because, again, what typically ends up happening is the ones who are the most engaged with those virtual tools and sometimes being the ones who are the most engaged and on a call or in a conversation. So the ones who are already super engaged are going to continue to be super engaged. And the ones who are not engaging, it's still a struggle to sometimes get them to engage, right. And that's but that's a real I mean, that's a real challenge that I would argue most companies are actually facing in this space.

So the other tools that aren't used, it's difficult to you said that to engage those employees to use these kind of digital applications, or is it more that employees don't know how to use those kind of digital tools and applications?

I think not knowing how is a piece of it, but I think honestly, I'll use this example. The person is going to be less likely to turn on their video during a conversation is also going to be the same person who's less likely to interact and put in a lot of content in a Mural. ,and that's a true challenge that the people understand like, oh, but I added in the tech. Now, how can these people are engaging? So that's where it's important to do some kinds of like change management and things like that. Too often companies actually don't. I would argue they don't spend enough money on these types of things because in their view, what they what they kind of consider as part of their view is, oh, you know what? Like the change management stuff is just change management stuff. We don't need to necessarily do that, and then they don't spend enough money on actually helping people adopt the new process and explaining what the benefit is to them, and that influences the team development as well.

During the team development process, you have also a phase called storming that's such as conflicts, chaos or confrontations often arise. Did this happen also in your team in the hybrid work setting?

That's a good question I do think that some of the storming happens, I do think one of the challenges in a hybrid setting is that you actually end up with a little more passive aggressiveness. I think if that's a way of sharing it, because what ends up happening is that people are more likely they're more likely to open up and share things with those in their smaller circle. And because they can kind of hide behind not being, you know, not seeing the people who they're passive aggressive with, it sometimes actually gets a little bit worse. And that's something I don't know how much people have looked into, but I feel like it's kind of it it's ripe for small like tribalism and small packets of people expressing their own challenges, but not really not considering the challenges of others at the same time.

What have what have you done to tackle this problem as a senior manager?

As more senior person. I think I push and so part of it is I push on the people to find out what's the issue, and part of it is I don't really tolerate some of that kind of behaviour on my team. So I purposely look for people. So if I'm going to put someone on my team and work with them, I want to find people who truly who like appreciate others. And I just don't appreciate that kind of action and interaction. So if I find somebody who's on my team or someone who's on one of my teams who's really acting that way and is uuh very, uuh, yeah, you know what I'm kind of describing, like just very tough to work with and others, and causing like wanting to pick a fight, especially these passive aggressive arguments. I try not to put them on my teams.

This situation that you just described, how this can influence the trust or the psychological safety between, well, maybe you and your colleagues? For instance, which can then obviously affect the team creative problem solving process negatively. And how then has the support from your team members changed when transitioning into a hybrid work setting? So now more from the team members side instead of your side.

That's a really good question. I mean, I think for my team members, it's made it sometimes harder for them, so because it's harder for them to reach out, I would say. So if they deal with a tough situation or something challenging, they're less likely to know how to respond just because it's not as easy as it used to be just to pull me aside and ask me questions. Now they have to like go and set up a meeting, this extra there's some extra pressure on them. And I and I think it makes it harder for them to speak up at times. In a way, it makes it easier to speak up at times for some people, but for others, it does make it harder. And that's something that I don't think people have done a good job addressing in the in the working world yet of like, how do we address this? Because it is a it is a very real challenge that people have, and so it's important to address this, as you said.

But did your team do your team also have like self assessment of these team creative problem solving goals and tasks?

We do have some of it. So some of our team gets a chance to go through it. There are tools out there that they get to use and they use to share. There's like different kinds of strengths finders or different kinds of perspectives they can have. We do a lot of a lot of scoring that we give people to make like to see how they're doing in comparison to others. But this is, again, where some of the new tech is going to come in, because I think it gives them a chance also to just share in a unique way with other people who are around them.

So you would say with the pluses and the minus and the strengths or the weaknesses, this is typically how it's evaluated in a hybrid setting?

Yeah, exactly.

As you mentioned, you work three days per week from home and two days per week onsite. But what is missing when you're sitting in your home office?

People to laugh and joke with sometimes people to go and grab like a quick lunch with their conversation, you know, that what I would call is the random interaction points that happen. So if like I'm in an office and I'm expecting on a given day, if you work from home, you expect to see

certain people and then you see those people you expect to see. You interact with the people you expect to interact with. You talk to the people you expect to talk to, but the gap, I would argue, is that we don't have as many random interactions because you're more curated throughout your day. While you're in the office, you walk through at an event or in a building or a place and you see people that you didn't plan to meet with. Whenever you're at home, you don't just randomly join other teams, calls or others just because you can't do it that way. But you can have random interaction points in a physical space much more so than in that. So that's why the alternative is we're trying to set up some of these digital spaces for people so they have interaction points and stuff.

But as you can imagine, that's a that's a big gap that we've noticed, and so is there anything from the organization's side that can improve your working-from home experience?

I think they sometimes have done like get to know you activities, so like they do events where they have people do random networking. We sometimes have brought in companies that have set up like a, you know, here's 15 minutes with this person, talk to this person 15 minutes, like different kinds of discussions that way. So we've done some of those at times. Yeah, I mean, there's definitely things that they've involved with and they've tried out. But I do think that's an area that we still haven't. We haven't found a perfect solution yet.

On the other side, is there anything that could be improved in the in-office settings?

There is, so I think in the in-office side, making people feel comfortable with those random interactions again, because a lot of these, especially the more junior people, they haven't really seen these random interactions yet. So for them, it's a net new experience, and so they're not used to it, and so because they're not used to it, they don't really know how to react or respond or what to say. So, yeah, I think that's a big one.

You just made an interesting point, it's those younger employees. So you have the younger employees and the more experienced ones. Do you also basically divide your teams in a specific way based upon that?

That's a very good point. We sometimes I mean, we do divide our teams between the different levels, but it's tough because what happens is it's not I would argue this challenge is less to do with how senior someone is, but how long they've been at the company, and that's what's challenging, because you can have a team of people who are from a variety of different levels, but they've all only been at Company AC for two years, let's say. Right. And or you can have somebody who's only been here for like three or four years, but knows more about the company because they've been here for three or four years versus someone who's been here for six months and is more senior. So I do think that is a that's something we don't necessarily, uhm, we don't take into account as much, which we should. The time at the company

You've discussed now the team division, but what about the task division within the team?

Uh, that's a good question, so like the task division, this is what's interesting, so it's key is like thinking about in order to truly do good tasks, task splits within a team, you have to actually understand your team, and this is one that I feel like people don't necessarily take enough time to do because we're too busy worrying about what we have to accomplish or, you know, get done or something else. But we don't just ask people like and understand what is it that you want to do? Like, what is it that you're passionate about? Where are your strengths? Where are your weaknesses? Like it's asking a simple question like, why are you even at Company AC? Why did you want to join Company AC? What is it that that makes you like really happy? And I think you have to learn about those to truly do good task splits because otherwise you don't have good task splits.

Could you then, for instance, give an example where the hybrid work setting has led to a successful team project?

Yeah, so I think an example of something really successful, I did a project last year, and where we worked across the globe to develop this solution that we have with this virtual collaboration and onboarding and training and all this that was built on using these metaverse platforms, and so I don't think we would have been successful doing that if we didn't have a hybrid work environment, because the hybrid work environment has allowed us to truly work together as a team and share information with people from all around the globe in a very effective and quick way, where in the past, I can only imagine how many flights and conversations we would have to do.

Could you also give an example of an unsuccessful experience in a hybrid team project?

I do have some. I mean, I think a big part is like the output. Often when the output isn't that good. This was often caused by a miscommunication within the team. So what happens is that people don't always, I mean, they basically don't have a lot of communication. They don't have, I mean, I'm trying to think of the best way to describe it to you, it's lost productivity from somebody who works really hard, but doesn't necessarily end up building the right thing in the end. So you have people who are super gung-ho about doing something, but because we have lost communication or they don't keep up, like they get the initial direction and then they move on and then they don't ask for updates because they go, you, yeah, you end up with some challenges.

So if I understand that correctly, because of those communication issues in the hybrid work setting or the misunderstandings, then what happens is that people that are actually being, that want to be creative and productive for the team are not creative and productive because they misunderstood the assignment, whatever that's on an individual basis or team basis, correct?

Yeah, yeah, it is. Because it is, it's like, it's less, I think there's something we have to differentiate and I hope like from the science we can. There's a difference of productivity versus impact, and so what happens is you can have people who are very productive, but what they produce isn't very helpful versus you can have someone who's not as productive, but what they produce is extremely helpful, right? So there's like a relevance versus productivity gap. And I think that's something that we really need to look into because too often in a virtual and hybrid environment, people are very productive, but they don't produce useful things, and creativity is embedded within productivity.

Where it actually goes wrong, is in the idea generation part, they have some idea in their mind, they execute it, but it's not the correct one.

We have almost finished this interview, but I would like to ask you two more questions if I may.

Yeah, go for it.

So overall, we discussed the hybrid work setting and creativity and productivity, but what kind of implementations do you suggest for an effective hybrid work environment?

That's a good question. So I think the way I can suggest the creativity and productivity, first, you have to start by actually understanding and speaking with your teams and understanding what makes them passionate and what they want to accomplish. I think the next thing you have to do is create ways that people can truly share and open up with each other along the way so that it's less you have a good inspiration up front, but then you produce something that's off later on. So how do you have open forums that people feel comfortable sharing? I also think you need to create these environments where people can have collaborative journeys. So whether you send them in person to spend a few days together, or you put them into one of these video games, you have them interact with each other, you need something that you can do to bring people together.

You have mentioned that Company AC is highly developed in technology and VR landscape, mostly further than other companies. But how do you expect the hybrid work setting to further evolve in the next decade within the company?

I think it's going to evolve a lot, and a big part is going to be the technology that's coming is going to help. The technology is going to make it simpler to use, and I think the biggest thing is just people understanding what use cases to bring, right? So understanding that it's less that it's there for being there, but can you do overlays of data? Can you come up with ways to have people practice building something in a virtual space versus like right now, they just maybe try out a space or go into something and they're just experimenting. But I would argue in a couple of years, we'll have a pretty good idea of what works and what doesn't, and we'll have ways to show more examples of how you can use things there. Very much like how whenever, if you remember back when the first smartphone came out, and you were starting with your original iPhone and others, didn't do a whole lot. I mean, I remember it wasn't until a couple of generations later that they actually added in video capabilities. So, I mean, it's kind of amazing what you can do now, but back then you couldn't do a whole lot, and I think we're in a similar space now.

Thanks. That were all my questions. Thank you for answering them so accurately, and many thanks for answering all of those questions and of your time, obviously. It's much appreciated. We've come to an end of this interview and I hope you have enjoyed it. Have a good day.

Yeah, absolutely. Thank you. Same to you!

Interview Transcription 8

Participant 8, first of all thank you for participating in this interview, as I have already let you know via mail and phone the recording of this interview will only be used for transcription and will not be shared with any third parties.

So let's start. First of all, I would like to ask you if you can simply and briefly introduce yourself?

Yes. So I am Participant 8. I work full time in the office. I work for Company GS. It is a company that makes magnetic systems. I work 40 hours a week there. I just moved to another house. I am 29 years old.

What is your current position at your company and what is your responsibility?

Yes, my primary task is processing orders that we receive from engineering. I receive a drawing package containing all the parts that are necessary to make an end product for the customer. Then I divide the parts per department which are needed to make the sub-assemblies. I also do a lot of small things, such as monitoring parts that must arrive on time. I also take care of the resources in our company. See to it that all the works goes smoothly and orders are delivered on time.

Okay and how much of this work consists of teamwork related tasks?

I write down all the work I do in an email and address it to myself and my colleagues in the CC. So if I am not at the company and someone has questions, my colleagues can check their mail and look for the answers. In addition, we simply have to coordinate together to generate the best working method . But real teamwork , yes uhm, everyone is assigned to different tasks and uh yes, you try to work as much as possible within your own range of tasks and process your own orders. So on the one hand , you work independently, but on the other hand you have to share all the information you have with each other and we do that by keeping files in Microsoft Teams. These files are then often discussed in Microsoft Teams.

As you know, this interview is mainly about creatively solving tasks in teams. This consists of 3 phases. The first is for example the problem identification phase, so then there is something, for example there is something wrong in an order or just within your team you can describe how does this process works?

It occurs through different several ways actually. If we receive a problem from our production. Which means that it has actually been noticed too far along then we use a problem solving list to solve the problem. In the process or when parts that needs to be delivered are too late so we can not finish our products then I need to reschedule the work and inform others that the product will be finished at a later date.

Is there anything that can be improved within the team at this stage?

Yes, I think it is a bit of your own initiative to follow up on orders, there is no real structure. This should be really improve and implemented better in the system. Now it depending on the person

and he can decide like oh, I'm going to look at it now or it doesn't matter for now I look at it at the end of the day, there are no safety nets in our system. I think there is still a lot of room for improvement in our system. So you will not receive any further notification and then it's too late, then we really have to figure it out ourselves.

Okay so about this problem phase? Can you talk about what went wrong in your team and also what can you and your team do so the problem does not appear again because each time checking your system cost a lot of time. What can you adapt on your system?

We now also have various actions open from within the organization, for example to integrate Microsoft Excel lists with possible solutions about the system in our ERP systems. So that's the strategy behind this problem phase.

Okay and then we come to the second phase, the idea generation. Then you generate ideas on the problem. How does this typically apply in the office environment in your team?

As soon as something arises, we discuss it with each other. We have a weekly meeting, where we come together in which we can indicate problems that we encounter. We will discuss these problems with each and conduct a brainstorm session and generate idea's to solve these problems so that they will not occur again in the future. We also generate idea's on being more proactive in order to notice possible problems up front before they really start to be a problem.

Yes, and as far as this idea generation is concerned within your team. Is there anything that can be improved in the team at this stage?

Yes, but I think that is another problem. We currently have undercapacity in our department, so we cannot always use the idea's that we have generated to improve the work process. We need all our time for the primary process because there is just too much work. So we're not working on that right now. PO & A is directed to start planning in a different way, so that we will gain more time to invest in other side processes as well. Maybe this helps a little but then again we have to find out where the pitfalls are and by doing this we are generating more work for ourselves. Implementing this different approach of work is consuming a lot of time as well as to adjust our ERP system.

I assume that you will also have these idea discussions with your managers or executives. So these ideas are generated, but are not set in motion yet. So thinking up and creating ideas is also called creativity and executing those ideas is called innovation. So when ideas are generated, you need to select them and evaluate them with your colleagues. Could you describe how this phase goes in the team?

We're not really that far at the moment. To some extent we have had sessions with our management. Many ideas have been thought out and actually prepared for implementation. As I just indicated, this is an issue to solve on the long term and as we have insufficient labor workforce to start on that now and solve this.

Why?

We are too busy with are primary work processes to keep them under control before we can subsequently implement further improvements. We have the plan to innovate and everyone has an idea and it is often a bit too individualistic within our team. This problem needs to be resolved. People will still carry out their own idea, which isn't good we should discuss this as a team and select and evaluate it in a collaborative way.

This there a particular method to select the ideas where. Or do you simply start with number 1 and if that cannot be executed you go to number 2 and then 3?

No, it is just very well controlled by someone who knows the ERP system by heart. He also programs something in the system, so that those tasks are performed automatically. This guy is actually good at solving problems by programming and putting codes into the system. If we have generated ideas during a brainstorm session we select the best ones. Then we make a demo to see if the ideas are going to work. If not we start to make new ideas and make demo's again. This takes as long until we have a good working solution. It's iterative. Then the programmer is going to implement this solution straight away into the system. If we evaluate the improvement we mostly find out that they work as it turns out we indeed figured it out. If there are still minor things we try to figure them out and solve those by ourselves.

Does this good ERP programmer also gives his view on the improvements? Is he a part of your team?

Yes, He was part of the team, but he is needed full-time for programming and figuring out how to optimally use the system in an efficient way. But he knows our work inside-out, because he has 20 years of experience. He is more directly with us in the team as we are dependent on him in a lot of ways, so to speak. But he also thinks companywide, not only for the team I am working in. He also works with other teams in the company.

Which of the 3 phases is the best phase in your team? 1. Problem identification, idea generation or idea selection and evaluation.

I think phase 2 is our strongest phase and then phase 3. We are less strong in that ,because we have often not the time to execute it. As I mentioned before. We have understaffed capacity and therefore we cannot execute these processes properly. So the ideas are good. The selection and evaluation are okay, but the execution of those ideas are a main concern.

So executing is really a problem within the team?

Yes.

So phase 1, is the one that goes the least well?

Yes, the first step, say find the problems, right? Sometimes we do not see the problems in our company. For example, if there are gears with too much play and this is not discovered during work preparation or during production, we will only find out when the customer points it out to us.

Could you elaborate on this more specifically why this is insufficient?

Well, it is more that we start the problem identification too late because our machines are already working in the factory of the customer. We see the problem too late. So we are behind. We would like to identify the problem earlier. Because of this we loose a lot of time. That's why we are always busy with our primary work process. So we only have time for small changes and not the big ones.

So you guys are good at small changes. In other words, innovations within the team and to solve them, but if they are major radical changes or innovations, those are somehow very difficult or impossible to execute?

Yes, big radical changes are quickly postponed. Because yes, perhaps because of uncertainty or because of the risk it entails. We try to change this within the company at the moment. The director's position has been split into three parts now and more workers have been hired, so the changes will be carried out sooner or later. But we still need more guidance here from the management I think, in order to carry out those big radical changes and innovations. This again has to do with the limited capacity of skilled workers.

Only to perform or also to invent it?

Because there is little capacity to implement solutions I also the main reason why we not perform optimally. To invent is not the real problem, to execute it is more difficult for us.

So you discuss and try to execute these 3 phases at the office. Do you use digital technology for this?

Not really, we use some common applications as email and Microsoft Teams to save our notes in files. We try to identify the problem. Do a brainstorm so generating idea's. Generate ideas in a brainstorm, write them down in Microsoft Word or other Office tools, choose the best ideas even evaluate the idea's but we only implement the quick idea's and not the time consuming ones. So let say the easy ones. The other ideas will be saved and perhaps used later or for the long term, but to be honest, we often forget them because we do not keep track of them with the correct digital tools, and again there is no time implement those ideas or solutions. So we are quick in these 3 phases because we meet physically, but slow in the execution phase. Perhaps we need better digital tools for these 3 phases.

How are the social processes influenced within these 3 phases by the office setting?

Let's see, I can interpret those questions in several ways, do you mean whether we can get along well in a social way, that there is no friction in the characters of people or? Do you really mean in the way of social in the sense of that you have everyone present at the office?

I mean the first one. Every team sometimes enters a phase where it leads to confrontations or chaos, let's say, or intense discussions and how to solve these problems in those 3 phases we just discussed.

Well, if there is friction we usually take a step back. We say to each other let us talk about it later. So at that moment there really is no escalation. But frustration yes.

So each one of us needs to let this frustration go or slide a bit and after a while we start to talk about it again. It costs time and there is no coaching on this social process. Lucky for us we all get along really well so there is never an escalation. What gives some tensions though is that sometimes we have some stress because we are too short in numbers of staff. So we are looking for a new colleague in our team.

So you function well as a team?

Yes and no. If it's not too busy yes, but when its very busy some irritations pop up and if I discuss it with my team leader he is too busy as well. Communication get stuck sometimes. Therefore, too much workload gives stress. If we talk about it a bit later then its okay again and we go on with are daily job. So it goes up and down sometimes. It's like a pendulum.

After you have done these three phases that we discussed are there any self-evaluations within the team, so what could have been done better?

No, unfortunately we do not take the time to look back. So we do no take into account the lessons learned from the past in those three stages.

So if I understand you correctly this is something what you would like to have in your team?

Yes, but I think this a difficult one because we are always busy and just do not take the time for this. It does not take away the fact that it would be good to do it. We just don't have that luxury right now.

What do you think about the typical skills that team leaders should have so you can improve yourself?

He needs to give me confidence, not only critic but also positive feedback when I have done my work well. Threating everyone the same in a honest way. Not only steering on the result, but also make me better as well as my fellow colleagues so I can grow and improve.

Is there anything that can still be done in the social environment around improve the working environment of your team at the office?

Yes, as in your last question my team leader needs to be a better coach in this. Sometimes it seems that only the work result counts and not the people themselves. Also when we have chosen the created ideas on how to solve the problems and we also evaluate them, he often generate his own ideas and implements the solution immediately without discussing it as a team. If this happens my team feels very uncomfortable.

Yes, so what you actually say is, this is what my team said, this one idea for we are going to implement to solve this particular problem, but then he still does somehow his own will?

Yes, exactly.

What are other things, on the other hand, for example, some kind of activities to improve or maintain the team's psychological safety and cohesion?

Yes, once a year we have a team building day. On this day we do different assignments that we have to solve as a team. We have to solve these assignments in a creative way and these are not assignments related to our work, but more fun activities. We have a lot of fun by doing this and it generates energy in me. It also gives me a better social bond with my colleagues. This resulted in that I sometimes have a drink with my colleagues or another fun activity after work, such as bowling.

Is there a generation gap in your team and if so how do you handle this?

This does not apply to us. Our teamleader is 35 . I am 29 and my other colleague is 27. So there is actually no generation gap.

So you have a 5 day work week at the office, what do you exactly enjoy on working at the office?

Yes one answer, the short communication lines especially when immediate actions or answers are needed. They call us the spiders in the web. We start right away no time to lose. If I work from home I lose a lot of time, people try to explain to me what needs to be done on the phone and I like to see myself what needs to be done at the work floor, so there will be no misunderstanding. I only work from home when I am sick.

So really working at home is only related with your illness? That's 's really the only reason?

Illness or when we have a lot of delay and the work needs to be done before the deadline.

What do you not like about always working at the office?

If my colleagues always see me at the office they always think that they can disturb me. That keeps me away from doing my job and I sometimes have the feeling that I did not do anything during that day. I lose my focus on the job that needs to be done. So positive the short lines. Negative, the disturbance and being interrupted during my own work tasks.

Do you also miss something when you work on equipment, ergonomic design or workspace at the office?

That's actually very well arranged. For example, a few years ago everyone got a automatic adjustable desk so you sit behind your desk or sit behind your desk in any way you desire. So you do not get a stiff back. So ergonomically it's fine . We also have instruction videos on how to work ergonomically. As a result, I can say that I can work more effectively now this is provided.

We're almost came to an end of interview. I have two more questions for you. How do you think your working environment will evolve within the next decade?

I think that all our applications and data will be moved into the cloud. All our data will be digital and paperless. Instead of working on paper sketches we will be working more from drawings on tablets.

Can you give an example where exactly the in-office setting would lead to a success team project?

You mean innovated and integrated?

Yes.

Yes, well. We started to arrange to work one day a week from home so we cannot be disturbed during our work-related tasks. If my colleagues from production do not see you they do not border you. At the beginning this was no success. The communication with my team members was not clearly. We did not plan well. Not all the drawings that I need where stored digital but only on paper so I needed to go to the office to get them. Information in the mail was not complete. So we failed to work one day a week from home. So we started to plan more in the agenda's digitally. So my team members can see better what I am doing. We use Microsoft Outlook for this. We also take care that the drawings that we need are stored digital and are remotely accessible via the cloud. Although its better now, I think we still could use some better application tools. Now we still record things double and the information is difficult to find.

And then the last question of a team project in which correct working in the office led to an unsuccessful team project?

Yes. This was a little internal project. We thought it would be simple. We tried at the office to not to be disturbed at for least one day a week. So you can focus on your job. To be honest I do not know how we can solve this yet. Probably because we did not approach it in the right way like we approach problems when we have problems with our machines. We're still in the discovery face if we should continue the way we work do now, so five days per week in the office or try to start one day per week to work from home again, but that kind of failed after a couple of weeks.

We have come to an end of the interview. Thank you very much for all your answers and your time. This is much appreciated. Have a great day and thank you for participating. No worries. Have a nice day too!

Interview Transcription 9

Well, first of all, Participant 9, thanks you for doing this interview with me and doing this online. Thank you for reserving some of your valuable time. I would just like to start with the first simple question.

Could you briefly introduce yourself?

Yes, of course. You're welcome for the help with this interview and for your study. Yeah, sure, a brief introduction. My name is Participant 9, I'm 33 years old, live in Rotterdam, working now for 10 years approximately in the IT sector. So more the project management, all new implementations of IT systems. The last four years I worked for Company K, the Dutch telecom company, and I'm hired via consultancy bureau. So I'm a consultant and focusing on project management and business consulting. So several roles like stream lead or product owner or project manager. Yeah, I always work in a team around five to 15 people. I like the combination of technology and the business point of view, so what is the end value for the customer. So those two combine.

You said you always work in steam. So I assume then that like the percentage that consists of teamwork related tasks is 100% or is that not the case? Is it a little bit less or?

Your question was about if I always work in a team?

Yes, so do I have to see that like 100% of your work really consists of teamwork or how much work consists of teamwork related tasks?

Yeah, if you look into the work what I need to do, then of course I work what I can do by my own, but that is specific to work out something to make a procedure or to make a visual drawing to explain the situations or maybe so. Therefore I don't need a team, but I can do it by my own, by myself, but 80, 90% is teamwork related.

That's quite a lot, and could you perhaps more specifically describe what kind of activities you typically do in individual and team context?

Yeah, the start what I was doing was I was a product owner of a SIP product. So we have the big product where 15 people are working on, but it was a SIP product that is called voice recording, like this meeting that is being recorded at the moment. But I was the product owner for the supplier of the system, the platform and related to the architect and the engineers within Company K. So both areas needs to combine and to link to each other. A lot of meetings to discuss, okay, what is needed, how are we going to do that? So what is the end stage where we need to come, commercial things like, uuh yeah, the contract licenses of the costs. So all that kind of things, yeah, were for me. But now you see, yeah, after three years or something, now we are working for a new customer Schiphol, so the airport of the Netherlands in Amsterdam. Now we do a new implementation of our services for the new, yeah, push-to-talk service, and therefore I will do the dispatcher, so that is the control room in all the rooms for Schiphol. So the security control room, all that kind of things, and my focus is the dispatcher service. So it's a wide range of activities.

It is. You work in a virtual team setting. So what is it that you really like about working digitally from home?

Yeah, for me it is, I can do everything online. So it's for me easy, we are using the digtal team tool JIRA, it's from Atlassian, the brand. Yeah, there you can also see the activities related to all the backlog items. So and we work also in Teams, Microsoft Teams. So for me, I like to, with all the technical support and technical, yeah, IT systems which are available, it's easy to work from everywhere and, but yeah, my work is as well easy to do.

What other types of of events or applications have you found to be successful in order to maintain employee engagement in a digital work setting?

Yeah, that's a good question. Therefore we use the traditional digital tools. We use Agile. So from the scrum guide, we have sprints, we work in sprints from three weeks. So in the start of the first sprint, we are all in the same meeting via Microsoft Teams and we look three weeks ahead. So what are our plans to do in those three weeks? What are the goals? What we would like to achieve in the second week, we have also retrospective. So all that kind of steps and rituals in the three weeks, that is, as a team you work together, and because of those rituals, it's a kind of rhythmic and yeah, that is so nice to work in a cadence and you know each other, yeah, what everybody needs to do and that is very nice to work in a heartbeat.

And what is it that you don't like about working in a digital team setting?

Yeah, from my point of view is that the socialize, the contact face to face. I like to have direct contact with people, to look them in the eyes and to have some lunch together in the same room. So from my point of view, the social aspect.

Is there anything that has been done by the organization or the manager to increase this social aspect?

Maybe two or three times in a year via internet. So it was in a virtual conference room with some games on the background. So it's a little bit fake and doesn't feel like normal. So yeah, but you have to be creative for that part.

What is missing when you're sitting in your home office beside the social aspect, is there anything perhaps concerning physical components or the ergonomic design that can be improved?

No, everything about ergonomic and design is arranged. So I have a good chair, a bureau, now all that kind of things is arranged very well. So from the point of view, no. I like to walk during the lunch. So I need to take fresh air and go outside. You have to do that because only sitting eight hours on the chair, it will not be good for your health.

Is there anything else that you would like to currently change in the digtal working from home setting?

Now, we all look into different classes, so it's what my experience is, that you need to understand everybody very well, and from distance, just in a virtual setting, sometimes it's very difficult to completely 100% understand what somebody is meaning and is telling. So you have to check double and you have to ask the why after the why. So yeah, but that's experience as well, and you have to know each other.

Has there been any change in the coaching of your tasks in this digital work setting?

Not so many. You have a lot of freedom, but you have to come with results. So you catch up with each other when you, yeah, you want to have a conversation or dialogue. So in Dutch we call that sparren.

Are there any activities or tasks that you do from home that you, in team context, that you would like to do typically in the office setting, so on-site?

Yeah, we call it refinement. So you have to make big work, you have to make it smaller, and you have to have a conversation with the team and the colleagues to, okay, what is the complete point of view of the situation? And yeah, those kinds of activities, it works very well if you are sitting together face to face and you take a white board or a flip over and you can explain to each other easily and directly what you would like to explain and to make it visual. Those kinds of activities, yeah, or problem solving or problem description, rude call analyzes those kinds of tasks or activities, it helps very well when you are together. So about the problem solving and the problem description, so that's actually the first stage of team creative problem solving is something we as a team should discuss and strategize in the office.

Why?

Because if you don't define the problem correctly, than the rest that will follow will also fail. I feel its better to do this in an in office setting. It will be more effective to do this face-to-face that alle noses are in the same direction concerning the cause or core of the problem.

Is there anything else that can be improved in that stage?

Maybe to give feedback to each other in the team, so you have to be transparent and yeah, if something is not working correctly or you have to say something about somebody's behaviour, then it's easy when you are together in the office. So those kind of feedback on the person itself, those kind of activities will be much better in the office than only via a conference meeting, video call.

And what kind of feedback is mostly given in your team?

It is a combination of direct feedback and motivational feedback, for example, what you need to do, this is what you got to solve. Sometimes this kind of direct feedback is given to the team about what we got to solve or how to do it better or its about what we got to do. Secondly, there is the motivational feedback, all those kinds of things and motivational, motivation, yes, but also when something went wrong during an implementation or during a release from the software platform or the end customer has complaints about something and some individual in the team, his behaviour or it's not working correctly, then you have to, yeah, how do you call that, then you have to sit

together and you have to explain the situation, okay, what is your behaviour and what was the impact of what we have done and so those kind of things.

Okay, team creativity consists of three stages. We have already discussed the first one, so I would like to go to the second stage of team creative problem solving, which is idea generation, which means that you are creating and generating ideas that can solve the problem discussed in the first stage. How do you do this typically working in a virtual team setting? We have used another collaboration tool, Miro, and if we have described the problem situation there, then you can combine in one room in Miro and you can uhm, easily dump, brainstorm all kinds of ideas and you can, they call it sticky notes, so you can digitally post sticky notes and you can make a graphic of it or you make it visual and you can be creative together in a collaboration tool like Miro, so that is how we do that.

Okay and because those ideas are shared, new ideas might pop up as well in order to further improve or tackle the problem, right?

Yeah, and then we can prioritize the ideas and we can rank it and then we can come to maybe from the 15 or we can come to two or three directions of problem solving. So for the third stage, I think it was idea selection and evaluation we use Miro as well, because that's where we prioritize the ideas, so with that digital tool or application, you can actually indicate with a colour or let's or a number. This is idea number one, this is the second best idea. The Miro tool is working very well there it is a very creative tool and helps us to share our ideas in a digital work setting.

And in those, is there anything that can be improved in the idea generation stage, so like in the digital work setting or not?

Yeah, maybe the presentation or the pitch of the problem description, so the situation where we need to generate some ideas for, so the start of the situation to explain to everybody clearly what the situation is, that is everybody needs to understand it, and so they can come up with creative ideas.

So maybe that can help, and this idea generation stage, do you think like the team masters, it's sufficiently to do this online, so from home, or would you say now this stage is actually the same as the first one, can be better done at the office?

So physically, yeah, it depends sometimes on the problem itself and the situation, but I think it's 50-50, so it depends really on the situation, of the problem and the challenge we have, but what I said about Miro, it's working very sufficient, and it's clearly structured and indicated like what tasks are prioritize. So I would recommend for radical creativity and innovation, that this must be done in an office setting, and the small incremental improvements or solutions can be done in a digital and online setting.

And is there anything that can help you to evaluate and select the ideas more effectively in a more virtual environment, or is it good as it is with the Miro board?

Sometimes we use PowerPoint to share the screen via Microsoft Teams, but I think it works very well.

Which of those three stages do you think is the most affected with digital meeting technology or applications?

Oh, good question. I think this is stage number two, because there you need to be creative and all the ideas need to come together, so I think that one, but yeah, there you need to be creative and to have a tool. Our team is good in thinking up the small incremental improvements, but the radical ones, we are lacking a little bit, and that's a big problem we are dealing with this issue in the team right now, especially in the idea generation stage, and if you radically generate different ideas this will be most affected by digital meeting technology, I think.

Do social processes have different effects based on a specific stage of team creative problem solving. For instance, collaboration, cooperation, trust, psychological safety, leadership or other social aspects.

I think, then, the communication, yeah.

Why?

It's difficult to have an example. Let me think. Ooh, I know the communication isn't so good when some team members use voice, while others use video in a digital work setting. In those kind of communication, then, it's difficult to interpretate, and to make visual contact with them, so, the understanding of what the person is saying, and his meaning, that is, yeah, that can be understood incorrect, so, my experience is that it's very difficult, when some people have no camera, or only the voice, and so, it helps, when you see everybody in the, on camera, so, you can, yeah, the impression of their face.

So these face expressions, and this phenomenon that you just described, does that influence, let's say, your trust level, among your colleagues?

You want a hundred percent effort of your team members, so, everybody needs to listen to each other, and to be active in the meeting, and if somebody is hiding after the camera, and has not given a hundred percent input to be creative, and to give some ideas for the problem ideation, I think it will not give the, yeah, the perfect output you want to achieve.

What does this with the psychological safety of the team, do you recognize a difference, when they're digital knowledge sharing, or face-to-face knowledge sharing, or not?

Now, some team members has not the fully experience with those kinds of collaboration tools, this, so, it will help if everybody is experienced with those kind of tools, because if you are not used to work with those kind of tools, and in the face-to-face, you are always, yeah, you always, attending the meeting, and you are creative, and you're helping, so, you can be another person, if you're not used to work with, via collaboration tools. So I see there's some difference there, yeah, if I need to make and description of the difference between some persons in a face-to-face meeting, and during a collaboration, yeah, meeting via collaboration tool, then you see a lot of difference.

Okay, and that's because of the inexperience of some employees to use these tools, right? Yeah, correct.

Could describe for which stage that especially accounts for, is that also the second one, or?

Yeah, stage two and stage three, I think because stage three, they have to prioritize, and to describe, and the describing the value.

You said, like, some, some employees are inexperienced using these tools, that can be the case, it, is that because of, there is a generation gap in the team? Is that one of the reasons?

Yeah, I, think yes, it's one of the reasons, and, because they need to work with Jira, they need to work with Miro teams, so, our team has maybe four, five, some tools, which they need to know, and to learn, and so to get the best of the, of their input, they need to understand how it works, and they need to grow in the, those kind of experience.

What does the team do help them grow in those kind of employee experiences?

Yeah, we, we help each other, and to, to practice, practice, practice, so. It's called effort.

What about, like, and what about the, the manager, or the organization, what do they do to, to use those, to solve this, this gap, or to solve this problem.

Most of the time, like, for teams, we get an introduction course, so, and for Jira as well, but only the introduction of the course, so, and then we have, you have to swim by yourself, and you have to learn it from your colleagues in the team, from team members, so, the leader, as we always, when we need to start to learn a new collaboration tool, or, then always, it will be a basic course, or training, but from there on, you have to do it by yourself. So there are, like, external courses provided to create ideas with those tools, and then just be useful with those tools, so, that's what the organization does, but there's no level of difference, let's say, okay, the employees that struggle a little bit more with these kind of tools won't get, like an additional course. Except when that comes from the person itself it will be arranged, but I have not experienced that myself or in the team so far.

In those creative processes that we have discussed, there's also team development, as you said, because we, we do it with practice, practice, practice, we help each other out, we give each other feedback, I picked that out from, from your story lately, and, but what about, let's say, if, how this can be the case in any teams, if conflicts or chaos or confrontations arise, does that also happen in your team?

Yes, confrontations, yes, and sometimes it's very difficult to, yeah, again, to understand each other about the frustration and the confrontation, yeah, but we have to look each other in the eye, so you have to explain what the situation is.

What, what does the manager do to solve these kinds of conflict in a digital work setting?

Yeah, most of the time, we will address those kinds of situations and confrontations, and we, during the retrospective, so, when we come together in a team, via teams meeting we will re-evaluate the situation and we, discuss it with each other.

And do you experience, like, a change in the leadership style of the manager when working in digitally?

I think more freedom, more, the responsibility is more, yeah, you will get more responsibility, he will look more to the results. So, it is less micromanagement, and I think that was a big change. So you have less micromanagement, I think

Why won't micromanagement work in a digital work setting?

No, I think, more, one, one-to-one sessions, maybe one in a week, but, yeah, get your freedom and be transparent with what you want to like to achieve and what are your results, but keep in contact with each other, maybe one in a week or something, one time, but not every day

Is the ratio that you currently work digitally, is, is that the best ratio, or do you prefer to have, like, more in-office days? In other words, would you change the, the balance or the ratio?

For the future, you mean?

Yeah, also what we, what we discussed with the team.

Like for stage two, for example, that would like be perfect to, yeah, get more in the face-to-face meeting, get in the office for example, but not necessary, it will be more efficient and more, oh, for the social, also for the social aspect. So an extra day in the office would be more efficient for the work that we do.

Could you, for instance, give a good example where the virtual work setting has led to a successful team project?

Let me think. We, one time for a project, we did a customer journey, so describe all the phases of the journey of the customer, and we describe all the situations in swimming lanes, and because we, yeah, we need to know the customer. Also, the delivery process needs to be improved for the customer, so, and that was very successful, executed via Miro as well, but that was very successful to explain the customer journey, yeah, together with the team, and to improve the delivery process for the end customer.

Could you also give an example of a less successful one in the virtual team setting?

Let me think. We have one new project for a new customer, and therefore we need to, from the beginning, we need to make a, yeah, time schedule planning, and therefore, yeah, there were a lot of question marks, a lot of, uuh, white flags, so, all white fields, how do you call it, and it was not, sufficient and efficient, so, the output of the planning was not correct, so we could not make a good

start of the project. So, therefore, it should be helpful to be there together, and to make all the dependencies, and clearly in order to make the time schedule.

About these processes in the team projects you just mentioned, have you already had self-assessments about this in the team? You mentioned the retrospectives, but what about the team creative problem solving?

No, we should definitely do that. So I would recommend to have that in place, so that's something that we must address, maybe, perhaps, in a team meeting or so.

We have almost finished this interview, but I would like to ask you two more questions, if I may, so, overall, two more questions, if I may, so, overall, what kind of other implementations do you suggest for an effective digital work environment?

Yeah, to schedule some time to learn each other outside work, so, maybe, happy life conversations, and so, not only about work, so, take the time to, yeah, definitely, clearly know each other, apart from the, from work, so, maybe, therefore, the social aspect. If this is more done on a team basis, so, whether that's in a virtual basis or even better in physical presence, activities or other types of events we should do more in the team, in order to increase the team cohesion. This will help to increase the social belongingness and connectivity in the team.

Then my last question. How do you expect the team work setting to evolve within next decade?

Mm-hmm. I think it will be more, more, more, but easily, and maybe we can decrease the, the number of collaboration tools. So, and you also know that the chat GPT, so, all that kind of new technologies, like AI. So I think the collaboration tools can be less, and it can be, can be more value for us. So, I expect that there will be more technology available, but can help us very well.

So you actually suggest that the team should use or have less digital tools and applications and that everyone should use the same ones for her or his team-related tasks?

Correct, in order to work effectively, because there are too many to use for free, or to have a premium version for free, and I would actually say, now, okay, do, those are the, let's say, three or five digital tools that we need, that we use, and everybody uses those, so that we are all in the same boat. We're all in the same pack, and in that way, there is no communication errors, you know. It's best to have one platform with certain tools and applications and that everybody uses those. This is the best way to collaborate in creative sessions. Then you have one source of truth, and sometimes we need to copy some administration, like in Miro, and then in Jira, and it can be more efficient when it is combined, and maybe in Microsoft Teams, because the development of Teams is very quickly as well, so they are improving,

Those were all my questions. Thanks a lot. So this was the interview. I hope you liked it, many thanks for your participation. Much appreciated, and I wish you a great evening.

Thank you. Have a great evening too. I wish you good luck with your thesis.

Interview Transcription 10

Could you briefly introduce yourself?

Yeah, sure my name is Participant 10. I am 28 years old at the moment and I work as a front end developer at Company AC in the Netherlands in Maastricht. I have been doing so for the past 1 year and a half, and uh. So yeah, I have been working from home for the last for now nearly three years. Things have been going well. So yeah, I am excited to share my experiences with you.

How much do you work from home?

So it's a bit of a weird situation. I almost always work from home and I go maybe to the office once every two weeks, but the situation that I work with they are situated in Belgium, so when I am actually at the office I don't meet with my co-workers, but just with other people at Company AC, but they are not at the same project as I am. That is the only reason that I go to the office is to kind of stay in the picture, meet with friends, have some social gatherings and what not to kind of stay in the loop to see how things are going, and have some visibility as well in case promotions are coming up. Those kind of things, but workwise it's a 100% virtual.

Ooh, you barely see your co-workers again then. Interesting. How much of your work consist of team-related tasks?

Actually, I am the online front and developer active the project. When I started there was another guy as well. Then we have a meeting with each other and we worked together a bit more. Now most of my tasks are done individually. So kind of how it works is our client has a certain need or something has to be done and then we meet with them can discuss what need to happen, what needs to happen design-wise. Uhm, those types of things, functionally what needs to happen. So how we are going to perform the task. How are we going to prioritize things and then I can kind of go by myself to fix it then.

Who is we?

The designers, my manager and co-workers in Belgium

What kind of skills do you regard as important for your manager to posess in a virtual work setting?

I think uuhm, communication need to be very strong. There are kind of two parties where he need to take and give information from. So on the on-side he needs to take information from the client to be able to see exactly what they want to see to be done and those type of thinks and on the other hand. He needs to give that information to me and in case I think that it will be impossible or to difficult for the situation that I need to give that information to him and he needs to be able to understand what I am saying and I am capable of and he needs to give that information back to the client. So he needs some communication skills for sure. He needs a little bit of technical knowledge as well. Because if I tell him all these things and it doesn't make sense to him than it will be difficult to give that information you know, properly. I think he needs, uhm a good sense of detail because for example I have a situation now that the project manager has change. There was a different

person before and now there is a new person and I can and there is a big difference in how they set up. The previous person shared like screenshot ooh this needs to go there and this is going to be the text that need to be put in or more or less text over here, like this. So it's really unclear and I have to ask him a lot of questions what need to be done exactly. I don't have to the power to put the text wherever I want. That needs to be decided by the client. So that's a bit of a hurdle that I am overcoming with him at the moment. There needs to be a bit more detail as soon as possible.

Thanks. That was from your manager's perspective. What about your co-workers, did you notice any change in their support?

Aaah yeah. The situation is that I am on the only one who is doing content development and most of my colleagues are doing back hand development. So that is kind of a different role and we use different language that I would use. Often what happens now is that. Whenever I have an issue that I can't fix yet. I can reach to someone who is on a different project, explain the situation to them and usually if they have time they look at it together and what's also happening is that one of my colleagues is working as a back-hand developer and he is taking a course at the moment at frontend development. So, in this way, he can help me a little bit more and I can kind of teach him stuff as well. So we're kind of growing together in this role and get some better synergy, let's say. So we're complementing each other.

Is there a generation gap with you and your co-workers regarding the work that you do? Uuhm, no I think in the team. Let's say, maybe the oldest person is around the mid-thirties and one in the late thirties, and I am 28. So I am the youngest person as far as I know. Yeah, it's more or less ten years difference between the youngest and the oldest. So that's not really a problem.

What about the engagement and experience between you and your co-workers. What has been executed in order to maintain this?

That's a good question. Uhm, let' see. When I was doing the course for software development. We often do on Friday after work or after lessons. We will meet up and play a game online on your phone or cards against humanity. In that way we played a game altogether and that was kind of funny. You get to know each other a bit more and in my current role. Things to get everyone in the office. Goes that's like generally, there are not that many people here. There are 200 people working in the Heerlen office, but usually whenever I am there are 20 or 30 people there, maximum. It feels kind of empty, you know. Uhm, I think what they are trying to do, sometimes they offer free lunch or presentations in order to get people to come or they try to do a Friday afternoon drink type of thing. But that's not super popular to be honest, not a lot of people are coming for that. Uhm, yeah it's usually thins like free lunch or some games or uuh, like a table football tournament that was hosted a while ago. Some people came in that for that. I can't say there were a lot of effective things being done by the organization so far. But for me personally these kind of events get me in the office anyway.

Are there also some events that are hosted virtually or not?

There are some events, but they are usually voluntarily to join them, but they will be, yeah, not necessarily for people to come together and get to know each other better, but it will be more business related. So, uhm, there was a thing going on recently where they were launching a new thing it was a like a virtual reality tool of the office that they were launching and they invited everyone for that. I didn't join it myself though, but those type of meetings like Amazon Cloud Services more educational and informational meetings, but not really social gatherings virtually.

What is it that you like about working virtually?

What I like about it most is that when you finished your work at three instead of five, you can already have leisure time. While working in the office, that's not the case. You have to spend these two hours just sitting there, acting like you're busy. Secondly, I can schedule my day like I want if I have those two hours left I can put a wash on and then go back to work. Like I don't just need to sit there and acting like I'm busy. Those types of things those are definitely nice. Uuh, what else, uhm, it saves me time to travel. Like if I go to the office and need to wake up an hour or an hour and a half earlier than I do when working form home. So that's definitely a big plus of being home. Uhm, yeah, so those are probably my favourite points of working virtually.

Okay, clear, thank you, but what is missing when you are working in your home office?

I think what I miss the most is the social link with my colleagues. Uhm, because when I am in the office and for example I have five minutes or something before a meeting sit to a person next to me or maybe have a coffee or something with someone and me personally like I am not the type of person that gives someone a call, like hey, how are you doing, it's your co-worker. I would do that when I am in the office though, but not when I am at home. So I think the social aspect of the whole situation is the best thing about going to the office and that's the most thing I miss during working at home.

You work almost always from home. How does that influence your psychological safety in comparison with working from the office?

Uuhm, I'm not sure because whenever I am in the office I am also not together with my team. Because the people where I work with from my project they are all in Belgium. Actually I have never met them before even. Uhm, so whenever I have a question I text my manager or my colleagues to see what kind of they think and to get their opinion on the situation. Uhm, so when I am working from the office I have to text them anyway, which I don't feel like anything from stopping messaging them. Sometimes I am kind of like take an extra half hour and see if I can fix it myself, but I don't think that has anything to do with working virtually for me, personally.

You said most of you colleagues working in Belgium. Are some of your colleagues working outside of Belgium or Europe?

Uuhm, no. The project that I work for at the moment I am only working with Belgians, not even Dutch people. The reason is that they couldn't find a front-end developer. In my previous project I was working for a German company called Steel Proof, they are a steel producer, uhm and then I

worked with, my team was located in Heerlen and that team in Germany, Duisburg, but there were also a couple co-workers form India and in Bulgaria as well. I think there was kind of support system in Bulgaria, yeah.

We already discussed your home-office. But what is missing when you are working in the office, so on-site?

Not really. There are desks, every desk has a screen, they have HDMI, the cables, they have all the cables we need, electronics. For example, when I need a third screen that will be taken care of by the IT guy. Also device wise I had a uuh Microsoft laptop before, a HP one, but for my lates project I needed a MacBook, and requested this and within three days I had it. So that's great. There is a coffee machine, some microwaves, food. All that is necessary for lunch. What I do miss though, uuh, I think the food that they have is very limited, compared to, for example, Indeed where I worked in Dublin, their facilities were absolutely insane, like that was actually crazy. They had so much food and drinks and all that kind of stuff, like every floor had like three kitchens and all of them had like a big rack of food and snacks and drinks and like all that kind of stuff. I don't want to say that Company AC should have the same, because that was quite, you know, that was pretty crazy. Like they had a buffet and stuff for lunches and chefs and stuff walking around, but here. I think you can get like, there's a little basket of fruit, which usually runs out around 10 o'clock or something, and they have like a nut mix or something, but like maybe some cereal for breakfast or those type of things, or like, yeah, just maybe a bit of food. That's what misses the most, I think, because that's quite limited, but I mean, it's not a deal breaker, you know, that kind of way. It's just the thing is nice to have, but it's not really a problem.

What about the working from home setting, is there, does the same principle account for that as well, that if you need anything, the organization will provide it to you?

Yeah, so a couple of months back they offered. They offered a screen, an ergonomic chair, and one of those electrically movable desks, so yeah, I got those, I already had a desk myself, but I got the chair and I got the screen. I didn't opt in for the desk because I already had one, and then, I mean, it won't fit in my house, so, you know, I skipped that one, but I'd say it's done quite well. I don't get anything for Wi-Fi or electricity, but they did recently offer, it's called a mobility budget, so like for transport and those type of things, I get like a certain sum of money now every month to kind of, either to get a lease car or maybe to get like a train card or those type of things, so I'd say it's done quite nicely.

Could you explain how this affected the team collaboration and productivity?

I can maybe, for this one, I can maybe jump to my time at Indeed, because at Company AC when I started here, I've only worked virtually, but when I started working at Indeed in January 2020, so just before COVID hit, and I was doing my training for about two or three weeks, and then I actually joined the team, and we have, I think we had a meeting every Monday, and we all got together, like my team was, I was the only Dutch person, there was an Italian, French, Spanish, all that kind of stuff, like we'd get together then, kind of discuss like, oh, I have some strategies, like I tried this this week, and I got like really good results from it, those type of things, and after COVID hit, I think

we tried to do those meetings a bit more often, so instead of once a week, we'd meet like three times a week, I'd have more one-on-one meetings with my manager then as well, they tried to do some things for like mental health and stuff too, at a certain point they added an extra day off every month for like a mental health day, which you could just kind of focus on yourself and managing your outside work life, those type of things, so I think, basically in a nutshell, I think they tried to create a bit more contact between each other, because you miss those, you know, you miss those five-minute coffees, those type of things, so they tried to kind of fix that by meeting up more, and just have a chat, those type of things.

Would you change the ratio of the virtual basis at the moment? Let's say that you want to work more in the office that you are doing now?

So, like, you mean if I do like to go into the office maybe two or three times a week instead of once every two weeks, basically?

Yeah, yeah, or just once a week, or twice a week.

Yeah, not necessarily, I kind of like the working from home, because it suits my personal life better, I think that extra hour or hour and a half in the morning is quite nice, just to, you know, to sleep a bit more, to kind of get up more relaxed, and because, like, if I go into the office, I notice myself at the end of the day, I'm quite tired, like, I'll be in the office at maybe three or four, and I'm kind of on my laptop, like, falling asleep, you know, that kind of way, so in that sense, I definitely, I don't mind working from home. I don't think I'd change it, I don't think I'd change it, like, I think if I change, I'd possibly go to working from home even more, you know, that kind of way, but I'm kind of happy with the way things are going now.

We have talked about the team collaboration and the productivity we just discussed, and I would like to come to the team creativity aspect of this research, and as you know, as I explained before this interview, creativity is a field, and it's also better known as team creative problem solving, and this has three stages, the first of it is problem identification, and in this stage, you and your team members identify the problem and discuss it, so could you describe how this typically goes in a virtual setting?

Yeah, sure, so kind of the way that we work is that, well, we have our client, they have their application, website, whatever, and they'll identify things that they need done, so this could be either there's bugs, things aren't working at the moment, or maybe you want extra features, those type of things, so that's kind of things that they identify, and they bring that to us, they create tickets, and this tool is called Jira. So they create tickets in there, and then we have a weekly meeting with them to kind of discuss what exactly needs to happen, I think usually my manager would have meetings with them separately as well, then we have meetings on every Tuesday, where we kind of discuss what exactly needs to happen, where we kind of discuss like, oh, I've been working on this ticket, but like there's some information missing, maybe there needs to be something done on their side as well, because they take care of their own database, so there might be some certain aspects that they need to add, or maybe need to change, but yeah, the thing is that since I'm the only one that works in my specific area, there's not really someone that I can brainstorm too much with,

being like, oh, I think this needs to happen, you know, it's kind of something that I need to analyze by myself, unfortunately. Often I can talk to co-workers, and he can kind of say, depending on if he knows or not, he can maybe advise, or put up some suggestions, but usually I would discuss it with this person, and then I'd bring it to my manager, and we kind of discuss what the options are. I'm not sure if it's very creative, like usually they decide what, the client decides what they want, and we kind of check if it's possible or not, and in which way it is possible, then we have designers and stuff, they kind of check in which way it needs to be fixed, or what it needs to look like.

Do you as a software developer also communicate with those designers about the problem?

With the designers, very little, but I think that has more to do with kind of the phase that we're in at the moment, because when I joined, we were just about to push a whole new update, that was in, I joined this project in September, and we put up a new update in October, end of October, and there was a lot of communication with the designers at that point, but now we're still waiting for a certain aspect to be done by another third party, but they've kind of been messing it up for the past, or from what I've heard, they've been messing it up for the last year and a half, more or less, so that's not great, but we're kind of just, we're just doing bug fixes at the moment, mostly in like little, small little features that need to be done, but it's usually more functionally than design-wise, like a button that might not work, or data that's coming in that's obsolete, those types of things. Yeah, and you said sometimes after the last one and a half year, it's kind of messy at the moment.

What can be done to improve this stage in a virtual work setting?

Yeah, it's a difficult situation, because it's another third party, they're a different company from, I think they're in Turkey or something, they're called Icron. They're basically, they're fixing the servers for our client, and yeah, over the past year and a half, they've been doing updates on those servers, and they've not been able to fix it, but what they're doing internally, I have no idea what's happening there.

Then we move on to the second stage of creative problem solving, which is idea generation, so you discussed the Jira application, but how is idea generation done typically in your team in a virtual setting?

I think it happens a lot in that meeting with the client, because often there will be, let's see, it's done with them, and we kind of discuss like, oh, we kind of, we have a couple of suggestions, right, like, oh, maybe we could do this, maybe we could do that, but if we do this, then this needs to happen as well, but if we do that, you know, that kind of way, we kind of just give our suggestions, then we kind of, I think usually they kind of have an idea as well, what they want done, sometimes it's possible, sometimes it isn't. We kind of see what's going to take the longest, what's the more viable solution over the, you know, what's going to be more sustainable for the next year or two, whatever, how is that going to affect other parts of the application. So it's usually just that meeting that we have, and yeah, if there's anything missing to what we need, and then we discuss how we're going to, yeah, solve that.

Is there anything that can be improved in this stage?

In my opinion, yes, because this issue, because we only have this week, this meeting weekly, you know, so if, for example, this meeting is on Tuesday, but if, for example, I have an issue on Thursday that I have missing information or we need to discuss something that, you know, when it's not fully clear what needs to be done, I have to wait until Tuesday to discuss with them again. I can say it to my manager and be like, look, I think we have a problem here, we need to fix that, or we need to discuss that with the client, and usually I'll get something like, oh yeah, we'll discuss it on Tuesday, you know, but then I'm kind of stuck for two days to know what needs to happen then. So like, I don't want to say we should necessarily meet two or three times a week, I don't think that's necessary, but I think there should be a more open line of communication maybe between the client and also me or maybe my colleague, like not everything has to go through the manager.

So there needs to come more support from your team members' side?

Yeah, but also from the client side, I think there's a bit of a, well, because like, I can message whoever's on the client side, but often they won't reply or, you know, or they'll kind of say, they'll be like, oh, you have to discuss with your manager, you know, that kind of way, so I think the, yeah, the communication with the client is probably the thing that needs to be improved the most.

Then we come to the third, and last stage of team creative problem solving, which is idea selection and evaluation. Could you explain how this is typically done in a virtual teamwork setting?

So, idea selection and evaluation is what you said, right?

Exactly, yeah.

Idea selection is usually what we agree to in that meeting, and also yeah, I mean, it kind of depends on what the client wants, kind of, but yeah, we'll, I think if it's going to be too much of a difficult solution, we'll usually try to kind of steer them in a different direction, into a different suggestion that we have. Yeah, I'm just, I'm just thinking how, how...

Yeah, that's good, take your time.

Let's see, idea selection. In JIRA as well, there's usually, there's like a comments section, usually a lot of things get discussed in there as well, after researching what was, what was kind of decided before, you know, like sometimes something is decided before that we think is going to be possible, but then after analyzing the situation a bit more, it seems to be a bit more complex than thought of beforehand, and often they'll be, it'll be discussed in JIRA then as well. Yeah, usually, it's kind of, ideas get selected based on a discussion with their party involved, so you could, like, for them, the application is kind of managed by different people, they all manage a different part of the application, and we discuss with them, and it's usually kind of a unanimous decision then what needs to be done, like, it's actually, it always has to be unanimous, kind of how we select then, eventually. And then, like, basically then it's kind of up to me to implement it properly, and the way in which it's done, there's usually a couple of different ways in which something can be done like that, but since I'm kind of by myself, I just have to kind of pick the one that works, you know. I would say my

colleagues, the desginers, they do more of kind the creativity process, so the three stages that we just discussed. And I am actually doing more the progress that comes afterward, which is the execution of that creativity process, that's typically called innovation, and that's what I am responsible for, that's also uhm, uuh, that is this web design and development that I am in and doing.

So if I understand you correctly, you use Jira as well, for idea selection and evaluation, so the same with the idea generation stage, and you basically vote for the top one, or perhaps with some backup ideas, so top three ideas, with a unanimous decision, right?

No, it's not like there's a poll or something, it's more the comment section, you know, people just write like, oh, I think this could be a good solution, and then it's kind of like, oh, yeah, yeah, sure, that's good, you know, like, and then if the timing's right, that'll be discussed in that Tuesday meeting then again as well.

Is there anything that can be done to improve this stage? For instance, would you like to use a poll for this typical stage?

Uhm, I mean, it wouldn't be the worst, like, if there's several solutions that have, yeah, if there's several solutions that have kind of the same complexity to it, and the same, that are going to have the same outcome, I'd definitely be interested to see a poll, because I think they'd be happy with that as well, I think the client would be very happy with that as well, let's say it would be good, I don't know if Jira has that option, but they might do.

Mm-hmm, and about these three stages, do you have, like, self-reflections or evaluations about team creative problem solving?

Not specifically, I have a meeting on Friday, this is the one, the meeting that I went to just before this one, that we usually, we get together, and everyone from Company AC that works for the same client, we kind of all get together, and we kind of, we share our updates, and things that went well, things that didn't go too well, and things that we're looking forward to next week, I think that's the moment in which something like this should be discussed, but it's not like it's a weekly thing, or like, very, what do you call it, frequent thing that we talk about the creative process, it's mostly kind of, just kind of summing up what happened over the week, and sometimes, like, seldomly it'll include creative process.

Okay, very clear, but you would recommend to have those in your team?

Potentially, yeah, I think, actually, what might be...That will help your innovation process as well, do you think, or not? Yeah, I think, actually, now that I think of it, we do have something similar, I don't know, you know, like Scrum, like Agile Scrum, that type of stuff, yeah, so we have those sprints and stuff as well, usually take about, like, two or three weeks, and at the end of the three weeks, there's usually, like, a retrospective, where we kind of discuss what went well, what didn't go well, what we should improve for the next sprint, I think this actually has some of those elements, like creative process, creative thinking, what to improve there, those type of things, so I think that's, it is something that happens, for sure, I don't, personally, don't have the biggest role in it, but yeah, those meetings are there, yeah.

You talked about Agile Scrum. Is there also a Scrum coach or master that you have in the team, or that is hired to improve these kinds of digital collaborations, or problem solving? Well, we have a person from the client side, who joins as well, I know she is a Scrum Master, technically, she actually, she kind of does, she does kind of lead the process in that sense, there's no one from our side that takes this role, that's from the client side.

Which stage is effective the most with digital technology, would you say, out of those three?

From the, you mean, the idea creation, idea implementation, that type of stuff?

Yeah, exactly, and which tool is the most effective?

Um, okay, okay, I think I get you, so yeah, I think for problem identification, it's pretty good to do virtually, because, you know, you can share your screen, you can show exactly what's happening, like, in my opinion, it might even be better than doing that physically, because now, you know, you just see the screen, you see, like in my case, anyway, I'm sure for other types of roles, it doesn't work that way, but since my stuff is all on the screen, it's quite easy to share it then and see what's going on, so I think that's actually pretty good. I think maybe idea generation, sometimes it's a bit of an issue, because like, it's, I don't know exactly how to explain, it's a bit like, you could probably explain something more clear when you're in a physical situation, like, for example, if we have maybe a whiteboard hanging up or something, what's called like a smart board, and you see the thing, you could be, you could draw on this stuff, or whatever, you can point more accurately, like, you know what I mean, like, because I don't know if Teams, we use Microsoft Teams for meetings, I don't think Teams has a very good option to draw on sharing the screen, those type of things, or at least we don't use it, so I think idea generation is probably the one that is the least effective in virtual working.

Do these social processes in those three phases have different effects, you would say, in a creative problem-solving effort?

Ooh, deep, deep question. Um, ooh, that is a good one. I've heard that before. I'm trying to think exactly.

So, we have problem identification, idea generation, and selection and evaluation.

I would say also idea generation here. Although I don't think the social processes haven't really created a problem in my situation over the past whatever time. So, I'm not sure if I can really answer that properly, like, I've had a situation, like, sometimes it's like misunderstandings, and virtually, when it comes to, especially idea generation. But, I mean, it also happens while, like, the problem, identification, it happens there as well. So I don't think there's any stage for me, personally, that has social, that has problems in the social process, kind of.

But what about, for instance, when team use, yeah, different methods of communications? So, for instance, some team members use voice, while others use video, or they use audio plus video, or some, they don't use their video, or neither they use their audio.

Yeah, that does happen. I have a colleague that doesn't really put his camera on ever. I don't know, I don't think anyone really minds, or at least no one usually says that they mind. So, it's kind of up for your own decision if you want to put your camera or not. I kind of switch, like, sometimes I put it, sometimes I don't. Others always put it, and some never.

So, you wouldn't say that will affect the trust level between your co-workers, and damage the creativity process?

No, it's okay, I think. I had a previous project that I worked on, and it was important for them to put on camera. But yeah, sometimes they'd also be okay with it, like, not being on. It kind of depends on the situation as well. Like, if you're, like, implementing something together, if you're actually discussing, like, in that project, if you were discussing, and they'd prefer if you have your camera on. Which, it's never really been a big problem, I'd say.

And does your manager say anything about it when that happens, or later, or not?

Uhm no, I think the thing is that, with this project, when I came in, it was actually quite normal for people to say, like, um, it was actually quite normal for people to not have the camera on. Which was new for me as well, when I came in. It was quite surprising, kind of, because I was kind of used to everyone having a camera on, and it being, yeah, like, I don't want to say it's disrespectful to have it off, but, like, it'd be considered respectful to have it on, kind of. So, that was quite a shocker, but yeah, I mean, I'm kind of used to it now, like, personally, I don't really mind. Like, if I'm in a meeting one-on-one with someone, and I have my camera on, and they don't, it's a bit weird. But if it's, like, you know, there's, like, 12 people there, like, five people or whatever, and one or two people don't have it on, I really don't mind, personally, and I don't think my co-workers mind a lot. Their clients mind too much.

And what about if there are some people working in the office, and some are working from home, do you have a feeling that that affects the creative process, or that you are more or less a little bit neglected, or not?

Um, I don't think neglected, but I'm guessing that they'll have some work-related chats as well, you know, just in person. So, you wouldn't possibly miss out on a bit of information. But I'd say in those meetings, you'd still get the essential information. But I am sure you'll miss out on some details, or, like, little bits, maybe.

And during these three stages that we discussed, that often, or sometimes, conflicts, such as chaos and confrontation can arise. Did that also happen in your team?

Um, see, I'm just thinking. I remember there was a bit of a situation last week, or two weeks ago, but it was more of a. It was a bit of a misunderstanding. It wasn't like it was just someone misunderstood someone else, and they kind of gave out about it.

What was it?

I think we found an issue somewhere. Like, because they're a Belgian website, right? So they'll have a French and a Dutch version of the website, and it was like, there was a certain page that was like, it was Dutch in both, like, so it was Dutch in the Dutch version, but it was also Dutch in the French version. And they raised a ticket about it, and then, I think it was like a week after we had a meeting again, that I discussed with my co-worker. Like, oh, yeah, I see this is the issue. We should fix that or whatever, and then he was like, oh, yeah, I actually noticed it's in this page as well, and then we had the meeting with the client, and he said that, like, he was like, oh, yeah, I saw it was in this page as well, last week or something. But I think she must have misheard him or something. But she was like, well, why didn't you say that then? Like, as if he, but I think she thought that he saw it, like, a couple of months ago, you know, and just never said anything. Which I think that was more of, I don't know if that's necessarily because of virtual working, it could have been. It could have been, like, maybe just a little crack in the audio or something that she might have heard. Like, I saw that last month instead of last week, because, you know, I kind of like, it was pretty funny, though. She was very mad about it. She was very, very mad, and we were all kind of confused why she was so mad. But then at a certain point, we kind of realized it was because she thought that he saw it, like, ages ago.

So your manager was very mad about that or a colleague?

No, one of the clients. She was the scrum master from the client side.

What did your manager do to solve that problem in this heated discussion?

Yeah, he kind of jumped in and just kind of, um, I think he noticed quicker that she must have misunderstood what he said. And it was kind of like, I don't know if this happened, like, a couple of days ago after the ticket was created and stuff, and then my colleague kind of jumped in, like, oh, yeah, yeah, no, I just noticed, like, two days ago or something, and she was OK with it, you know, and then kind of de-escalated the situation.

Is that then, like, a typical negative experience that you would, say happened in, like, a less successful team project on a virtual basis or is there anything else?

Well, for me, that's really an incident that that situation happened, and that was a bit of a, yeah, argument kind of, like, usually I think, I don't know if it's my luck, but everything goes really smoothly, I think. And yeah, everyone's quite open to hear from each other and those types of things. So I think that was really an incident. Like, usually everything goes quite well, and there's no real problems in that sense, in the social part and working together goes quite well.

Okay, so normally everything goes quite well. So could you then give a typical example of a successful team project in the virtual work setting?

So let's see, just trying to think of a good one. Oh, I have to go back quite a bit. I'm trying to think of the... Yeah, it's okay. I know one. When I was still with my co-worker that was also working on the front end, like that's probably times that things went better. Like, you know, that there's more team work going on. So recently we had a situation. So the client that I'm working for, they have.

They're in the Belgian kind of I'm not sure if it's like medical... They have kind of like a construction service, like doctors in the office. Like work doctors, I suppose, and basically the thing is that like a company can sign up with the company I'm working for, they're called Mensura. So basically companies can sign up with Mensura and then it's basically a platform where they can have their employees go get like medical exams. So like they can get like a half year check-up or something or also maybe like psychological interventions or examinations or like see if they're still good to drive, like random stuff, like all types of stuff, but the data that comes in for employees comes from the other side, and because sometimes companies that sign up have so many employees, the way that it comes in is a bit different than the other data that we get in, and what they wanted, they wanted like a filter function to filter for certain information, whatever. So I'm working... Like I got this task assigned, right? And I'm like, oh, cool. Like I haven't worked with something like that before. Like interesting, I'm going to work on that. So I'm working on this for two days or something. and I'm kind of like, why is it not working? It just didn't work at all, and so I texted a colleague that's not on the same project, but he's a front-end developer. So I'm like, hey, I'm working on this stuff. Like I have no idea why it's not working, and he's like, oh yeah, that's because that one's like, that one comes in differently than the other ones. So actually Mansoura need to make a change in the database first before you can do it. So then I reached out to the scrum master person from their side, and I was kind of like, oh, look, there needs to be some changes on your side. She goes, oh, I'll talk to this guy. Then we discussed it in the meeting as well. Then the guy from their side, he fixed it on their side in maybe one or two days after discussing what needed to be done exactly and what the problem was. Then I could continue my work and yeah, I mean, it's fixed now. Like, you know, it took me a couple of days then as well, and I think that was a pretty good situation. So we went to that meeting. I kind of explained to them like, look, the data that needs to filter is not coming in correctly. So you need to add this and this probably. Then after explaining, they kind of understood what needed to happen. They fixed it. then they explained to me what they did exactly, all the names and those type of things, and then, yeah, I got to fix it that way.

So we've almost finished this interview, but I would like to ask you two more questions. Yeah, sure.

What implementations do you suggest for a more effective virtual work environment?

I'd say.... It'd be good to have like maybe a tool in which you can kind of doodle on a screen share. You know what I mean? I think actually Zoom might offer that one. I'm not sure if this one or Teams has it, but I think Zoom has it as well. But like whenever you share your screen, I can put like an arrow or a circle around something, you know, that kind of way. That you can point things out more or that everyone in the room kind of could do it. That kind of stuff could be good.

What else?

Yeah, I'm not really sure. I think I need some more time to think about some good implementations for that kind of... but I think it kind of starts with the tools that you can use, in my opinion.

How do you expect the hybrid work setting to evolve in the next decade?

That's a nice question. I think it kind of depends on the sector that you're in, on the industry. So for example, for my industry, it wouldn't surprise me if it goes to full virtual, like for software and those type of things. I'm sure for other things like sales, for example, or yeah, sales, for example, like sometimes it's nice to have like a personal touch and to actually be on site and meet your clients, and those type of things. I feel like it's something in sales that would be quite good to kind of create that trust. So it kind of depends, like I think for roles, maybe like even in digital marketing or something, I could imagine becoming fully virtual as well.

So it's a bit difficult, but yeah, I'd say things over the next couple of years are going to change so drastically anyway that it's hard to predict or to expect because like AI is making such a big impact now, and it seems like that's going to be pretty crazy over the next couple of years. Virtual reality is doing stuff as well that could probably, you know, if it gets developed a bit more, it could probably like be implemented for virtual working as well. So I think we'll have to wait and see, but it wouldn't surprise me if there's going to be more virtual, like working from home situation.

Many thanks for answering all of these questions and for your time. Much appreciated again. We have come to an end of this interview and hopefully you found it interesting to participate. I wish you a very good weekend.

Yeah, perfect, man, and good luck on the thesis and your studies and all that stuff. So let me know how it goes, and what your results are. Have a nice weekend.

Interview Transcription 11

Hi Participant 11. Thanks again for participating in this interview and doing this online with me. It's kind of the next normal anyway. As discussed via phone and sent via mail this interview will be recorded and solely used for transcription. I would like to start with a first simple question.

Could you briefly introduce yourself?

Yes, I can do that. I am Participant 11. I work at Company WB. It's a housing coorperation since six years. In the meantime I have a job position called residential supervisor. I sit with a team on renovation, department property and I guide residents and landlords before, during and after the renovation with demolition and new construction projects. I am responsible for the social interactions, so to speak, within the renovation. So the set-up of a participation plan, a communication plan, before we start with renovating and what we also expect of the contractor. Uhm I set up this plan, but I don't have a leadership role in my team. I am more of a executor, advisory, and a little bit of strategic function incorporated within my position to tackle within on social area.

And this strategy what's its all about, you are thinking up those strategies and this is what is called creativity. Because creativity is thinking up of plans or ideas for certain problems and doing these things is what is called innovation. So if I understand you correctly is that you are mainly busy and responsible for the creative processes?

Yes, I certainly 60 or 70% of my work consist of team-related tasks. So that is quite a big part.

Could you describe more specifically what kind of activities are typically in team context?

Team context is setting up the communication plan. For example, news messages, resident messages, information booklets. This we are doing, for instance, together with our advisor of communication and also with our project manager, this is about the technical aspect. He test everything on technology, whether everything is in good and correct condition. That is, for example, a team-related task. Also drawing up a social contract. Which is important for our tender or contract, so to speak. So that's buying a contractor. A social specification is an official purchasing document that contractors will count on, so to speak. What we ask in the social field, I set that up and the project manager checks that. In this way there is at least a document that has also been tested and that has been checked by the entire team.

How has hybrid working influenced these kind of tasks that you just described?

In the time of COVID we had to go fully digital. Part of our projects were temporarily stopped, but a part of it could continue. So we had to prepare and persevere. A lot of preparations we had to do digitally. In the beginning we had to get used to this of course. Not all colleagues are digitally skilled in a way and not all digital resources were facilitated or did arrive on time or were not ready yet internally. In the end, I have to say that it is, that we are working together more purposefully in

order to complete a specific task or meeting. As a result, you can sometimes finish something faster with a certain task than if you physically speak with each other. The point is that you don't have the social connection with each other with new colleagues or with a contractor you select. You don't have that physical contact. What is also important to assess whether you have a good click with each other or not, body language,. So that's both positive and negative. So some less positive points on that.

Can you tell me a little bit more about that meeting room, that is so good for you at Company WB or that technology. Could you mention an example?

Yes, we have some areas where they have purchased equipment. That is a large TV screen with a good camera. A sharp camera. There is also an electronic devic on the table with which allows you to work with that kind of tech-equipment. So you reserve the room and you reserve it with your colleagues and when you enter the room you only have to tap the device and then you enter the Teams meeting. So you no longer have to connect laptops to TV or whatever. So there are some spaces that have that, with sharp image and sound quality. The camera can also follow you when someone speaks. So it just looks really professional also towards our partners or contractors. Of course we also have a lot of external consultation where you really want to appear professional and this equipment supports that in a great way.

If you talk in the hybrid meeting, for example that camera will zoom in, but also the volume is automatically adjusted by that camera or by that technology. It is positioned in an angle, so to speak, so that you are more clearly understood by your colleagues who work from home or your clients?

I dare not say anything about that. I've never tested that myself.

Okay.

It is generally understandable at home. Yes, it is only difficult to follow at home if you all talk at the same time. So if you talk in a certain direction towards the microphone, for example. Then it is more difficult to follow at home. So that's indicated.

Can you indicate any other advantages of hybrid working?

It's nice that you can schedule an appointment in an easy way. Even with external parties or clients. There is no travel time. So it is just much easier to schedule an appointment and to be able to consult each other quickly. So that is really a big plus. So you don't have to physically approach each other. That has also become kind of accepted. That it's just okay. So retrieving information. Sometimes exchange with corporations. You can easily exchange information, for example with a corporation from Amsterdam or Eindhoven. This can be done digitally these days and in the end you just have your information and your answers, so you can move forward with it, also in terms of time

and costs. So it is efficient. So I think that is really a big advantage and those are the pluses, among other things.

What are the minuses of hybrid working?

Yes, the minuses are. That's one of the big ones. This is also indicated internally. That's there is a social connection, which you just have less with each other or not. If you only work digitally, that's fine for some colleagues. I think it's nice to just have physical and social contact with your colleagues plus you can't see each other's body language. So that's just very difficult to follow digitally and there you have to physically sit with each other and you actually have to do certain subjects. I prefer to do it physically and not digitally. So that's it. Well, working completely digitally, I couldn't do it, because I also think connection is very important and that is also supported by the organization and facilitated the importance of it. Yes, so I think that is a point of attention or minus.

You said you wouldn't be able to work fully in a digital setting. Hence the hybrid working method is created, which is the new normal within many teams. What is currently the current ratio of the hybrid setting, so how many days a week do you work at home and how many days a week do you work at the office?

Yes, that is very variable, because of course you can make a claim with your manager for each employee. But I think there is a rule that I don't know by heart. I think it was two days a week or three with full time contacts and then three days in your home office. So working digitally. I think that was that kind of percentage. But I am not sure. But there is a guideline, so you don't work completely at home. Some employees with certain job functions cannot work from home either, because there simply have to be a physical presence.

Is that really classified by job position for you, depending on that function, who works so many days at home and who works so many days in the office?

Yes, it is classified by function groups. Team function groups.

And as for the team tasks?

Yes, I can only take a look at myself. Maybe I have a fixed number of days that tick certainly work at home and certainly at the office and I try the days where I want to have physical appointments. That I don't put it there. No more those appointments, I schedule on days when I don't need someone physically so much. So that per week. I haven't really followed that, to be honest. Especially thinking about it.

So your organization or manager really gives you the freedom to do that?

To organize the hybrid work yourself and that again differs per function. We have at our function group, where you can also see, it also the part of your own agenda. You reach your targets, so to speak. So you can slide into it and you then decide with each other. This will be a physical appointment. This will be hybrid one, partly physical, partly digital or fully digital. So you decide that with each other.

Do you notice that his leadership style have changed in the hybrid work environment?

My team leader has been there for half a year or three quarters of a year now. So that's kind of hard to say because he came a little bit after everything started up, he came in. So I can't really say that about him. Can I say something about the previous manager? How it has changed?

Yes, but really explain the emphasis.

But that's this new team leader. He seeks out the importance of team connections. Yes, that he really thinks that is very important. I think he thinks it's really important, but also, he is also instructed by the organization and by our MNO department. So actually from the organization or from its leadership style you can conclude that it is more the face-to-face conversations and physical meeting that is requested to check upon the team from both the manager's and organization's side. That it is actually stimulated, because it scored very low from the employee association survey. That it was really a risk and point of attention. Yeah, so that's what they picked up on. If they don't, then it also affects the health of the employees.

So you also have your own evaluations within the team regarding hybrid working?

Yes, and the organization too. It is clear that there is really a listening ear for that and not only okay, but they also really listened to it and put their words into action. So reaction, action, so to speak.

What skills do you think are important for your team leader to have in the hybrid work environment?

I think at least a bit of a conversation leader. We work in project teams. The team leader is not there. , but a moderator is also differs, say, per task, per meeting. Yes, a moderator in any case, if you work digitally, is important. So that everyone gets to hear, so that you do have structure in your consultation, so to speak and combines that with different means here, so to speak. We often share the image, say, what you have and you can share certain points here or you have a whiteboard or if you want, brainstorm digitally, because it is, yes, we do that on a regular basis. So that you also think about how you can use the consultation as creatively as possible. What is your goal, your means? So that's important. The physical aspect too, of course, but digitally you have just a little more what you want. Basically everyone a little more irritable in a digital work setting. With working

digitally there is a danger that people are present, but, I say, it's a bit easier to hang back in digital work environment than physically in the office.

But you also mentioned, you have had courses on digital working. Because with corona, not everyone was equally experienced in it. How is that now?

Yes, it has improved. It also differs per person. I think most people just know and can handle the basics. So you're going to start on your plans a lot of sharing is still just fine. That too, yes and only the rest of what we work. With project teams, we also often use the Teams environment where we store files, create tasks, actions, we also use these programs frequently. So that doesn't work for everyone. That goes a bit further than just video calling and sharing an image. The level differs.

What could be done to improve that?

I think a bit of repetition or a risk course anyway. So a kind of deeper thinking in this for about half an hour. Next to that, you can of course also just visit your colleagues and ask. That's what I did too. I have colleagues who can explain it well.

So basically, what you're saying is suppose someone is a bit under scaled in certain digital tools. Then it is really up to the person to tell his colleague who can help him with a certain digital tool?

Yes, and if he doesn't ask himself, I often think it out and help him by doing it myself. If it bothers me that he can't do it, I'll figure it out too. Because otherwise it won't work either, but this generally works well in our team. So we complement each other, because otherwise the team output is of course also affected badly.

If there is a colleague who still needs an extra course, will that also be provided by the organization?

Yes, I think so, because we have daily bilas with our team leader. That is also a kind of learning question. So that's where those things come in. We have a cooperative academy and learning environment. Where you can do all kinds of courses paid or not paid and those digital skills are also among them. I think also Teams and such. Excel and all those kinds of programs, so you can follow them. So that is possible, but the space is there to do that.

Do you also notice within the team there is a generation gap, meaning if one is better than the other with the handling of digital tools and applications?

Yes, for some yes. I think the percentage is a bit higher. Yes, people who are slightly older they usually find it a bit more difficult to adapt or learn that because they have been used to it for years and you see the new talents, which are younger, so they have grown up digitally. Even if it is a new

tool they see those connections a little faster or they figure it out and they click and then they will find a solution. So I think that's noticeable.

And in this generation gap, the team division is divided in a way that younger people work together with the older people?

Yes, not directly, but if, for example, someone has a question. For example, every Monday we have a meetin physically and the other week also partly hybrid, so to speak. Our external parties as well Yes, sometimes someone has a question of throws it on the table. Then someone will say yes, I'll show them their doubts or I'll help you out. So that is pretty automatic.

How is team cohesion maintained or improved if some team members work from home and others work from the office?

We have been having lunch together for six months now. Where everyone is expected to be. This is normally done on each Monday of the week to be at least be physically present. That is an obligation. Those are really different reasons. Yes, so those things include that everyone is present and we also have team events, also at a knowledge level, so we all go to the organization a bit socially. Think about a quiz or something like that combined with an event or something like that. Yes, and everyone is expected to be present for that. So the team leader is a driving force in this, but everyone is also present. That makes a difference though.

Is there anything you would currently change in today's hybrid teamwork environment?

Uhm, the number of team rooms where you can meet digitally is limited in that sense on some days. Then you really have to book very early or you won't have that new equipment, so to speak. So that is sometimes a disadvantage. But that's not every day. You always have a room on Friday, but Monday, Tuesday, Thursday are just really busy days. Then most people work in the office and then you may miss a good space. So that is sometimes a disadvantage, I think. Yes, that in itself should be heard extensively, it costs investment and is not necessary on every day. But hey, if I can name one thing, I think it's a thing. Sometimes the equipment is also broken or the TV screens are broken. That is also sometimes the case. That's a flaw as well. I don't always like to use Microsoft Teams on a small screen. So that's one thing. It must be fixed it a bit faster, especially for the good tech. That it just gets done faster, that it is made. Think of a large TV screen, but also, for example, the camera.

Which team-related tasks do you recommend doing from home and which in the office?

Yes, good question. We create a lof of newsletters digitally. We are going through them, adjusting, and working on them. Yes, so that is possible to do digitally. Then you don't necessarily have to physically sit together in an office. I think that digitally it sometimes works even better. Real physical reading. I think it goes that if you want to save things together. So you can save up, work out if you

might need different posters. Hang up, put up posters. You can do that digitally too. But if you are with a large group, you just have to be physical. So one criteria I would say is the size of a group. Then you just have to be physical. That you can look at each other, save, discuss. How do you see that? How do you view it? How do you see that differently? At the beginning of the Corona time we had to go digital. So then we also did brainstorms digitally, because we basically had to. We succeed in that and the outcome was also fine. It was fun to find out then via a different way. But physically in the office for brainstorming and generating ideas. I think you just have to do it physically. So not hybrid. But yes, creating letters, newsletters, information brochures in itself that is fine via the hybrid way of work. Completely digital even.

That brainstorming and sparring that you just said, there is creativity in that, you create ideas with your team. But actually before that you have another phase. It's called the problem identification phase and this is the first phase of team creativity. This is where the problem is discovered and discussed and, if necessary, a strategy is devised for it. Can you actually tell me how typically goes within your team in the hybrid setting?

We work on a project basis in a hybrid way. So that is partially physical in the office at Company WB or full hybrid. It is almost always the same in every phase. We have an initiative phase up to the aftercare phase and there are a number of phases in between. The first problem statement we have is always in the initiative phase. It is really aimed at, yes we have a complex problem and what should we do with and about it? I'm not involved in that myself. But yes, occasionally that is physically discussed with each other in the office or in a hybrid way. So there's not really a firm stance on this in our team. Let's say, it has to be physically in the office. Those who who discuss the problem, that's not very many, just a small group, so to speak can decide that by themselves. Furthermore, various problems will of course arise during the course of the project. Depends on how big the problem is. We generally discuss major problems physically and you can of course discuss the minor problems on your telephone or via your laptop. So therein lies the size of the problem. If we have a big problem, which requires a lot of creativity and cooperation to solve it. Then we do it physically in the office. If this is a minor issue, requiring minor adjustments or discussions, then we just do it digitally, even on the phone or on the computer from home.

Is that the same when executing it, which is known as innovation?

That it can be done at home as well. Yes, basically the same, big or small. It's actually the same. It can also be partly physical. For example, if we have the first session, sometimes I just physically put it together and then you have a clearer goal and the next session, maybe sometimes just in a hybrid work method. If it's clear to everyone what we want and need to do. Then it doesn't necessarily have to be physical in the office. So it is a bit of a combination, but if the impact is large, then it is often all together in the office. So we have to switch immediately to a certain work setting. I do have to say and admit that that is very well arranged at finetuned tuned where I work.

Is there something that can be improved in this phase?

Yes, we work quite a lot with external parties and they do not have all the rights within our organization. We are not always in the office either. So they also need that kind of communication more often, but that's more of a problem with what is external than with working in a hybrid way. But then it's more a part of connection and being physically present. If we are physically present, it is sometimes a disadvantage for project-based working and then the percentage of hybrid working is just a bit higher. Which I personally don't like, but that is more linked to the external parties and factors.

How do you typically do that when you work in a hybrid team setting?

Yes, that is actually the same in all phases. The first phased depends on the size of the problem. Who is in charge of working physically or not? So that's the same in this one. Sometimes you just need some more resources that are less supported in the language. Think of pin holders and the like. Sticking post-its and the like and you have a large group. Well, then you just go physical, less hybrid that depends on the size of the problem Yeah, so there's two things. Depends on the size of the problem, but also the size of the group and often it might be okay if the problem is bigger, then the group will be automatically bigger, because then we have more external people have a look at it. So more like multidisciplinary teams. In that way, people look from multiple angles on that problem, so to speak, which helps to define the problem more clearly and also thinking about ideas or solutions for that problem. So multiple views will help. So that you can really tackle the problem properly.

Are there specific digital tools that you use, specifically for this idea generation phase?

Yes, we have the whiteboard. That's one of the most we use. This is a tool that has also been integrated into teams by now. Plus we also work in the team environment. So we also have our digital files there. So we use a Shareboard, so to speak. A Shareboard is linked to Microsoft Teams. Then we can also access our digital folder structure. Where all our documents are in from our projects. So we work in a team. For example, we have to fill in something in terms of analysis and reporting and that is then done via Teams. Where everyone has to fill it in. So those are Excel files or Word files. Yeah, so we actually link that to each other. Everyone is working in the same way or similarly in their own project, that includes certain actions. We use the actions on tasks. So that's actually one of the... yeah, I don't know if that's also the tool, but that's the method we use a lot. It's the 365 Office package. I think that is also one of our strengths within hybrid working. That really everyone works via Microsoft Teams and also the same tools in that Microsoft package.

And is there anything in this second phase, what could be done to improve it?

Yes, but what I am going to describe now is more of a point of attention to keep it sharp. How you work or continue to work this way. I work with a lot of actions and tasks, but at a certain point you also see it slackening in keeping track of or ticking off certain tasks. So you keep it sharp with each other and make sure everyone stays connected. Make sure that we let each other know digitally that

these tasks have been done by ticking them off. That is a point of attention. Otherwise double work is done, and that's not good as time is valuable.

Once you have generated those ideas together you have to select and evaluate them and that is the third phase of team creativity. How is this usually done with your colleagues in the hybrid work setting?

Yes, what you see and I think it's the same criteria. Is it also a big team or big issue. Evaluations are either done physically with the entire team or with your project team, it will be a bit smaller. Then it is often done in the hybrid setting or fully digital because the impact of the problem is just smaller. So you actually see a bit of the same there. Following criteria you already have it in the other phases of team creativity. How big is the impact? Is it smaller than it could be that someone sends a file. Which mostly implies would you like to fill it in or do you want to respond to how you experience or view this?

Do you have a specific tool that you use for evaluating and selectin ideas? For instance, these are the top three ideas in our team, this idea one?

Yes, those are those Microsoft Office tools again. Which we don't actually use for that. That is PowerPoint or Excel. We also differentiate between those office tools to select and evaluate the ideas. They are actually used the most within our team or within the organization.

Is there anything that can be improved at this stage?

I believe that our team is actually doing this very well in this stage, I must say. No, there are currently no issues we're running into with this.

So that third phase is the strongest phase within the team?

We have something linked to Sharepoint, and it saves the adjustments automatically. Only if someone saves under a different name. Then we have describe a certain statement or perspective with many different files of one document. That's not functional. There are also people today, which are less digital. Version management, that doesn't always work very well because you run the risk of losing certain information in a file. That is usually for people who work less well with digital tools and applications.

So what is the strongest phase in the team?

Yes I think the last.

And what is the most difficult phase in the hybrid working environment within your team?

Yes, good question. Uhm, would you name them again?

And how do the social processes influence creative problem solving in teams. When teams are hybrid?

Yes, it kind of depends on what topic is being discussed. Look the disadvantage of hybrid working is when someone finds the subject less interesting or something like that I see that some people also have other things to do in between and that they are not fully focused on the consultation moment, so to speak. So you have less influence on that than if someone is physically present in office. So in terms of engagement in a hybrid it depends on the topic.

What you mentioned. Do you notice that this attention of your team members is differentiating between the stages?

Yes, especially at the second and third stage. As those take longer. Our projects run for a very long time anyway. I think the second is affected most by these social processes or distractions. It obviously depends on how long that phase runs. Some phases just take a very long time. Which processes slow down the creativity phase will pull out more distraction and the chance of dropping out or inactivity is greater there. With the hybrid way of work, what I also said at the beginning is that we consult more efficiently. So less nonsense and irrelevant topic discussion, and more efficient focus and what we do with the consultation. So that's what I noticed.

How do these social processes influence creativity when teams use different types of communication? So when some colleagues use audio and others use audio plus video, while some use none of those.

Yes, good question. I do notice with uuh people who use the combination of multi-modal communication that uuh the hybrid meetings are becoming more attractive. People are more interactive and active. So not if you only have the microphone on, but also the combination of resources contribute to the interaction. Some are really good at that, they make statements or all kinds or comments, tips and other things to make the group more active digitally. That's a kind of art and using your creativity.

Is it therefore the longer a phase lasts, the more people turn off the camera or the microphone?

Yes, that's right and the rule is that people turn on their cameras. So something is said about that if that is not the case, mostly by the moderator or leader of the team.

Does one of those 3 phases also differ whether you are face-to-face knowledge sharing or digital knowledge sharing?

Uuuh, can you repeat those stage one more time?

Of course. Problem identification, idea generation and idea selection and evaluation.

So does one of those 3 phases also differ whether you share face-to-face knowledge or digital knowledge?

Yes, I'm leaning towards the second again. In themselves, all three have an influence, but I still think that the second has the greatest influence, because it lasts the longest. Is there one that shoots above the other? I am really wondering about that. Uhm, yes, but it's not related to hybrid teamwork. It's more that there are other factors that complicate it, but not the hybrid work setting.

Maybe then I can ask the question from a different angle. Which phase do you think has been most influenced by digital technology?

I think the second is the most important, because then you really want to tackle the problem, but how is not clear yet and often a long and slow process. Because it is not always clear, the reason why digital technology also has the most influence on this is because when something is not clear and it takes a long time then there will be some kind of friction in the team, which doesn't help when working hybrid or digital. People tend to understand each other less when they are not communicating face-to-face.

Do you also have self-evaluations about these three phases within your team?

Yes, we do and we do it consciously. Anyway, we have quite an evaluation session, so to speak. Yes, so we do, what could be better. What should we do and what should we not do? Uh, yes. Only we don't have influence on everything, uhm, as quite a lot is being asked from the top. So a lot of it is also in their hands, but self-evaluations in theme context is present in all three phases.

Do you also notice, for example, that there is a difference between working physically and digitally with your colleagues that affects your psychological safety or confidentiality to share or communicate something?

Yes, I do notice that, but that is mainly personal. Physically you will share something faster than, for example, when you work hybrid or you will share it in a shorter way. You are then more focused on the task than the psychological part. Physically you think, ooh yes, you have to say something about this. It's just easier. Digital is just another step beyond. It adds a different level of complexity to communicate, I would day. It feels a bit bigger. Yes, so usually the personal question can be different for everyone. What you notice is that you approach someone more quickly or you communicate more quickly about a problem if it is in the office than done digitally. You should call your manager and then you might start thinking. What if he is in an important meeting or maybe it doesn't work out at all or maybe it's a really stupid question and you can't see his facial expression. You notice that you are slightly less inclined to ask for knowledge or to introduce problems. It's just

a bit easier physically or when asking a question you sit together then you would address that in the meeting and schedule an appointment.

Conflicts can arise within each team, especially when solving major problems. Think about chaos or confrontations. Does this also happen in the team in a hybrid work environment?

Yes, we sometimes have quite a few different interests and we do not always agree with each other. So there are those conflicts or different interests, yes.

How is this resolved within the team?

For that kind of thing, we will plan something physical in the office, if we notice that there are conflicts within the group or different interests. This is necessary for these kind of social problems or conflicts. Otherwise it might escalate even further. Unless there is really no other way, we do it hybrid, but we do it anyway at the office, to resolve these conflicts. That is often better if you can look each other face-to-face, in the eyes, noticing the facial expressions, so that the social conflict or problem can be solved better and faster. The manager usually proposes this and often everyone agrees. So this is a conscious choice.

Do you also notice a difference in support receive from your colleague during hybrid or digital work?

Yes, that's true. It has to do with several things. One is motivated to work digitally, that person or group can then work digitally. The person wants to provide support, but is unable or unable to do so. There is also a piece in the sense of what I just said. In the sense of working digitally or does he find it less important than I think it is. Of course everyone has a different interest, a different working style or working method. With digital working, some certain working methods also emerge a little more strongly. But I do like the work with structure and someone else, for example, is a lot less in that sense. So I also like having a structure when working digitally and yes another finds that less important than the other or does it bring somehow differently. So yes, it does depend on different parts of the task or job, but we also have an ICT department that supports us in this. Also because it is their job, of course, but they always pick it up quickly. So if a colleague or team member has too little support in terms of digital possibilities, this will be raised within the ICT department and they will help them further.

Can you give a good example in which the hybrid work environment has led to a successful team project?

Um, yes. We make customer journeys, we also made one in the Corona time. The customer journey is considered from the customer's point of view, so from the resident's point of view. For example, what are we going to do with your home. Your home is ready and all the steps in between as well. We then did the first sessions, sparring sessions, digitally. Uh, with the team and poster pasted and

things like that and brainstormed and that eventually led to the result being the same as we did it physically in office. So the quality was less personal and physical, but the customer was enthusiastic and participated actively in the digital sessions, so that contributed to the customer's final journey, so to speak. So that was a good example in itself. Yes, we also have a bit of development with the team and what are your learning goals and have conversations with our colleagues and that was also digitally recorded. So you have to fill it in yourself. We used PowerPoint for that. Yeah, so that's really a piece on the team process and project output.

Can you give an example of a less successful team project in the hybrid work environment?

Uhm yes, good question. Of course we have many tenders in which we look for a contractor. We also had to do a bit more digitally in Corona time. That was also a new way of tendering, and a new way of working. A very large tender, many millions to a fixed chain where partners have to come. That was largely done digitally in the beginning. That is going pretty well, despite it being digital, but during this project there was a lot of time pressure and it was a huge task. That does something to your team somehow and you also depend on the quality of your work pieces. Despite the fact that the product is growing quite well, only I think that we are of course talking about the size of a project in such a way and that you can do that better physically in the office together for the quality. Ultimately, for the team output as well. So I thought that was a less successful example of a team project.

Thank you for your answers so far, Participant 11. I would like to ask you one last question. Uhm, how do you expect the hybrid work environment to evolve with the next decade?

Yes, good question. I think I can tell you that in a good way. Um, yes I think the hybrid way of work will stay anyway. I think it will remain normal. Maybe it will become even more or more features will come or maybe even become a requirement. It will also be expected with the skills that you have when applying for jobs sooner or later. That is one thing that is certain and that technology is of course only improving. So I don't think there's a way back there. That you go back to work fully in the office. Of course that depends on your job position, but still those digital skills I do think will be weighed more heavily in 10 years than it already is now. More will be expected from you. On the other hand, this is also immediately worrying, because you lose your social connection with your colleagues. This connection with your colleagues creates creativity. So that's a concern.

Yes, we have come to the end of the interview. Hope you enjoyed it and found it interesting to participate. Thank you for your answers and good insights you provided. I wish you a very nice weekend!

Thank you. Anyway, good luck working out your results.

Thanks, I will succeed, but it just takes a lot of time	e, particularly the transcription. But i
will work out.	

It's for a good cause.

Exactly, you get it.

Interview Transcription 12

Hi, thank you for doing this interview with me. Could you briefly introduce yourself? So for example, what exactly you do at Company WB, your job role and what kind of teams you are dealing with

Yes. My name is Participant 12. I am a team leader in operational management and that is one of the 11 departments within WB. We do the second line of work. We help and assist first line workers with their job. We know the job field like no other, inside-out, and if we don't know it, we hire external experts who do know it, but of course that external party does not know what our business operations are made up of. The operational management consists of 5 teams. I manage 3 of those teams. The teams consist of: The administration department, the purchasing department, the Legal Department, the Property Information Department, the Office Management Department, and the facility support department is also part of the office management department. So everything that has to do with the building, the vehicle fleet and electrical installations. I lead 3 teams namely: the office management and facility support department, the Legal Department, and the Property Information Department. Those teams consist of 25 employees in total, all with different kinds expertise and skills. We have lawyers and legal staff, management assistants, management assistants, facility staff analysts and specialists in the field of data, the latter being represented in the Property information department. We have people who are lowly educated to people who are highly educated. So it ranges, from MBO, to bachelor and university level. Our tenants are represented in a complaints committee that we also have. We are a large housing corporation. We have almost a 34 complexes, homes, flats, schools, offices and community centers. We also work with schools for student housing. So that's a brief introduction of mine and what I do.

Okay, that's a very clear and comprehensive introduction. Thank you. You said you lead 3 teams from different levels, and with different educational backgrounds. What is your task or function within these 3 teams?

My job is to coach and develop the employees. It is the cooperation between the teams in both the levels of wide and depth.

Much of your work must consist of team-related tasks then.

Yes, indeed. About 80% of my work consists of team-related tasks and leading those teams, 20% consists of other activities such as administration and content preparation, people development, ensure that the team is at a professional and good knowledge level. So I coach three teams and the departments themselves also have team leaders who have substantive knowledge of all the work that needs to be done. We have chosen this setup to ensure that during my coaching there is not too much focus on the content. So we have team leaders who take care of the work content and team leaders who take care of coaching the employees. Do you understand?

Yes, I do. Interesting.

I use to be an manager, where I myself was also an expert in terms of content, and that is also a pitfall. You have to be careful not to spend too much time on substantive work. Otherwise you will

hardly have time for the coaching work. I really do want to be a servant leader. I don't need to be in the spotlight. I like to help, serve and assist others. I like to think more about the 'we' feeling.

Nice. Glad to hear that. Same here. I also like help people to get the best out of themselves. You mentioned that you coach a lot of teams and employees. How does the hybrid working setting affect your leadership style?

I often ask myself the same question. I am easily accessible for other people. Personally, the hybrid work setting actually has no effect on me. I myself have been working hybrid for about 1 year before corona. In the beginning I had to find my way but not anymore. When I work from home, I want to make sure that there are no small children running around the house. Within the "Company WB" they still have some difficulties finding their way in this. We want to see for each person how hybrid working is going for them. During Corona it was no different and people were forced to work completely at home. Some employees suffered from this, both physically, social and mentally. Nothing was arranged at all. At a certain point we started working hybrid. A few people worked in the office. A few people then worked at home and we alternated between those two. Special walking directions in the company to prevent people from coming into contact with each other too much, which could increase the risk of Corona. Everything was constantly cleaned. The chairs, desks, of course, all of this had to be facilitated by our department. So we started working more and more with digital equipment as more people where working from home and hybrid. At the time, for example, we used the Zoom application and Microsoft Teams to hold meetings. We quickly noticed that people were not used to work with Microsoft Teams or Zoom. So adjustments were necessary. We couldn't prepare it well, could we? We had to work at home from one day to the next, but the activities continued. I already arranged it well because I already worked hybrid. The company I worked for before Company WB was already working hybrid before the Corona time.

What do you mis when you are working from home?

Of course you don't have the dynamics around you. So that you meet your colleagues spontaneously. So that you can spontaneously discuss something with someone, or just be social for a while. The conversations at the coffee machine. In Corona time we had these coffee dates and these Kahoot quizzes and Friday afternoon drinks online and stuff, but that's not nearly as much fun as having a personal chat or social gatherings physically, not even as much fun as a simple chat at the coffee machine. Now we don't do that anymore. Instead of working completely online an digital, we now work hybrid. We started with this after the Corona pandemic. We started a special project for this. In this project we have made the assumption that approximately 60% of full-time employees and 40% of part-time employees are in the office at the same time. People always know where I am. I have an open online calendar where they can see where I am. When I'm at the office I read my mail as little as possible because I can do that at home too. I want to be as transparent as possible. If I want to work things out, I do it at home. In my days at the office I want to be available to people as much as possible. That makes me feel good.

Yes yes exactly.

But you have to guard that balance yourself very carefully and effectively.

Yes. exactly, so you as a manage and as an employee have the freedom and responsibility to organize the hybrid work yourself?

In fact, we made a written agreement with our management. In which we carry out the project and how we coordinate this. The employee is always in control, so we expect the employee to take control of their own work. How they organize the work and if they need help with that, they can ask for advice. But we don't accept people saying, why don't you hurry up? Hello, yes, I am waiting for you or I expect an answer. No, you are always in control of your own work, so if you cannot handle it or need something, you simply ask for help.

Yes. So they should ask clearly when they need something. That is an important point you make.

Yes, social factors sometimes play a role in the hybrid or virtual work environment, and those can be quite complex.

Does it happen that sometimes you don't have all the physical components available that you need at home and what do you do about it?

We have a partnership with a company called "Second Office". We have an agreement with them that they facilitate our employees in all the physical components and resources that they need. I have a hybrid work agreement with every employee of my department. In this hybrid employment contract is stated whether you have a situation at home that it allows you to work from home. So whether you have the space, if you need to have a desk, an office chair or an extra monitor. Laptop and telephone are already devices that employees receive as standard when they come to work at our company. In addition, it is checked whether the workplace meets the ARBO requirements.

So the necessary components and the checking whether the working environment is suitable is carried out is done by the company called "Second Office?"

Yes, exactly. Depends on what you need and when I look at my own situation. I have an office with two desks. My husband also regularly works from home. I also have a second Large screen, which is very useful and practical I would say.

Yes. I reckon that as I also work with two monitors, especially when I work at my thesis (chuckles). So you've got it right at home. How is it arranged at Company WB itself, so at the office?

It is arranged really well. We have built a user friendly environment and people respond well to that.

But maybe there's something else you can say about the hybrid setting. Maybe something needs to be improved there?

I think we have designed the building as effectively as possible. Of course we didn't have all that good technology and equipment before the Corona pandemic broke out. So when everyone started coming back, we made sure the office was ready for that. We have also been inspired by IBM, for

example. IBM has been doing hybrid work for a long time. I got my inspiration from my previous employer in the energy sector, so I also already what is working and what's not working. The office workplaces are furnished according to the ARBO requirements. We also have closed offices where you can work alone. These are especially for people that want to work with someone in Microsoft Teams from the office. You may only use this place for that purpose. We also have larger spaces, which we call 'silence coupes'. We have indicated this with templates on the window, so the template says "Here you work in silence, but with 4 colleagues at the same time." If there are more than 4 persons, you must book a meeting room and we also have a few rooms where you can sit together. All office spaces are with transparent glass. Finally, we also have office gardens where you can sit with 12 employees. We also have special facilities in the meeting rooms that are equipped for hybrid teams. For example, a meeting camera. You can then invite your colleagues who are at a different location via Microsoft Teams. For example at home. They all see the people sitting in the meeting room. The camera automatically focuses on the person sitting in the conference room. That is very user-friendly.

Yes. That, sounds really cool. I can really you have thought it all out. But for you, did hybrid working changed your leadership style?

No. for me it remains the same. But the technology at Company WB helped me to make my leadership more effective. So that's the ergonomic design of "Company WB" that also takes care of that.

Yes, that technology, can you give some examples in how you made hybrid working more effective?

Yes, well, what is very important is that you keep an eye on the individuals, so in addition to all the technical things that you can accomplish and the facilities things, it is very important that you take into account the personality of someone. Some employees are more self-absorbed or more introverted than other employees. Some need more attention and confirmation in what they are doing than others as well. Those employees are most probably be in the office more often, because that simply works well for them. So yes, you always have to take the human aspects into account. That's why we said, working from home is not mandatory. We always have room for you at the office. Now on the technical part how to make hybrid working more effective. We also have one application on our work phone in which you can see exactly which of our hybrid workplaces or silent coupes are free. This is measured with sensors under the desks. These sensors measure heat. When the room or spot is ocuppied , it turns red, it will turn to orange when the desk is vacated. It turns green after 1.5 hours again, which means no one has been seated on that spot or room for 1.5 hours. If this is the case the sensor turns green, and somebody can see in the app if the room is available. So you can see remotely from home or where ever you are if there are any private spaces, offices and hybrid work rooms available at Company WB. If I go to the office now, can I work there without driving for nothing to the office. Of course I first have to check if there is a spot available, and we can book those spots as well. So it is easy to make the right decision whether you come to the office or not.

As a coach, what have you done to make the hybrid work environment more effective?

Well, I have made agreements with the teams about what people like and how often we want to see each other. We have put that in a manifest and that manifest can always be adjusted with new agreements. So something .can be added in the hybrid work model that does not function properly or if anything turns out to be detrimental to the team or the vast majority does not like it this manifest can be altered or even some parts can be removed. It is also always nice to see that through advancing and exchanging insights, that sometimes, a team is saying. "We always do the work online and the meetings on Monday morning because we liked it this way but maybe it's nice or better that we do it more often at the office and that we have a have lunch all together at least once or twice a week. Well, then that's an agreement which we put in the manifest for ourselves in order to sharpen it up again and say okay, we will organize it like this from now on and then everyone commits that we will also be in the office on those days. I think it is especially important that what I said in the beginning, that we are second line workers. We support the first-line workers in the organization, so we also have to work a lot with the first line and we especially need to be connected with them so we have added value for them. We don't have places in this building where we can sit together as a department. We are just there when and where we are needed. Yes, and that can be different every day. The disadvantage is that you find each other less easily. It is a large building with many floors. It may just be that team members are all working on a different floor and then you don't see each other, but I do see the person where I have to work for that moment. We'll send a team chat message to have lunch together. After that we often go for a walk together.

Okay, so there is a good combination used in order to increase the team cohesion or the social connectedness,?

Yes, we also organize events to maintain or improve the involvement of team members in a hybrid environment.

What are those events?

We regularly have a "soapbox" session with a certain theme. People can share their knowledge during such a session. But that is for everyone within "Company WB" and that takes place in the company restaurant at the end of the day, so you can also enjoy a drink. Many colleagues and new colleagues come to these sessions. We also do "blind date" sessions over lunch. You don't know who you will be sitting with at the table. So yes, those kinds of initiatives do take place and the great thing about it is that this is often organized by the employees themselves.

Are there elements that don't work well in a hybrid setting?

Yes, there are clearly certain elements that don't work well in a hybrid setting. I find it more difficult to work with new people in a hybrid setting. Interns, for example. I find it very difficult to coach if they do not yet have their own role or activities. As a coach you have to pay extra attention to this because it is difficult for new people or interns to find their way within our company. You have to make sure that these new people are properly trained, which is why I usually meet these people physically. We often meet with new people in the office for the first 3 months so that they can perform their tasks properly under supervision. During these 3 months we have a 9 day "safari". In

these 9 days I teach them to know the whole company supported by training courses and I invite people with different disciplines from within my team to tell about their most common work activities "Company WB". As a result, new people get to know the company better. When people are used to working for us after 3 months, we start working from home a few days per week.

You said for certain job activities you have a preference to work from home because you won't be disturbed. But which team-related tasks do you do at home and which do you do at the office?

Not really. It is custom work that you fill in together with your team. I can do a team meeting online just as well as at the office, but we still meet in Microsoft Teams because then I can have several meetings in one day. We occasionally do that in the office environment too, especially if we have something important to discuss and we don't want people to be distracted by turning off their cameras and doing something else in the meantime. The camera remains on during the meetings. There is never a discussion about whether or not that is necessary, everyone just does it. If the camera is turned of I will say: "Hey, I don't see you. What's going on? And normally that person turns on the camera. In this way, I am not too hierarchical. I usually do 1 on 1 conversations or coaching conversations online.. I have a lot of those 1 on 1 conversations. I don't find it a problem at all to do this online, except if there are things that make you think, yes, someone is not feeling well here, or I just want to have a different feeling than through the screen, that person can always indicate and has the opportunity to meet physically in-office. Those are those appointments that I often do at the office or outside the office, and then we go for a walk in the park or something, because sometimes it's just nice to walk during a meeting. I am then visibly understandable and approachable and that is very important to me.

Does the hybrid work environment positively influence collaboration and creativity?

Yes, because it gives people a bit of freedom in organizing their work. But if 9 out of 10 people really say I want to work in the office, then the 10th must commit to working in the office. The work is positively influenced and that ultimately leads to a better output. I often hear from people that they have found the right work balance in hybrid working. They used to be 100% at the office and couldn't do something at home in between, such as throwing some laundry in the washing machine or walk wit their dog or doing groceries. That's all possible now. It's about someone delivering output that is asked of him of her, which doesn't always have to be between 9:00 and 17:00, right? Okay, there are deadline but how you meet those is entirely up to you. It will be different if, for example, you start bothering colleagues with work in the evening. Involving colleagues in your work should be done during office hours. It's fine that you do a few groceries or a walk during the day and make up for your time in the evening, but don't bother anyone else. If you manage to find the balance in this, then hybrid working has a positive influence on your work and also on your private life.

This interview is mainly about problem-solving in teams in a creative way. This consists of 3 phases. The first one is, problem identification. So in this phase, the problem is identified and you make a strategy for it. Can you describe how does this process works in a hybrid working setting?

What I have noticed in the teams that I lead is we hardly make any regular phone calls with each other anymore. Now we use Zoom and Microsoft Teams a lot more. This has really changed now as we work much more with video and I am a big fan and proponent of working with an agenda. An agenda for team activities as well as individual ones. That you also discuss from which role you sit at the table and what your added value will be and that everyone is prepared, you know. Then you can come to prepared and focused meeting with an attention to detail and what I really want is that after the last meeting point there is always feedback on the meeting process in order to make them more effective. So someone gets a feedback role. I want to have an extra pair of ears and eyes as this is very important in problem identification. If we don't start the process right and no one gives feedback then we might have made a very misidentification of the problem and we lose a lot of time and the problem is not solved. I am results oriented, I also want to know what the purpose of the meeting is and if the purpose is: We are going to identify a problem, then we are going to identify that problem and not talking about cows and calves.

Does the size of your team also influence the process in a hybrid area?

Yes, if that is with 1 large team, then you better come to the office in a large meeting room. We have large meeting rooms and smaller ones for hybrid meetings.

And what about the seriousness of the problem you want to identify?

Yes, exactly, and now you actually hits the nail on the head. So if there is a big problem, we need what we need more creativity to solve these problems. Then we come to the office for that and I want to see that everyone pays attention to that. For big problems we discuss those in the office. We often do smaller problems online via Microsoft teams.

So more creativity for big problems, we call that radical creativity. That's when you sit down in the office to discuss and brainstorm so that ideas can be created. Ideas for the smaller problems incremental creativity is often needed. So based upon the size of the problem, you decide to work from home, in the office or hybrid?

Yes Yes. Exaclty. Look, you can stick all kinds of yellows on walls and that kind of techniques, but sometimes it's just more convenient to have a flipchart and then creatively unravel problems together. Then it's just nice when you're together. We use the MIRO application in the digital or hybrid work setting. This makes idea generation easier and more effective. But for identification of major problems, we get together, and use flipcharts. It is necessary with big problems that we can look each other straight in the eye and to avoid any escalations within the team. As those tend to happen a bit more often when there is a big problem.

I see. It is completely normal when chaos or social confrontations occur. Do you also have self-evaluations about those in the team?

Yes, this was the manifest I was talking about that covers those aspect as well, but we also discuss that in our weekly meeting if something went wrong or when there is a misunderstanding.

Okay, thanks. Interesting. Then we have come to the last phase of team creative problem solving, which is called idea selection and evaluation. Can you say how this goes and works in your team in a hybrid work environment?

Yes, sure. For example, an evaluation of an annual accounts process. Then our "Company WB" for accountants will be questioned by accountants from an external organization. Those processes can sometimes take half a year. That comes back every 6 months in a yearly cycle and if you want to evaluate that process, you need a lot of disciplines for that. If there are problems that we need to properly identify, then generate, identify and evaluate solution ideas, we can do that better in the office because so many people are needed. You can then do the evaluation in a room and determine together how we will continue with this in the future and then you can work in teams to work on it. Subsequently, those teams can also continue online, right? We have meeting rooms with video equipment to meet with colleagues online, but I don't like that because during an important meeting you forget about these colleagues and you only focus on the people in the meeting room and this is only done once half a year. So for this kind of occasion we agreed that we all meet in the office to discuss and evaluate those new ideas or initiatives.

Okay, and which of these 3 phases we discussed. So problem identification, idea generation and idea selection and evaluation has the greatest influence on hybrid working?

I think that working hybrid affects all the 3 phases, but especially phases 2 and 3. Once again for major problems, we meet physically and we only start working hybrid when we have finally selected and evaluated the best top 3 ideas. The application is further elaborated in the teams and that can be done hybrid. So with big problems, we do all 3 phases in the office. We do small problems with hybrid teams of which phase 2 and phase 3 usually take place in hybrid teams.

Do you guys have any of these specific 3 phases that we discussed? Do you also have evaluations of that within the team?

Yes, but not always. I think it is important to evaluate. What went wrong, how do you think we handled the problem? Have we learned anything from it? We must be a self-learning organization. So feedback is very important. Do you understand what I mean or not?

Yes, I do. It is also more based on the situation if I understand correctly?

Yes. It really depends on situation.

All right, I've asked a lot of questions and I know you have another meeting in a few minutes. So I'll keep it short. Do you notice that there is a difference that some people do not feel completely socially safe when they are online or physically in the office.

That is different. I do notice that especially new people find it difficult to participate directly online. You see them thinking of can I say this or that. We've talked about that before. Others have that in the office because they feel all the attention is focused on them. But usually it's okay.

Are your tools or applications aimed at working fully hybrid?

Yes, in principle. We can also use hybrid tools that we use in the office. But sometimes it's nice to get together at the office and use a flipchart and real yellow stickers. We then take pictures of that so that we also have them digitally.

It's almost 4:30 PM. Thank you very much for helping me with the research and answering all of my questions. Good luck with your work at "Company WB".

Thanks and good luck with your research.

Appendix 7: Coding tree

Parent code/child	Number of	References	In-depth (participants)
code	participants		
Team creativity			
Problem identification	6	13	1,2,3,5, 6,10
Idea generation	10	18	1,2,3,5,6,7,9, 10, 11, 12
Idea championing	11	18	1,2,3,5,6,7,10,11,12
Most affected stage	8	13	4,5,6,8,9,10,11
(digitally)			
Most affected stage	9	16	2,3,4,6,8,10,11,12
(socially)			
Incremental creativity	4	7	6,9,11,12
Radical creativity	6	12	2,6,7,9,11,12
Group-assessments			
TC evaluations	6	9	4,6,7,9,10,11
Physical conditions			
In-office	4	8	6,8, 11,12
Home office	9	25	1,2,3,4,6,9,10,11,12
Social conditions			
Support	6	8	3,6,7,8,9,11
Psychological safety	4	6	1,2,4,11
Leadership	5	10	5,6,9,11,12
Age	5	10	3,4,6,9,11
Size	4	4	4,6,11,12
Training/Support	4	5	4,6,11,12
Future	3	3	3,6,10
recommendations			
Evolution	2	2	7,11
Team projects			
Successful team	10	10	2,3,4,5,6,7,8,9,10,11
projects			
Unsuccessful team	10	10	2,3,4,5,6,7,8,9,10,11
projects			
Work settings			
In-office	10	19	1,2,3,4,5,6,7,8,10,12
Working from home	8	23	1,2,3,4,6,8,10,12
Hybrid	7	16	2,3,4,5,6,8,12

Advantages	1	1	11
Flexibility	9	12	1,2,3,4,8,9,10,11,12
Work life balance	4	6	3,4,8,12
Disadvantages	4	7	8,9,11
Geographical	3	3	1,8,10
dispersion			
Quality	2	2	1,4
Opportunities			
Digital tools	12	39	Every participant
Physical/digital	4	5	4,6,11,12
(hybrid) resources			
Effectiveness	8	19	1,2,3,6,8, 11,12
Team preference	4	5	1,4,8,9
Threats			
Multi-modal	6	11	2,6,8,9,11,12
communication			
Social processes	5	9	6, 8, 9,11,12
(face-to-face versus			
digital interactions)			
Decision-making	3	3	4,6, 8
power			