



UNIVERSIDADE
CATÓLICA
PORTUGUESA

**THE IMPACT OF VIRTUAL ENVIRONMENT
ON FOSTERING INDIVIDUAL'S CREATIVITY
BY TRANSFORMATIONAL LEADERS**

Dissertation to Universidade Católica Portuguesa to obtain a Master's
Degree in Psychology in Business And Economics

By

Lucas Stemmler

Faculty of Human Sciences

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Dissertation written under the supervision of Prof. Dr. Leonor Santos
Almeida

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Abstract

Title: “The Impact of Virtual Environment on Fostering Individual’s Creativity by Transformational Leaders”

Author: Lucas Stemmler

Keywords: *individual creativity, transformational leadership, virtual environment, fostering creativity*

The precise use of several transformational leadership techniques greatly develops individual creativity and assists individuals in working in a creative and forward-thinking manner. The rise of the Covid-19 pandemic, as well as the trend to home office working patterns, appears to make the transmission of creativity more challenging. It is therefore critical to comprehend how the interaction between leaders and employees relates to the transition to the virtual environment. The goal of this dissertation is to answer if the virtual environment impacts transformational leaders in fostering the creativity of individuals. This leads to the research question:

"Does the virtual environment influence transformational leaders in fostering individual creativity?"

In order to answer the research question, a mixed method approach was conducted, which includes a qualitative and a quantitative research approach. More specifically, the qualitative research method comprised 10 expert interviews with transformational leaders from various internationally renowned companies. The quantitative research, which was conducted with the help of a survey, focused on the answers of 453 employees (N=453), which measured the level of creativity of the employees through the influence of transformational leaders and the virtual environment. Recommendations generated from the expert interviews were integrated into the questionnaire to determine whether they are also effective from the employees' point of view.

The expert interviews and the survey findings clearly illustrate that a virtual environment has an influence on transformational leaders in terms of fostering individual creativity. The effect might be either positive or negative. The virtual environment challenges may be overcome or even improved with the correct technology, methodologies, and tools.

Resumo

Título: *"O Impacto do Ambiente Virtual na Promoção da Criatividade Individual por Líderes Transformacionais"*

Autor: Lucas Stemmler

Palavras-chave: *criatividade individual, liderança transformacional, ambiente virtual, fomento da criatividade*

A utilização precisa de várias técnicas de liderança transformacional desenvolve altamente a criatividade individual e ajuda os indivíduos a trabalhar de uma forma criativa e com visão de futuro. A ascensão da pandemia de Covid-19, bem como a tendência para padrões de trabalho em casa, parece tornar a transmissão da criatividade mais desafiante. Dessa forma, é fundamental compreender como a interação entre líderes e empregados se relaciona com a transição para o ambiente virtual. O objectivo desta dissertação é responder se o ambiente virtual tem impacto sobre os líderes transformacionais na promoção da criatividade dos indivíduos. Isto leva à questão da investigação:

"O ambiente virtual influencia os líderes transformacionais no fomento da criatividade individual?"

A fim de responder à questão da investigação, foi realizada uma abordagem de método misto, que inclui uma abordagem de investigação qualitativa e quantitativa. Mais especificamente, o método de investigação qualitativa incluiu 10 entrevistas de peritos com líderes transformacionais de várias empresas de renome internacional. A investigação quantitativa, que foi realizada com a ajuda de um inquérito, centrou-se nas respostas de 453 empregados (N=453), que mediram o nível de criatividade dos empregados através da influência dos líderes transformacionais e do ambiente virtual. As recomendações geradas a partir das entrevistas dos peritos foram integradas no questionário para determinar se também são eficazes do ponto de vista dos empregados.

As entrevistas dos peritos e os resultados do inquérito ilustram claramente que um ambiente virtual tem influência nos líderes transformacionais em termos de promoção da criatividade individual. O efeito pode ser tanto positivo como negativo. Os desafios do ambiente virtual podem ser ultrapassados ou mesmo melhorados com a tecnologia, metodologias e ferramentas corretas.

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Table of Abbreviations

AIT	Advanced Information Technology
HR	Human Resources
MLQ	Multifactor Leadership Questionnaire
US	United States
VBA	Visual Basic for Applications

1 Introduction

In today's competitive business world, hard work alone is not enough. As innovation is given top priority, companies are increasingly turning away from a pure fixation on short-term results and productivity toward a long-term and more balanced approach. More than ever, it is creative solutions that lead to the desired success in the long run.

It is considered a key competency in many professional disciplines and is widely seen as a guarantee of success. There are several occupations where creativity is an obvious component of the work, such as designers, musicians, and architects. But, however, creativity is far more widespread and permeates every business sector. Companies are becoming more and more attentive to creative work. It does not matter whether it is an established corporation or a small or medium-sized enterprise. They all must find ways and methods to generate ideas and innovations within the company. The best idea generators are often the company's own employees, but the path must be established to bring out their imaginative spirit. To release and use this potential, spaces for creativity and innovation must be created. Creativity as such cannot be imposed. It is an emergent phenomenon and requires not only explicit but also implicit knowledge. The use of this knowledge and the control of creative processes is a specific art. It depends especially on leadership, skillful variation, and the right dose of self-organization and freedom, competition, and team play.

As Antoine de Saint-Exupéry said: *"If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea"*, he demonstrates emphatically why people should be encouraged to pursue their goals rather than being coerced (Saint-Exupéry, 2021). The same applies to creativity; creative work must be encouraged and brought to each employee. Creative thoughts and patterns are present in employees, but often need to be stimulated or trained. Whether or not individuals express creativity, often depends on the leadership and their abilities to foster creativity. Employees must believe that initiating is important and that their dedication is valued.

Furthermore, it has been proven that, due to many characteristics, transformational leadership is one of the most essential leadership styles to stimulate the individual creativity of an employee. Due to the Covid-19 pandemic starting in 2020 and the ever-increasing shift to home office working models, it is important as a company but also as a leader to adapt to

unforeseen circumstances in order to survive in the working world. Working in a virtual environment is becoming increasingly important and so are the adaptations of transformational leaders to continue to successfully foster the individual creativity of employees. Therefore, the aim of this study is to investigate whether the virtual environment has an impact on transformational leadership in fostering individuals' creativity, as there are some gaps in the current research, that this dissertation aims to fill. This approach leads to the main research question:

"Does the virtual environment influence transformational leaders in fostering individual creativity?"

In order to answer the main research questions, chapter two outlines theoretical fundamentals and academic approaches in regard to creativity, transformational leadership, and the virtual environment. Chapter three then discusses the methodology of the research to show how the research was conducted. The author carried out a mixed-method study that included a qualitative and a quantitative research method. Chapter four, which focuses on the findings of the data obtained, is then complemented by chapter five, which focuses on the evaluation and interpretation of the data. The results of the study are then summarized in chapter six in order to determine whether the virtual environment influences transformational leaders in fostering individual creativity. Lastly, limitations and recommendations for further studies are as well included in chapter six.

2 Literature Review

The following chapter of the master's thesis outlines the theoretical fundamentals and academic approaches in regard to creativity, transformational leadership, and the virtual environment. The different thematic points and information are obtained from many different sources, such as journal articles, books, papers, and various research.

2.1 Creativity

This part of the chapter is divided into four main aspects to understand the context of creativity for this dissertation. First, the term creativity is introduced with several definitions by various authors. Then the importance of individual creativity and creativity in the working world is discussed. The part ends by demonstrating the factors that influence individual creativity in the workplace.

2.1.1 Definition of Creativity

"Creativity is seeing what others see and thinking what no one else ever thought" (Einstein & Stachel, 1987). This quotation by Albert Einstein illustrates how intricate and complex the topic of creativity is. It encourages individuals to go beyond their limits and do an innovative and new approach. But what exactly does the term "creativity" entail? The term creativity comes from the Latin word "creare" meaning to create, to give birth to, or to generate (Still & d'Inverno, 2016). There are numerous definitions of creativity in the scientific world next to other different conceptualizations in popular science publications and non-scientific guidebooks. Many phrases and adjectives, such as new, original, or uncommon, are used often throughout the definitions.

According to Joy Paul Guilford, a factor-analytical personality and intelligence researcher, creative personalities are distinguished by heightened sensitivity to problems. The individual's thinking is quite dynamic, which means that they are able, for example, to find extremely many uses for a "stone brick" within a very short time (Guilford, 1967, 1975). Creativity for him serves as a concept for identifying exceptional solution procedures for problems. In correspondence with this belief, he argues that he has often defined a person's

personality as the so-called unique pattern of traits. The trait is a relatively persistent way in which individuals differentiate themselves from one another. Aptitudes, interests, attitudes, and temperamental attributes are all wide categories of behavior traits. The creative personality is thus determined by the patterns of attributes that distinguish creative people (Guilford, 1950). According to this interpretation, Joy Paul Guilford laid the foundation for modern creativity research.

The psychologist Mihály Csikszentmihalyi, however, describes in his book “creativity” where and how creativity arises and how individuals can succeed in promoting and developing their own personal creativity (Csikszentmihalyi, 2007). In his approach, creativity manifests itself not through an uncontrollable flow of ideas, but through the long-term transformation of a certain cultural area (Nakamura & Csikszentmihalyi, 2014). Csikszentmihalyi analyzes the histories of persons who have pioneered such breakthroughs to determine which laws govern such "creative lifestyles" (Csikszentmihalyi, 2013). He defines creativity as any action, idea, or thing that changes an existing field or transforms one into a new field (Csikszentmihalyi, 2014). Furthermore, a creative person is one whose thought, or action changes an existing domain or creates a new one. It is important to understand, however, that a domain may only be changed with the explicit or implied consent of the relevant domain (Csikszentmihalyi, 1999; Lopez et al., 2018).

According to the definition of the German creativity researcher Helmut Schlicksupp, creativity is the ability of human beings or collaborative systems such as a group or network, to generate compositions, products, or ideas of any kind that are new in their basic aspects and previously unknown to the creator (Geschka et al., 1976; Schlicksupp, 1995). Schlicksupp qualifies the output of creative action by stating that it must be more than a linking together of what is known and must not consist only of pure imagination, but it must also be useful and expedient, without being limited to immediate practical application (Schlicksupp et al., 2011). Furthermore, Schlicksupp's perspective on innovation is highly intriguing and noteworthy, as, from his point of view, innovation is inconceivable without creativity. Creativity not only generates ideas but also directs the whole process (Deuerling, 2016). Innovations are complex activities that include obstacles that cannot be met only by

intelligence, knowledge, and logic. These issues need the capacity to think creatively (Schlicksupp, 1977).

Although the three researchers have distinct definitions and even perspectives on creativity, their methodologies are very similar: Creativity is the capacity to think and act outside of the box and to come up with fresh and unique ideas, techniques, or items. It goes beyond thinking and acting, recognizing the limitations of the present, and attempting to improve it.

2.1.2 Importance of Creativity

Creativity entails more than just painting, making music, or acting (Glăveanu, 2010). It is represented in how people think, behave and plan, and it is necessary for the development of individuals as well as society as a whole (Russ, 1999). The significance of this outstanding ability is frequently undervalued and thus discouraged. The research article "Effects of Coaction, Expected Evaluation, and Goal Setting on Creativity and Productivity" by Christiana E. Shalley underlines, that performance and productivity, which are partly influenced by the level of creativity, are highly appreciated from an early age in kindergarten, school, and university (Sawyer et al., 2003; Shalley, 1995). It is important to foster children's curiosity, inventiveness, productive thinking, and imagination at a young age to develop and use their wealth of ideas and intelligence. (Urban, 1991). For example, when children are observed, it quickly becomes evident that they are highly creative when it comes to analyzing their environment through curious exploration and discovery (Isbell & Raines, 2012; Kaplan, 2019).

Nevertheless, it has been proven that creative people have an advantage over others in many aspects of life (Russ, 1999). They can adapt more quickly to new situations, explore, and find solutions to problems that are also off the beaten track, and master difficult situations by improvising and breaking out of typical thought patterns. Creative people have heightened perception and problem-solving abilities, and they frequently exhibit positive social behavior (Reiter-Palmon & Illies, 2004). New and unusual activities are valued by creative people since they respond to external impulses and show an extraordinary willingness to imagine things completely differently (Russ, 1999). Their active mindset gives them a great opportunity to constantly evolve and better adapt to new situations and

changes, which is a fundamental skill in today's ever-changing world. In his book "The Concept of Creativity," Robert Sternberg describes that creativity is a broad topic with implications at both the individual and social levels for a wide range of task categories. Individually, creativity is important while solving challenges on the job and in daily life. On the flip side of his research approach, creativity leads to new scientific breakthroughs, cultural movements, technologies, and social activities. The economic importance of creativity is evident since new products or services create jobs (Sternberg, 1999). This approach is as well underlined by Dr. Ruth Richards, in his research paper "Everyday Creativity and New Views of Human Nature", as it sets out the extent to which creativity is embedded in our society:

"Everyday creativity is...fundamental to our very survival. With our everyday creativity, we adapt flexibly, we improvise, we try different options, whether we are raising a child, counseling a friend, fixing our home, or planning a fundraising event" (Richards, 2007).

This phrase exemplifies how creativity is ingrained in all of humanity's daily behaviors and actions. Without creativity, humanity will always follow the same directions and paths (Newell et al., 1962). Ideas and inventiveness, for example, make individual lives and the lives of others much simpler, more sustainable even, as Richards said, vital for survival (Richards, 2007).

The relevance of creativity is directed to society and the earth as a whole. It is important to understand that humanity is facing now, upcoming decades and centuries major risks such as demographic and climate change, migration, and digitalization (Zhou, 2015). Humanity is dependent on self-confident creative people who discover new ways, pursue them consistently and solve problems with new ideas (Tushman & O'Reilly, 1996). By developing creative abilities to promote sustainable innovations humanity will be able to provide food and shelter for all the world's inhabitants while leaving behind a planet worth living on (Awan et al., 2019; Rank et al., 2004).

2.1.3 Creativity in the Working World

According to an IBM study in 2010 that surveyed more than 1,500 CEOs from 60 countries worldwide, leaders believe that creativity, rather than rigor, management discipline, and integrity, is needed to successfully navigate an increasingly complex world. Creativity has

been selected as the most influential factor for the future success of individuals and companies (Bendzsa, 2018).

From an economic point of view, creativity provides a competitive advantage in the development of new products and services, as well as in decision-making and problems solving (Nonaka, 1998). Successful creative destruction leads to innovation (Abernathy & Clark, 1985; Richards, 2007). For companies that want to maintain and strengthen their position in the market, innovation has become a major issue, as the difficulties of the twenty-first century require a high level of competence and constantly new solutions and goods to meet growing demands. For this purpose, creative methodologies such as design thinking have emerged (Johansson-Sköldberg et al., 2013). Creativity is becoming a significant resource in businesses, as well as for the personnel and personality development of employees (Mumford et al., 2012). A corporate culture that promotes creativity is, therefore, a worthwhile investment in the growth and performance of organizations (Cook, 1998).

Creativity at the workplace is often differentiated between individual and organizational creativity. On an individual level, personality traits, knowledge, and intrinsic motivation in addition to mental abilities play a decisive role. Every person is endowed with a different level of creativity, which results from both genetic predisposition and earlier life experiences. This level of creativity is accordingly dependent on the influence of the individual because creativity can be trained and stimulated. However, the individual creativity in the workplace focuses on ideas or innovations by a single employee or individual (Patterson, 2002). On the flip side, ideas or inventions relating to a group of individuals working for the same firm are referred to as organizational creativity. It is not about the creative performance of a single person, but that of the entirety. Sternberg describes organizational creativity as: *“the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system”* (Sternberg, 2010). It is important to point out that not all individual creativity is organizational, even though all organizational creativity is a result of individual creativity. Therefore, the following research concentrates on individual creativity.

2.1.4 Factors influencing Individual Creativity in the Workplace

As previously mentioned, creativity and innovation have a strong relationship and are often considered to be one and the same. It is important to understand that the two concepts are not the same, as the level of innovation in a company depends on the creativity of its employees. However, it should be emphasized that creativity is often a prerequisite for subsequent innovation so that a creative idea can become an organizational innovation. It could be seen as the first stage in the innovation process (West, 2002).

By using Hammond's model from the work “Predictors of individual-level innovation at work” from 2011 the factors that influence individual creativity and the resulting innovation in the workplace can be analyzed (Hammond et al., 2011).

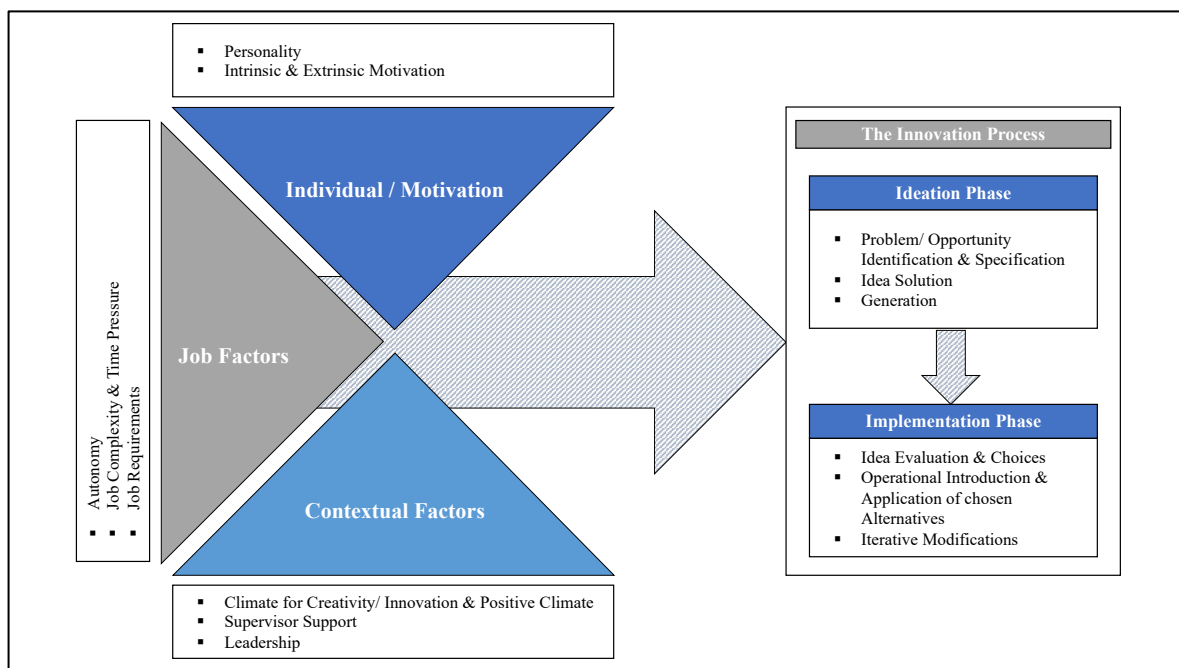


Figure 1: Predictors of individual-level innovation at work by Hammond 2011 (own presentation)

Figure 1 visualizes in-depth the innovation process and its influencing factors on individuals. Hammond divides the factors into three main areas: individual factors, job factors, and context factors, whereas individual factors are divided into individual factors and motivation.

In terms of individual aspects, it is essential to understand that each person is differently inclined and has unique characteristics and traits (Egan, 2005). According to Hammond’s

research, stable attributes are the primary determinants of creativity. Personally stable characteristics such as cleverness, self-confidence, individualism, insightfulness inventive, original and unconventional have been shown to be positively related to creativity and thus to innovation. (Hammond et al., 2011). Next to the stable characteristics, the relevance of multidisciplinary is important to be mentioned. Individual creativity may be transformed into innovation through an individual's capacity to synthesize knowledge from several aspects. The ability to put oneself in other perspectives can broaden an individual's perspective and lead to a more holistic and multidisciplinary view of an issue. Thinking outside the box and focusing on imagination and intuition lead to combinations to overcome challenges, and thus lead to creative solutions.

Another important point regarding the personality of individual factors is the demographic aspect. Knowledge, experience, and education broaden the individual's perspective and help them build a more comprehensive and integrated range of alternative actions from which they can develop creative solutions to challenges (Hammond et al., 2011).

Furthermore, one of the most influential factors in developing creative ideas is the factor of motivation. It is therefore essential to distinguish between intrinsic and extrinsic motivation. Intrinsic motivation is behavior that is driven by an inner or intrinsic desire. In other words, it is the motivation to engage in behavior that comes from within the person and not from outside. Thus, the drive comes exclusively from the individual and not from external influences such as incentives in the form of remuneration or praise (Bénabou & Tirole, 2003). According to Russ, intrinsic motivation is the practice of an activity for its own intrinsic reward rather than for a separate benefit (Russ, 1999). Extrinsic motivation, in contrast, describes behavior that is externally driven by reward or punishment rather than by internal desires. Therefore, extrinsic motivation can be based on both reward and fear as long as there is an external force driving the motivation. Personal motivation varies from person to person, so the forms of effective motivation will also vary from team to team. While one person may respond better to intrinsic factors, another may respond better to extrinsic factors. The key is to consider the needs of the team and what is best for their overall well-being to build up a creative way of thinking and behaving (Ryan & Deci, 2000). In terms of motivation, it has been demonstrated that self-efficacy has a substantial correlation with individual motivation.

The word self-efficacy expectation refers to people's subjective belief in their abilities. Positive self-efficacy expectations increase the desire to tackle new and challenging things and put forth the effort. Negative self-efficacy expectations, on the other side, cause a lack of initiative or abandonment (Hammond et al., 2011).

The second important factor that influences individual innovation and thus creativity in the workplace is the so-called job factors. This factor includes autonomy, job complexity, time pressure, and role requirements. Jobs with a relatively high degree of autonomy in terms of how, when, and where work is done might foster creative behavior. Individuals that excel at acting creatively frequently appreciate freedom and autonomy. Complex tasks for example have less routine, which may encourage idea development. Conversely, tasks that are too complex can also inhibit creativity. Time pressure, resolving stress, and creativity are thus an integral part of today's working world. Stress can have a negative impact on creativity, but stress can also support and promote creativity and innovation. Lastly, the role requirements describe the fact that individuals may be more motivated to invest time and energy in creative activities if they feel that this is expected of them. A leader who expects creative behavior from a subordinate is likely to change the subordinate's self-expectations and resulting motivations (Hammond et al., 2011).

Lastly, the creativity process is influenced by contextual factors. Based on Hammond's research contextual factors include support for creativity and innovation, positive work climate, availability of resources, supervisor support, and leadership. A wide range of past research has shown that support for creativity and innovation has a correlation with individual creativity by the fact that individuals who operate in environments where taking risks are viewed as safe exhibit more inventive behavior. This fact coincides exactly with the contextual factor "positive climate" as with the promotion of creativity and innovation a positive, open, and supportive working environment is being established. The positive climate motivates and encourages workers and provides them with a way to overcome challenges and eliminate frustration. In order to create this pleasant and comfortable climate, it is also necessary to pay attention to the given organizational resources, because according to Hammond, these have a strong influence on an individual's creativity. Financial,

informational, technical, or even supportive assistance has a great impact on the employee by providing them with the necessary assets in order to strengthen their level of creativity. Another contextual factor that influences individual creativity, according to Hammond, is supervisory support and the resulting leadership style. Hammond proves that the influence of the supervisor or manager on the employee has a positive effect on creativity and innovative behavior, as interest in work and intrinsic behavior increase. He believes that the leadership style will influence individual creative and innovative behavior drastically. Hammonds and various other researchers have shown that the use of transformational leadership positively correlates with inventive and creative activities (Anderson & King, 2010; Hammond et al., 2011).

2.2 Transformational Leadership

This part of the chapter is divided into two main aspects to provide an understanding of the context of transformational leadership for this dissertation. First, the definition of transformational leadership is explained by discussing the history of transformational leadership and drawing on previous research models to describe how transformational leaders are characterized.

2.2.1 Definition of Transformational Leadership

Today's world is defined by increasing competition, short product life cycles, a shortage of skilled labor, advancing globalization, and market changes. As already mentioned, creativity and innovation take on enormous importance in companies and their future. As advantageous factors such as location and technology become less important, employees are the most important resource. The management of human resources is a real challenge in terms of predictability and organization. In this respect, leaders are fundamental in motivating and inspiring their employees by affecting and fostering creativity. Many different leadership styles have different effects, and in the recent years transformational leadership in particular has become established as an indicator of employee creativity.

The term "transformational leadership" was first mentioned in 1978 by the US political scientist James MacGregor Burns, who was interested in integrating both emotional and symbolic aspects of leadership and directing their influence on the creative output of the employee (Burns, 1978). After years the term became more and more relevant in the economy until 1985 when Bernard M. Bass developed a new approach to his criticism. He emphasizes that previous leadership theories mainly emphasized the effect of reinforcement mechanisms as an incentive for employees, whereas, however, employee behavior can also go beyond self-interest and result in leadership success (Bass, 1985).

Based on Bass's research, transformational leadership consists of four main factors: idealized influence, individual consideration, inspirational motivation, and intellectual stimulation. A transformational way of leading ensures that those being led do not only think of their own advantages and goals but are also committed to the well-being and targeted results of the company. Employees are intrinsically motivated and inspired to change or transform their behavior and their willingness to learn and perform.

The first characteristic "idealized influence" describes that the leader has exceptional charisma and the ability to inspire employees. The employees can identify with their charismatic perceived leader who offers them a desirable vision. They respect and admire their leader and are motivated to perform to their full potential.

The second main factor of transformational leadership is the "individual consideration". Therefore, the leader addresses the personal needs of the employees in order to strengthen competences in a targeted and fair manner. The leader assists the employee in achieving his or her own objectives, for example, by providing feedback, particular duties, or development possibilities. The employee is thereby transformed in his behavior and sets higher goals for himself in order to achieve the common overarching values and interests of the organization.

The third factor "inspirational motivation" focuses on the motivation through inspiring visions. The leader inspires with attractive visions and encourages his employees through emotionally conveyed messages to follow the path he or she has set.

As the last factor, it is important to include "intellectual stimulation" as one of the characteristics of a transformational leader. The intellectual stimulation focuses on stimulating the creative and innovative thinking of the employee. By consistently

challenging established practices, the leader inspires employees to think creatively, which has a positive impact on analyzing and enhances organizational processes.

In conclusion, the transformational leader acts as a role model, responds to the needs of his or her employees, conveys respect and trust, and creates an understanding for the visions and goals to be strived for together by addressing them emotionally.

2.2.2 Transformational Leadership fostering Individual Creativity

In the last decades, numerous research has supported the value of transformational leadership on individual employee creativity (Eisenbeiß & Boerner, 2013). The reasons for assuming that transformational leadership is a driving force for creativity and innovation can be derived, on the one hand, from the already described importance of leadership in general for creative and innovative performance, and, on the other hand, transformational leadership is characterized by a visionary and change-oriented attitude (Gumusluoglu & Ilsev, 2009).

According to Bass and Avolio in 1994, transformational leadership may help employees see the need for change in the existing situation, which is important for having a visionary and change-oriented mentality. Transformational leaders create an enticing corporate future through inspirational motivation and act as so-called "change agents" (Bass & Avolio, 1994). Their vision establishes a new target value and stimulates employees to the need for change in the existing situation Mumford et al. states that vision-oriented transformational leadership drives employee motivation and, as a result, influences individual creativity through the process that is put in motion (Mumford et al., 2002) Furthermore, transformational leaders foster intrinsic motivation in their workers by emphasizing the relevance and significance of their job as well as their role to the realization of a greater goal (Avolio, 1994). Employees that are intrinsically driven are more likely to recognize the existing situation as needing to change because they identify closely with their work and are thus more aware of opportunities for development (Russ, 1999). With their empirical research, Shin and Zhou were able to underline past research since they demonstrated that the benefit of transformational leadership on employees' individual creativity is mediated by an increase in their intrinsic motivation. Employees, therefore, show interest in giving

their full commitment to their work tasks and get the feeling that they can make their own contributions by applying new and innovative ideas. (Shin & Zhou, 2003).

As mentioned in part 2.1.4, self-efficacy is a factor that can strongly positively influence creativity. Transformational leaders can motivate employees by increasing their self-efficacy so that individuals not only recognize the existing situation as in need of change but also seem capable of doing the change (Hammond et al., 2011). Employees with high self-efficacy are distinguished by their belief in their own talents and their capacity to handle even the most challenging conditions. Although they expect positive outcomes, the employees do not find the need for change to be disturbing, and instead approach new duties with motivation and enthusiasm (Shin & Zhou, 2003). According to Gong et al., employees with high self-efficacy spend more time searching for answers, try harder, have a higher frustration tolerance, and do not give up easily in the face of obstacles or challenges. High self-efficacy not only improves performance but particularly affects creative and innovative work. (Gong et al., 2009).

Transformational leadership strengthens the self-efficacy of employees through individual appreciation, as the manager specifically addresses the needs and wishes of the individual employees, perceives each employee as an individual, and systematically promotes them. As a result, the employees' self-awareness of their own abilities grows (Mumford et al., 2002). The transformational leader gives the employee with all the resources and knowledge they need to foster their employees' creative and unique potential. In addition, the high-performance expectations that transformational leaders set for their employees also express the leader's confidence in the employees' abilities. This in turn has as well a positive effect on the employees' self-efficacy.

As already mentioned, the intellectual stimulation of transformational leadership encourages employees to activate new and creative thinking processes and to look at previous problems from different and long-term perspectives. Bass has shown that this intellectual stimulation, especially at the cognitive level, most enhances employee creativity (Bass & Riggio, 2005). Transformational leaders strive for new perspectives, break established patterns and promote creative rethinking in their workforce. They repeatedly ask their employees to critically

question the current state and to check assumptions, regulations, or processes for their meaningfulness and justification. Bass clearly shows that employees are encouraged to rethink their problems and approach them in a creative and open-minded way. As a result, employees are encouraged to discover their intellectual curiosity, use their ingenuity, and independently seek unconventional solutions. Furthermore, the positive effects of transformational leadership on intellectual stimulation are enhanced by the fact that the leader acts as a role model. Leaders constantly question working practices and seek original ideas and approaches themselves, trying to demonstrate directional and idealized patterns. This constantly open, guided, and reoriented leadership is practically transferred to the employee so that he or she is positively influenced in his or her creative behaviors.

2.3 Working Models

In today's world of constant change, companies need to adapt in order to remain competitive in the market. Many influencing factors such as digitalization, pandemics, new technologies, automation, and the development of artificial intelligence, are causing society and economy to reshape the familiar world of work (Nagel, 2020). The Covid-19 pandemic 2020, for example, has turned the world of work upside down. Flexible and mobile working models have gained massively in importance and even after the Covid-19 crisis, working virtually will permanently shape the everyday working lives of many people (Lichtenstein et al., 2022). Whether home office, teleworking, mobile working, virtual office or remote work, numerous alternative concepts have established themselves today compared to the old fashion office obligation. In addition to the many different working models, three main categories have essentially emerged: Fully remote, working from the office and hybrid work model.

Fully remote work means that the employee can carry out their professional activity from any location. This does not necessarily have to be in your own home, but can also be for example in a mobile office, train or plane. However, there are some differences within this concept. Ultimately, every company that practices remote work defines the term for itself, with the one common characteristic that the work is basically done remotely, only in

exceptional cases is the office used as the place of work (Nickson & Siddons, 2003; Olson, 1983).

Working from the office, in contrast, is the exact opposite and implies that the employee must go to the office in order to be able to carry out his professional activities. He or she cannot, therefore, work beyond the agreed location and have recourse to remote possibilities. This implies that the office remains the primary place of work. Working outside the office is only the exception (Roelofsen, 2002).

The hybrid working model characterizes the form of working as a mixture. In concrete terms, this means that work no longer takes place exclusively in the office. Instead, employees can also work outside the office, depending on their needs and preferences. The employees have the chance to decide freely when they want to come to the office. In most cases, employees set fixed days in the week when they work outside the office. The development of hybrid work is by no means new, in fact this trend has been around for a number of years (Hoch & Kozlowski, 2014).

2.4 Transformational Leaders fostering Individual Creativity remotely

According to a survey by the Capgemini Research Institute from 2020, almost three out of ten businesses anticipate that more than 70% of their workforce would be remote workers in the next two to three years (Capgemini, 2020).

Virtual structures and decentralized organizational models will gain in importance in the future. This will be accompanied by a new type of leadership, which will primarily take place at a distance and digitally. The type of communication between leaders and employees is thus different from that in traditional work structures. Since contact takes place almost exclusively via telephone and electronic media, the term “E-leadership” has become established for this type of leadership. According to Avolio et al., E-leadership is a social influence process mediated by AIT (Advanced Information Technology) that results in a change in people's attitudes, feelings, thoughts, behavior, and performance. This notion

emphasizes the use of electronic media for social interaction between employees and leaders. (Avolio et al., 2000).

As previously mentioned, many researchers, especially Bass, have shown that transformational leadership has a strong influence on employees' creative behaviors. It has been proven that the transformational leader's influencing factors: idealized influence, individual consideration, inspirational motivation, and intellectual stimulation raise the performance standards employees set for themselves and thereby motivate them to perform above expectations (Bass, 1985; Bass & Avolio, 1994).

While previous studies have focused only on transformational leaders who foster creativity primarily in office-based work. This research focuses in particular on transformational leaders fostering creativity in the virtual environment, including hybrid and remote work models. From a scientific perspective, leadership quality and practices are of central importance for the survivability of organizations, especially in times of digitalization (Hoch & Kozlowski, 2014). Therefore, this study aims to fill this research gap by answering the main research question:

Does the virtual environment influence transformational leaders in fostering individual creativity?

3 Methodology

The following chapter of the dissertation will elaborate on the methodology of the research in order to demonstrate how the research was performed. To answer the main research question generated in chapter 2.4, the author conducted a mixed study involving a qualitative and a quantitative research method. With the help of a qualitative observation, the survey of the actual situation was generated and analyzed apart from numbers, data, and facts. It has the advantage of consciously allowing the subjective assessment of the information collected to flow into the process, thus enabling the development of new theories. In order to close the gaps in the qualitative method, the author also carried out a quantitative method that focused on the evaluation of large amounts of data and the testing of generated hypotheses.

First, semi-structured expert interviews with a diversity of transformative leaders helped to create insights into many facets of how they encourage creativity in the virtual environment. Secondly, a survey was then conducted, which focused on employees' perspectives and perceptions of the transfer of creativity into their professional lives. Insights generated from the expert interviews were integrated into the survey as influencing factors in order to underline their arguments.

3.1 Qualitative Research

Generally, there are different methods of data collection in the field of qualitative research. Expert interviews are one of the most frequently used methods in empirical social research, especially with regard to leadership and creativity. In qualitative research, and thus also in the expert interview, the main aim is to gain an understanding of social reality by examining patterns of action and interpretation of people and their life contexts. This is done by means of open communication between the researcher and the interviewee, whereby the social reality is explained and reconstructed in an understanding manner through the execution and evaluation of the interview. By using the expert's practical and interpretive knowledge, he or she can help determine and change his sphere of influence. He or she is responsible for the conception, development, application, and management of a problem. The expert also has special access to social situations, decision-making procedures, social groups, and certain fields.

3.1.1 Expert Interview Structure

In order to give a clear understanding of the further process, the structure of the semi-structured interviews will be explained before the author discusses further details. To get all interviewees on the same level, the topic was first introduced and a brief structure for the interview process was presented. The interview questionnaire focuses on three different sections: introductory questions, key questions, and open discussion. The introductory questions focused on the formal data such as the data protection agreement, main information about the interview, the position, and the company. In the second part, the key questions were again divided into three further sub-areas: transformational leadership, creativity, and the virtual workplace. The transformational questions were to be answered with a 5-Likert-Scale in order to first warm up, clarify and check their view on transformational leadership, whereby the rest of the questions were open questions regarding creativity and the virtual workplace. The transformational questions are based on Bass' research mentioned earlier in the literature review in chapter 2.2, whereas the rest of the questions were created by the interest of the main research question. A final open discussion followed in which the remaining unanswered questions were clarified, and the resulting arguments were condensed. Appendix A-I of this dissertation contains examples of how the expert interviews were structured and conducted.

3.1.2 Expert Interview Data Collection

In order to find experts from different fields, 15 potential candidates were contacted via various channels such as LinkedIn, XING, and personal networks. In advance, various factors were clarified with the future interviewees. The interviewee should be in a managerial or executive position and have at least three employees that the manager or executive had to take care of. In order to prevent overlapping of the sectors, the author has selected employees from different fields to diversify as much as possible. Overall, 9 of the 15 potential candidates were selected for the shortlist and the interviews were conducted with them. A strong emphasis was placed on internationally renowned companies such as BearingPoint, Deloitte, Accenture, Colliers, Mattel, and GIZ. In addition, two other smaller startup-like companies, ISC AG and MGRP were interviewed for review if other perspectives were available. Each personal interview was conducted using the “Zoom”

communication tool and had a length of approximately 30 to 60 minutes. With the consent of the experts, the interviews were allowed to be recorded. The author is permitted, with the consent of 7 of the 9 experts, to refer to the experts by their full names in the dissertation. For ease of reading, the experts are referred to as "Expert A-I". Figure 2 visualizes a general overview of the experts.










Expert	Expert Name	Company	Company Sector	Position	Leader of #	Interview Mode
A	Aurianne Magnin		Management Consultancy	Consultant (Banking)	3	Zoom (Remote)
B	Liron Schwick		Audit	Senior Consultant	4	Zoom (Remote)
C	Dr. Uwe Stemmler		Strategy Consulting	CEO	1-49+	Zoom (Remote)
D	Sophia Hieronymi		Public Authority	Senior Specialist	5	Zoom (Remote)
E	Cornelius Kolb		Real Estate Consulting	Senior Analyst of head	1-125	Zoom (Remote)
F	Felix Stemmler		Real Estate Consulting	Senior Consultant	6	Zoom (Remote)
G	Florian Plappert		Toy Industry	Product Manager	5	Zoom (Remote)
H	Anonym		Business & Strategy Consulting	HR Business Partner	50+	Zoom (Remote)
I	Anonym		IT Consulting	Partner	150+	Zoom (Remote)

Table 1: General overview of the Experts (own presentation)

3.1.3 Expert Interview Data Evaluation

After conducting and transcribing the interviews, the author used a mixed methods approach according to Mayring to cluster and analyze the generated data. Mayring distinguishes between two different approaches in qualitative evaluation: inductive and deductive (Mayring, 2016).

Induction is always important in research when conclusions are to be drawn from the concrete individual case to the generality. So, if only a few general data are available at the beginning, induction helps to create a scientific basis for researching facts. In this context, induction is also referred to as a theory-building procedure. During qualitative content

analysis according to Mayring, inductive category formation thus starts from the text material, which serves as the basis for a theory to be created (Flick et al., 2004).

Whereas inductive category building involves the researcher developing a category system from the data, deductive category application uses existing research as the basis for applying a category system and structuring the content. The deduction is accordingly based on reasoning from the general to the individual case. Therefore, the deductive procedure is also very suitable for testing already existing scientific theories on the individual case, which means that deduction is a theory-testing procedure. It is possible to mix inductive and deductive methods in content analysis, also called the mixed methods approach (Mayring, 2016).

The top-down mix methods approach adapted by the author developed a coding tree that consists of three levels: level 1: topics; level 2: themes and level 3: codes. A complete overview of the coding tree can be found in Appendix K. The three different main themes are transformational leadership, individual creativity, and virtual workspace, whereas the sub-themes of transformational leadership and individual creativity are based on the theories from chapter two. The virtual workspace sub-theme was logically developed from the content of the generated data. Transformational leadership consists of the four aspects of a transformational leader: inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence. The sub-themes of individual creativity are individual and motivational factors, job factors, and contextual factors. The virtual workspace is divided into virtual management, resources, and virtual challenges. Each sub-theme has been assigned a color to make coding more manageable.

To generate the codes for the different subthemes, each transcribed response to the corresponding questions were arranged and categorized into several topic categories which will be further analyzed in chapter four. The chart, "Interview Codes", which can be found in appendix J, serves as an overview and should be considered to simplify the further reading process. After all the expert answers were neatly divided into a table, the answers were broken down into a maximum of five individual codes. For example, Expert H states:

“...but you just need to know the basic building blocks and how human thinking works. At Accenture, we use many different ways, such as having daily meetings where each employee can freely present their ideas and thoughts. This encourages every member of the team to think and help shape the ideas. Feedback plays a big role here. Furthermore, we have many opportunities with training and solutions demos to support our employees” (Expert H).

This answer leads to four different codes: "Human Thinking", which is an important contextual factor in relation to individual creativity, "Feedback", which is a feature of individual consideration of transformational leadership, and "Daily Meetings" and "Training", both of which are important resources for the virtual workspace. After all the answers were broken down into codes and divided into their respective colors, the codes were added to the coding tree. Through the analytical interpretation, the author was able to draw a logical conclusion, which is further presented in chapter four.

3.2 Quantitative Research

As already mentioned in the introduction to this chapter, quantitative research methods are about collecting standardized data in a targeted manner. In this way, quantities, frequencies, and statistical correlations can be determined. Due to the flexibility that qualitative research methods entail; it is possible to react to unpredictable aspects. This type of research is used in complex contexts to gain deeper insights into a research subject. The aim is to deepen the findings and obtain detailed information. Qualitative research is often used as a complement to quantitative research because the answers are open-ended due to the exploratory nature of the questions.

The author used a quantitative research method in the form of a survey to fill in the gaps in the answers generated by the quantitative method, to check whether the answers were truthful, and possibly underline the responses. In comparison to the expert interviews, the survey focused on the employee's points of view in order to assess their perspectives on the promotion of creativity in the virtual workplace by their leaders.

3.2.1 Survey Structure

The structure of the survey was divided into 4 different sections: To what extent is the leader transformational, to what percentage does the employee work from the home office, the level of individual creativity, and which recommendations generated from the expert interviews are used in the participant's everyday work. The questionnaire of the study is presented in Appendix L.

Part one focused on assessing the extent to which the employee leader is leading according to the principles of the points described by Bass. A total of 17 different questions were asked regarding transformational leadership, based on a questionnaire from the MLQ Questionnaire (MLQ, 5X-Short) by Avolio (Avolio, 1994). In order to make the questions applicable to the study, they were rephrased so that they were able to be answered from the employee's point of view. The questions were answered using a 5-point Likert scale, whereby (1) stood for "not at all" and (5) was "frequently, if not always".

Part two was introduced by a small passage that describes the years of the Covid-19 pandemic beginning in 2020 and refers that many concepts and possibilities have been transformed. The participant was then able to estimate the percentage of his or her current or recent work from the home office.

After the third section, the level of personal creativity could be assessed. Using a questionnaire based on the work of O. Tierney and P. Farmer in 1999, the participant could answer 14 questions regarding creativity on a 5-point Likert scale, whereby (1) stood for "strongly disagree" and (5) stood for "strongly agree". Yet again, the questions were modified so that the employee could answer from his or her personal perspective (Tierney et al., 1999).

By contemplating the future hypothesis, the author proposed a half-open question at the end of the survey. Here, the participant was able to select 0-12 possibilities between various options. The so-called options are the 12 most important recommendations derived by the author from the expert interviews. The recommendations include 6 recommendations on

virtual tools and 6 recommendations on virtual working conditions. With the help of this question, the author was thus able to generate whether the recommendations have an influence on the transfer of creativity in the virtual workplace. The following figure (Figure 2) visualizes the resulting approach generated from the data.

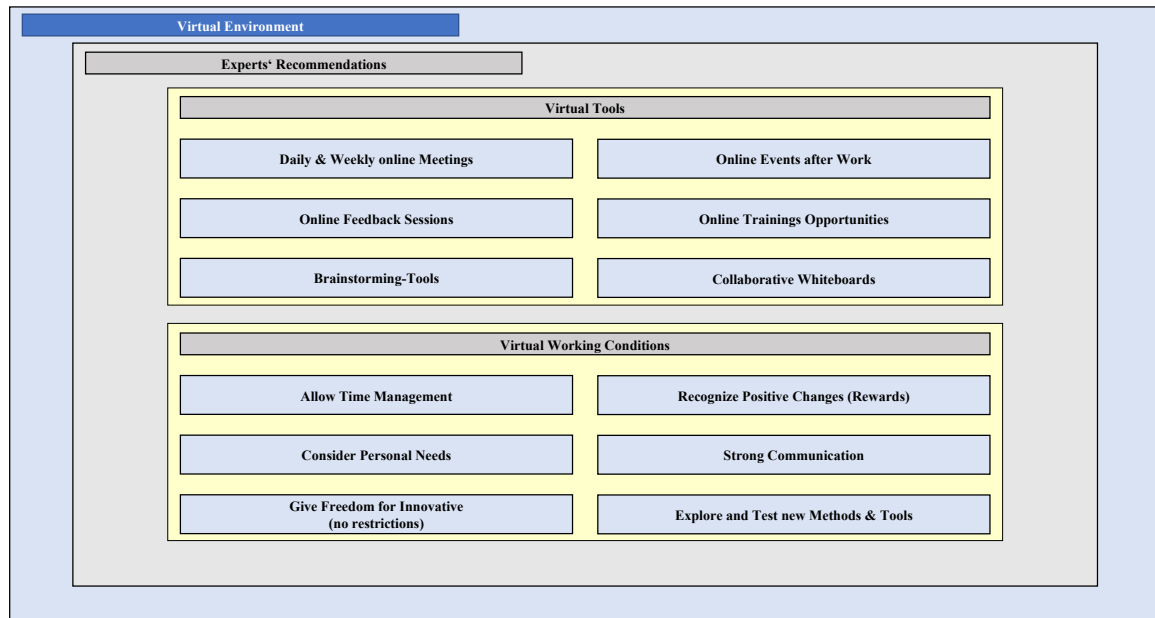


Figure 2: Experts' Recommendations (own presentation)

3.2.2 Hypothesis for Quantitative Research

To answer the main research question: *"Does the virtual environment influence transformational leaders in fostering individual creativity?"*, expert interviews were conducted with various transformational leaders.

The qualitative data clearly showed that virtual working conditions have an influence on the promotion of individual creativity by transformational leaders from the perspective of leaders. Therefore, the view of the employees had to be examined. With the resulting qualitative data and the knowledge gained from the reflection in chapter two, two hypotheses have been developed.

H1: *“Virtual environment influences transformational leadership in fostering individual creativity”*

From the experts' results, 12 selected recommendations on virtual tools and virtual working conditions were developed which are intended to influence individual creativity. This needed to be tested, and thus hypothesis 2 was created:

H2: *“The usage of the expert recommendations is positively associated with fostering individual creativity by transformational leaders”*

3.2.3 Survey Data Collection

The survey was created and published with the help of the online tool "Qualtrics", whereas the analysis was carried out with the usage of “SPSS”, a statistics and analysis software tool. Participants were collected using various social media channels such as LinkedIn, Facebook, and Instagram and social contacts such as friends, family, and acquaintances. From the beginning, it was made clear that the participants had to be employed, working either part-time or full-time, or having done so during the previous two years. A total of 458 participants successfully took part in the study, although 5 participants were excluded from the study as they did not indicate their working status. This results in N=453. Among the participants, 270 (59.6%) were male, 182 (40.2%) were female, and 1 (0.2%) was non-binary. The average age of the participants was 32.7, i.e., 33 years. Neither age nor gender is considered particularly relevant, as trend reports suggest that there are no significant differences in the assessment of the promotion of individual creativity in the virtual workplace.

In addition to age and gender, the employment status and place of residence of the participants were assessed. 401 (88.5%) of the participants reported working in a full-time job, 48 (10.6%) work part-time, 3 (0.7%) are students and 1 (0.2%) other participant reported having another employment relationship. A total of 35 different nations took part in the survey, with most participants coming from the USA (61.37 %). Australia (6.18 %), the United Kingdom (6.18 %), and Germany (3.75 %). Overall, the US, Europe, and Australia

represent western countries with a similarity to the way employees are managed. Detailed information on all demographic data can be found in Appendix M.

3.2.4 Survey Data Evaluation

In order to effectively analyze the data collected for the course of the study and to answer the hypotheses, two different tests were conducted using SPSS. First, a Spearman correlation test was conducted to assess the monotonic relationship between the variables. The variables here are the transformational leadership index, the individual creativity index, the home office index, and the expert recommendation index. To account for multiple factors in the prediction at the same time, a multiple regression was performed afterward. This made the prediction more accurate and accounted for more variance in the criterion. In addition to predicting new criterion values, multiple regression allowed the author to examine how different variables are related. To ensure that the multiple regression test was applicable, various requirements were examined in this study.

First, the Durbin Watson Value was checked to see whether it was uncorrelated. The overall value had to be close to the value of 2000 and could not be above 3000 and below 1000. This was accurate as the value was 1.359 and so is therefore applicable (Appendix O). To check if multicollinearity was indicated the author checked the collinearity statistics. In all cases, the VIF values were <5 , so there was no multicollinearity (Appendix Q). By checking the residuals, outliers could possibly be detected. No outliers were found (Do not exceed -2000 or +2000). This is also illustrated by the Quantile-Quantile-Plot found in Appendix R. It shows that the residuals are normally distributed since the points are linearly merged with the line. Based on the scatter plots in Appendix S, linearity and homoscedasticity are present because the scatter plots are organized like a wild point cloud so that neither a trend nor a funnel can be seen. Since requirements were met, the multiple regression test has been used for ongoing research.

Additional conditions had to be checked before the data tests could be interpreted. The adjusted R-squared was examined to evaluate the model's quality. The R-squared is a statistical measure of how close the data are to the fitted regression line. The R^2 for the overall model was .436 (adjusted $R^2 = .433$), indicative of a high goodness-of-fit according

to Cohen (Appendix O) (Cohen, 1988). To finally check whether the predictors were significantly predictive, the ANOVA table was considered. Transformational leadership, home office, and expert recommendations were statistically significantly predictive of individual creativity, $F(3, 449) = 115.897, p < .001$ (Appendix P).

4 Findings

This chapter focuses on the results of the data obtained. The findings of the experts and the employee survey were used to supplement the secondary data from the literature research.

4.1 Fostering Creativity as a Transformational Leader

In today's economic situation, companies must face the challenge that technologies, markets, and people's needs are constantly changing. To overcome these obstacles, all nine experts believe that engaging employees by fostering their creativity and knowledge can improve a company's performance and competitiveness. For example, Expert I state:

“We need new ideas and approaches to outshine our competitors. Acquisition is very important, especially for us. We have to stand out and present an attractive offer with our special possibilities. Creativity is also often required in the project itself. We rarely have the same situations in our job. We always have to adapt, and that's where creativity is essential” (Expert I).

With every implemented suggestion for improvement, a grievance is reduced, a potential is better utilized, and the company's market position is improved. However, only a continuous stream of new ideas and the resulting innovations will lead to an improvement process (Expert A). The question is how to create a working environment in which employees contribute their knowledge, potential, and creativity beyond the normal level. Employees need an environment in which they can use their creative potential in a meaningful way. Therefore, the company must shape the organization in such a way that the internal degree of innovation is increased. Creativity must be recognized, harnessed, and given an environment in which it can flourish (Expert G). This highly valuable skill will be indispensable in the future for solving problems, devising strategies, and developing the ideas that drive companies forward. A major reason for creativity is the opportunity to realize oneself through creative work. Being able to develop creativity through transformational matters at work is fascinating and attractive for many employees because it lifts them out of the daily routine because creative work gives them the feeling of living more intensively than usual. Transformational methods to promote creativity are discussed in detail in chapter 4.3. However, Expert H from Accenture's HR sector clearly shows how important it is to adapt to the circumstances by stating:

"It is important to promote innovative creativity. New methods, approaches, and solutions are essential to survive in the market and to outperform other competitors...because there are many attractive employers, and you need to retain your employees. This can only take place with innovative and creative ideas that present you better than other companies" (Expert H).

Every industry and sector needs creativity, and it will continue to play a significant role in both the present and future trends. It is critical to realize that creativity might just be a modest change made to an aspect of daily life rather than always resulting in innovation (Expert C).

It is important to understand that there are industries where creativity is more important than others. For example, creativity plays a major role at Mattel in product management, whereas at Deloitte in auditing, creativity does not play such a big role (Expert G). However, it is important not to lose sight of the fact that creativity does not always have to mean creating a new product or a new strategy. It can also be a matter of small steps that have a great added value in the long term. Expert B mentioned the creation of a VBA code that completely took over a weekly work step of an employee just because he let the employee work creatively by giving him room to maneuver (Expert B).

8 out of 9 experts stated that they explicitly pay attention to promoting individual creativity almost daily in their company. According to Expert H, creativity makes the individual employee more open to the suggestions of others. The employee learns to question, gets the courage to change things, and is more willing to take risks if he is convinced of an idea (Expert H). Through creativity, the employee collects many different approaches to solutions. He uses them to develop concepts and a creative approach changes the way a problem is seen. Creativity pays off for the transformational leader and the company, as creative thinking is contagious and spreads throughout the company. Different working methods, different workplaces - anything that changes the perspective has a positive effect on employee creativity since both the leader and the employee are forced to adapt and find a solution to new situations.

These assumptions are equally supported by the survey results, more precisely, the spearman's correlation test, as it indicates that there is a significant correlation between

transformational leadership and individual creativity. The correlation between the transformational leadership index and the creativity index is .662** at a significance level of 0.01 (2-tailed). Similarly, the coefficient between the transformational leadership index and the creativity index from the multiple regression test with a value of 0.569 at a significance level of <.001 underlines the high dependency between transformational leadership and individual creativity.

4.2 Challenges in fostering Individual Creativity

In terms of transformational leadership that focuses on fostering creativity, the 9 experts claim that there are significant distinctions between home and office-based work. However, 7 of the 9 experts strongly underline that the home office has a great effect. According to experts B and D, consideration must be given to the variations in circumstances since it is also feasible for a transformative leader to foster creativity online extremely effectively. Each employee's performance must be closely monitored. According to Expert D, certain employees are far more productive and consequently have a lot better level of understanding when working from home. As a result, it is simpler for managers to encourage creativity among workers who are at ease working from home than it is among those who are not. Expert B asserts that a person's style of functioning is very individualized. Everyone in the world is unique and has unique working methods, cognitive processes, and perspectives. So long as it is feasible to understand how a person behaves, the virtual world does not necessarily have to have a negative impact but can also have a beneficial one (Expert F).

However, as mentioned, the majority of experts believe that there are differences in terms of creativity transfer in the home office. The most frequently mentioned factor is the factor of distance. Working remotely allows for more independence, which affects how people operate and presents challenges for managers (Expert B). This correlates with the experts' answers concerning the shortage of direct contact with the employees in the home office. For this purpose, communication and proximity are central fields of action in remote management. Numerous risks such as disorientation, unclear task distribution, or social isolation, are closely related to the way communication takes place between managers and their employees. Not only does communication between the leader and the employee plays

a major role, but also communication within the team. According to Expert C, promoting creativity has a rub-off factor. This means that if the leader stimulates the creativity of an employee, the chance that he or she will further stimulate other employees via the virtual environment is lower than if they were to see each other in person.

According to Charalampous, granting freedom does not relieve managers of their leadership role, but rather represents a new form of taking on their own leadership role and implementing leadership principles (Charalampous et al., 2018). When leadership takes place at a distance, not only communication changes but also the leadership mechanism. As direct access to employees, and thus the possibility of spontaneous instructions and assistance in the performance of work tasks, is eliminated, there must inevitably be a shift from direct to indirect control. This change allows managers to rethink their understanding of leadership and performance. A basic idea in this context must be that employees also work sufficiently without being constantly controlled by the manager. Individual performance is not measured by the time worked, but by the results achieved. Work performance is then measured by what was achieved, not by the effort. This shifts the focus from the activity to the result (Expert H).

Another essential factor to consider in terms of distance is the extended communication channels that exist between the leader and the employee in the virtual environment. Although most workers are always online and available in today's workplace, they cannot just walk one room over to the leader and make personal contact. This has a significant influence on time management and social interaction, both of which have the ability to stimulate creativity.

According to experts, the second main factor negatively influencing the transfer of creativity is the social factor. Expert C for example states that:

„Social interactions inside organizations are crucial for team harmony as well as for creativity and initiatives. They enable the start of a collaborative effort. So, the feeling of belonging is important. Teams enter a virtuous circle when they feel that they are a part of a larger group” (Expert C).

This quote illustrates the significance of employee social engagement. Experts all agree that social connection is far more difficult to engage in online, but it is not impossible. Direct interaction with coworkers has a significant influence on collaboration and social needs. Many employees who work in a virtual working environment frequently feel isolated, which

has a detrimental influence on job outcomes on the one hand and social engagement in the team on the other (Expert I). It is therefore difficult to stimulate the creativity of the employees and to create a structure for interaction. When there is a sense of belonging and everyone can rely on one another, teams become stronger, and their chemistry improves. It is important to note that social interactions such as going to the coffee machine together and having a short conversation, similar to lunch, simply eliminate a heightened social aspect that often leads to creative ideas when talking about thoughts and notions (Expert A). For example, Expert H states: *“The physical closeness to the employees is simply missing. You can act much better and analyze their emotions and can then act in a more targeted way”* (Expert H). However, leaders must never disregard reactions as well as personal emotions. If a leader does not know the emotional state of the employee, problems arise when handing over creativity. In face-to-face conversations, the leader can much better respond to and assess the employee's individual feelings or body language. This gap in social interaction makes the transfer of creativity very difficult.

Another major factor influencing employee creative handover is that most workers work from home in a suboptimal working environment which a leader can very hardly influence. Employee dissatisfaction has a strong influence on the uptake of creativity because it changes thinking patterns that are given differently in an office. The fact that the conditions, such as chairs, tables, group rooms, printers or a proper internet connection are not provided as in the office this often has a negative impact on the motivation and general work attitude of the employees. In addition to the purely spatial conditions, employees are often disturbed by comfort or distractions from other inhabitants. If an employee is fundamentally unhappy or agitated, it is difficult to encourage the employee's creativity (Expert F).

4.3 Practices by a Transformational Leader

“Our very survival depends on our ability to stay awake, to adjust to new ideas, to remain vigilant, and to face the challenge of change” (Kilian, 2019). This citation by Martin Luther King Jr can also be referred to as the opinions of the 9 experts. To stay ahead of the market, it is important to stay constantly alert and adapt to different circumstances. To overcome these hurdles, a strong emphasis is placed on different practices, as it is equally achievable for a transformational leader to positively influence creativity in the virtual environment. The opinions expressed by the experts can be divided into two different topics, virtual tools, and virtual actions, which partly overlap themselves.

4.3.1 Virtual Tools

The experts highlight various tools and agreements that can help to strengthen the general communication between the leader and the individual employee or the team. With the help of communication tools such as Microsoft Teams, Skype, Slack, or Google Workspace, online communication is greatly simplified. By using these tools, the manager can establish close and more intensive contact with the employees. The communication tool enables the implementation of various activities. Daily or weekly meetings are a good example of the transfer of creativity because through close contact, the leader can address many different points that positively stimulate the employee's creativity. For example, it gives the employee a sense of cohesion and responsibility (Expert F). It is much easier to respond to individual needs and act as a role model (Expert I). It is very important that the entire team has turned the cameras on, as seeing only the faces of the employees and not a black screen will improve social interactions. The tools should be used to hold feedback sessions and to find out what stage the employee is at and what the employee's expectations are. Furthermore, well-rehearsed work steps that are otherwise solved together on site in the team should generally be leveraged with the help of various creative work tools. For example, in order to conduct a brainstorming session that would normally be conducted in an office in a group room using a whiteboard, it is recommended to use virtual collaborative whiteboards (Expert H). Tools such as Miro or Jira are, according to the experts, proven ways of circumventing the hurdle of the virtual world and can even be viewed more positively than in the office. According to expert C, new methods using VR and artificial intelligence have also proven to be effective

ways of generating team chemistry. It is important to use the right software in the right situations at the right time. This strategy steadily improves over time via testing and experience. Another important point is that online tools can be used to train employees and boost their motivation. Online education is an important part of today's working world. It not only empowers and motivates employees but also simplifies work steps, makes training easier, and saves time and money that can be better used in other areas. For example, gamification, which is based on game-oriented information transfer, can make learning much more engaging and effective than in the office (Expert C). Furthermore, solution demos are a widespread trend to familiarize a large number of employees with tools or methods. The leader can use this as a resource to generate a significant impact on creativity transfer. In order to strengthen physical closeness in addition to work-related tasks, it is important to seek contact outside or after work (Expert D). To further avoid the hurdles of physical closeness, it is important to seek contact outside of work-related tasks. With the help of the tools, it is possible to organize coffee breaks or after-work meetings and simply get in touch with the employees (Expert A). To generate all these opportunities, it is nevertheless important that the employee is equipped with the right hardware and software. The leader should consult with the employees to see if they are happy with their hardware and if not, equip them with the right tools if possible.

4.3.2 Virtual Actions

Virtual actions are more about the operations and liberties that a leader should take in order to stimulate the creativity of the employee. The activities rely on the tools since the actions are not achievable without the right hardware and software.

As previously mentioned, virtual communication plays an essential part in the transferability of creativity, as communication is often the key to success. The leader should be in a strong communicative relationship with the employees as often as possible. Simply being a contact person for the employees has an immense influence on their well-being and therefore on their creativity (Expert E). The leader should actively show that he is there for the employee, regardless of whether it is about work-related topics or private topics. The social bond is drastically increased. This allows a leader to respond much better to the needs of the employee. Needs include, for example, social needs at work, safety needs at work, or basic

needs at work. People are satisfied when they are taken into account and their needs are met as much as possible. By responding to the needs of employees, managers show that employees are valued and important to the company (Expert F).

Allowing the individual employee to select how he or she will achieve his or her goal is another critical component in boosting creativity in the virtual workplace. The time management involved should therefore be planned by the employee. The leader provides the employee with a direction in which the end product should look like. This gives the employee the chance to give free rein and reach the goal himself. By planning their own strategy, the employee's creativity is stimulated and thus promoted. According to expert D, this has a significant impact on the final outcome since many other crucial elements that no one considered before is included in the final result.

Another essential point is that encouraging positive change, especially when it occurs online, should always be recognized. Any outcomes, responses to inquiries, or even errors in judgment should be valued by the leader, who should then support the employee. Encouraged workers feel internal fulfillment, which heightens their motivation and, consequently, their creativity (Expert E). The leader should also demonstrate the impact of the employee's results on the organization. This leads to the fact that the employee works not only for his individual satisfaction but also for the purpose of the entire company. It is important to add that a manager should also create space for creativity. Employees should always have the opportunity to make a creative contribution if they want to express themselves. The employee has the right to be taken seriously by everyone (Expert I).

4.3.3 Recommendations

Expert Recommendations generated from the interview, as explained in chapter 3, were incorporated into the employee survey to see if the recommendations foster the creativity of the employees. The obtained results of dependencies between individual creativity, transformational leadership, the recommendations, and the home office clearly show that dependencies exist between the variables. The following figure (Figure 3) shows the results of spearman's correlation test.

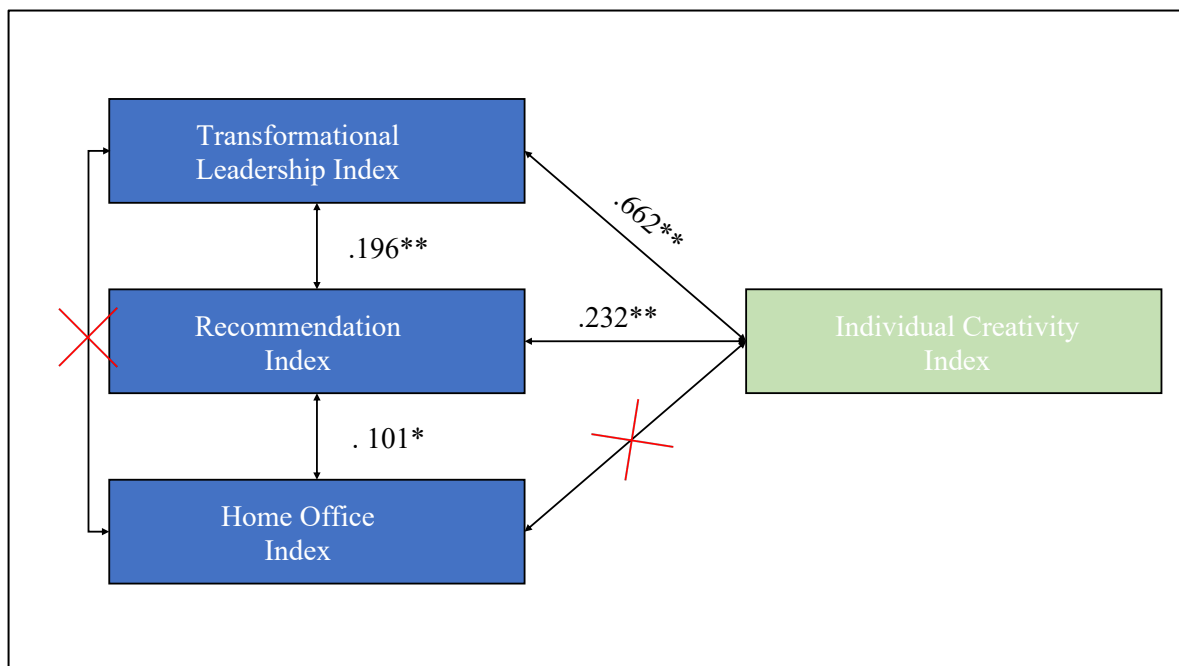


Figure 3: Spearman's Correlation Test Results (own presentation)

The results of the correlation test indicate, as also mentioned in section 4.1, that the transformational leadership index and the creativity index are highly correlated by ,662** with a significance level of 0.01 (2-tailed).

In addition, the transformational leader index also has a highly correlation with expert recommendations. The variables correlate with ,196** at a significance level of 0.01 (2-tailed).

Findings

The spearman correlation test also shows that the expert recommendations index and the individual creativity index are highly correlated by ,232** at a significance level of 0.01 (2-tailed).

The fourth and final correlation exists between home office index and expert recommendations index. The variables correlate with .101* at a significance level of 0.05 (2-tailed).

There is no significant correlation between transformational leadership and home office and between creativity and home office (Illustrated by red crosses on figure 3).

A multiple regression test was also performed to determine if and which variables had a linear statistical relationship, and which has the greatest dependence. The creativity index was the dependent variable, with the transformational leadership index, the expert recommendations index, and the home office index being the independent variable. The following figure (Figure 4) shows the results of the multiple regression test.

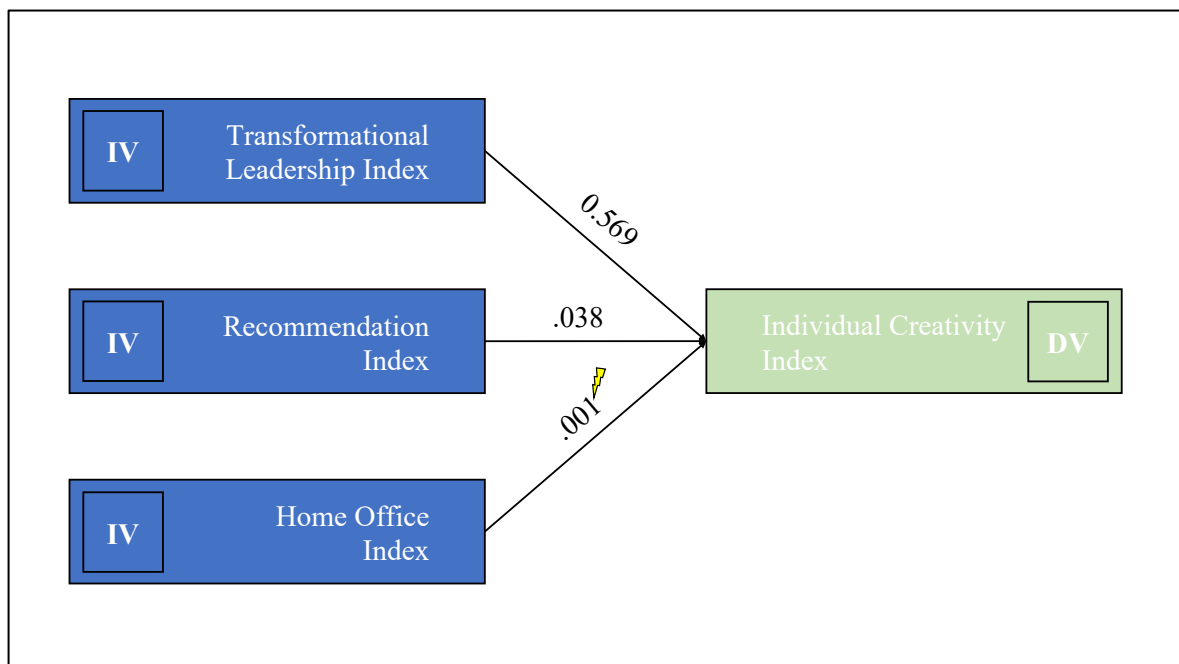


Figure 4: Multiple Regression Test Results (own presentation)

The result shows that the transformational leadership index and the creativity index have the highest dependency on each other. The coefficient between the transformational leadership index and the creativity index from the multiple regression test has a value of .569 at a significance level of $<.001$.

Expert recommendations index and the creativity index have the second highest dependency on each other. The coefficient between the expert recommendations index and the creativity index from the multiple regression test has a value of .038 at a significance level of $<.001$.

The coefficient between the home office index and the creativity index from the multiple regression test has a value of .001 at a significance level of .269. Home office and creativity, therefore, have no dependence on each other. All related results and appendices can be found in Appendix N.

4.3.4 Success of Recommendations

It is important to mention how the experts know that their recommendations are working. All 9 experts agreed that it was generally easy to tell whether the transfer of creativity was successful by looking at the results. For instance, based on the numbers, the turnover, the products sold, or the deals closed, it is possible to analyze whether they have been successful. According to Expert I, it all depends on the specific industry. Expert E, for instance, is able to determine precisely whether the creativity measurements were adequate by conducting one-on-one feedback sessions with the worker or the client. However, it is also important to observe and analyze the employees' emotions. When a goal is achieved, the reactions of the employees show how satisfied they are, and it can be concluded that the creative methods were effective (Expert I).

5 Discussion

In this section, conclusions are drawn about the influence of the virtual environment on fostering of individual creativity by transformational leaders. The prior findings are synthesized and interpreted to answer the main research question as well as the two hypotheses.

5.1 Main Findings

To answer the main research question: "*Does the virtual environment influence transformational leaders in fostering individual creativity?*", expert interviews with transformational leaders from internationally renowned companies have been conducted. An executed quantitative survey was applied to cover research gaps from the perspective of employees. With the help of this mix of research approaches, it could be concluded that the virtual environment has an influence on transformational leaders in fostering individual creativity.

According to the experts, the virtual environment has an influence on the transition, but it does not always have to have a negative influence, therefore Hypothesis 1 "*Virtual environment influences transformational leadership in fostering individual creativity*" can be accepted. As a result, Hypothesis 0 is not accepted. It is constantly dependent on the work context, the person to be led, and the leader. However, with the help of various techniques and tools that have been given, this hurdle can be overcome and positively influenced. This statement goes hand in hand with the opinion of Shin and Zhou, who believe that creativity can be strongly influenced by different techniques and manipulations (Shin & Zhou, 2003).

The quantitative study, which served as an enlargement of the literature and the expert interviews, clearly illustrates that there are relationships between individual creativity, transformational leadership, the expert recommendations, and the virtual world.

The literature, especially Bass, has shown, transformational leadership has a strong influence on the creative behavior of employees (Bass & Riggio, 2005). This conclusion was also proven by the author. According to the study, transformational leadership and creativity are strongly correlated. It can be concluded that the more a leader has transformational leadership styles capabilities, the more the creativity of the employee is fostered. With regard to the further influence of the home office, it can be clearly said with the help of the expert interviews that it creates challenges and hurdles by fostering creativity. This view, however, could not be decided directly by the results of the quantitative survey. With the help of expert recommendations, which include virtual tools and virtual activities, this hurdle can be overcome, and the author could prove that individual creativity is strongly stimulated by the expert recommendations. This could again be attributed to previous research, as Avolio in particular has shown that the use of electronic media is important for social interaction between employees and managers (Avolio et al., 2000). The following figure (Figure 5) illustrates this result:

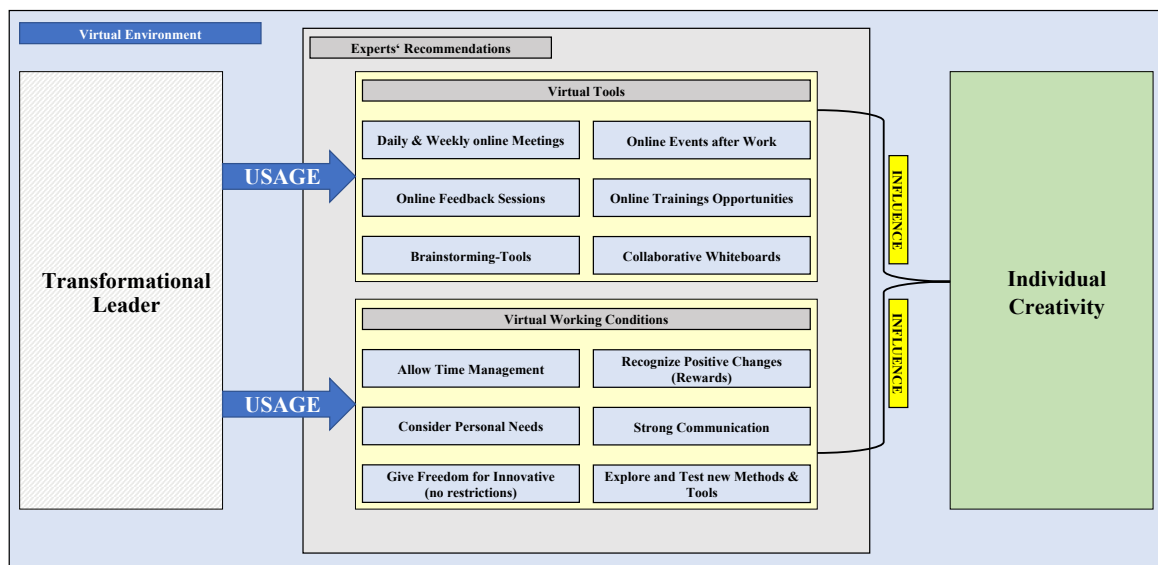


Figure 5: Experts' Recommendations Results (own presentation)

In addition, it was shown that there is a strong correlation between home office and expert recommendations. This leads to the conclusion that transformational leadership and its expert recommendations have a direct influence on individual creativity. Since home office has no direct influence on creativity but on recommendations, it can be concluded that home

office does have a passive influence on individual creativity, since the more home office there is, the more expert recommendations are used by the transformational leaders, which are both directly influence individual creativity. The following figure illustrates this result

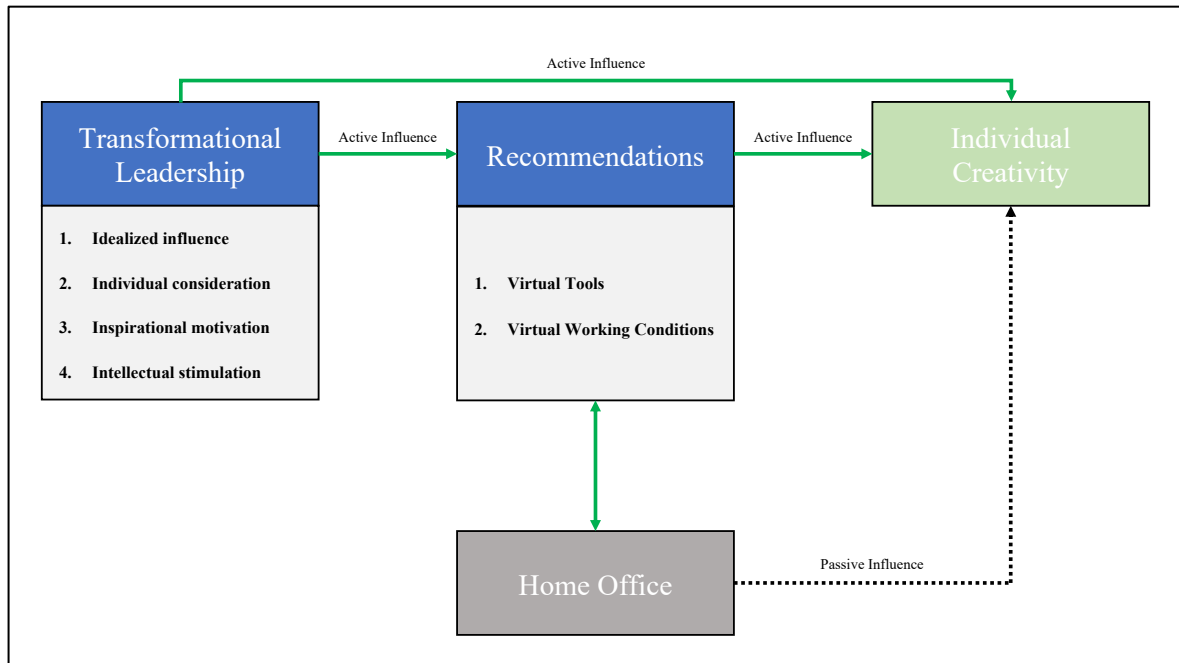


Figure 6: Interpretation of Results (own presentation)

Therefore, hypothesis H2 which states “The usage of the expert recommendations is positively associated with fostering individual creativity by transformational leaders“ can be accepted. Referring to the main research question, it can be concluded transformational leaders are influenced by the virtual environment in fostering individual creativity.

5.2 Limitations and Suggestions for further Research

This Master's thesis has been constrained by a number of factors, which has resulted in a variety of criticisms and suggestions for improvement for subsequent study.

Due to the Covid-19 pandemic, qualitative research was very limited as all expert interviews could only be conducted using online tools and thus could not take various factors into account. Personal contact and the response to various questions could not be accurately

determined using the virtual environment. For further research, it could be considered whether the semi-structured interviews could take place on-site or perhaps with new tools and aids to precisely address the emotions of the interviewees.

Another limitation of the study is the focus on only one leadership style. With the research method the impact of virtual environment in the transfer of individual creativity by transformational leaders could be proven. Follow-up research should investigate other leadership styles and see if other leadership styles have an essential advantage in the transfer of individual creativity online. It's also crucial to understand that research demonstrates that there is no one leadership style that is always the most successful. Leadership development efforts should concentrate on adaptive, strengths-based leadership techniques. Empirical work can support this process by examining which approaches and methods over all different leadership styles best serve fostering creativity instead of focusing on just transformational leadership.

In the quantitative questionnaire, the employee should assess his creativity level from his own point of view. Since every employee assessed himself very well, an exaggerated self-assessment could be determined. For future research, the transformational leaders should be asked about the employees if they have the capacity to do so, so that no employee assesses themselves too positively.

Since creativity is essential in almost all industries, it is important to distinguish between industries where creativity is not such an important factor. Different industries have different requirements for creativity. In the future, it might be useful to focus on one industry to avoid breakouts and get more precise and targeted statements

Lastly, it is also important to note that most of the experts are internationally active but based in Germany. It might be important for the future that the survey participants come from the European region. Since most of them come from the USA, different views on working methods and perceptions might be identified.

6 Conclusion

This work sought to understand the impact of the virtual environment on fostering individual creativity by transformational leaders. Data collection was conducted using a mixed research method. First, the qualitative research method of expert interviews was used to obtain the opinion of the transformational leaders. Subsequently, a quantitative questionnaire was used to determine the perspective of the employees, whereby information from the expert interviews was integrated to see whether these were effective.

The current situation in the world of work, the literature as well as the analysis and evaluation of this research clearly show that the current world has a shift toward hybrid working models. Every day, both employee expectations and the diversity of work models increase. As a result, leaders' work environments, how they are managed, and how they foster creativity are constantly evolving. This study demonstrates that the virtual world has an impact on encouraging individual creativity, although these issues can be solved using a variety of strategies.

In the future, a leader should always be aware of new tools and software possibilities, because these can positively affect the daily work and thus also the transfer of creativity. In the real estate sector, for example, VR and live cameras were used to virtualize property inspection. Thus, during the Covid-19 Pandemic, the customer was able to view further apartments without any problems. This example demonstrates emphatically that, even if it is now believed that virtualization is not feasible in a variety of industries, there is a possibility that there will be solutions in the future. Therefore, a leader should always be up to date on what technology can do in terms of creativity development. Accordingly, not only the tools are the focus, but the leader should also always be up to date with the latest techniques and methods of fostering creativity. He needs to experiment with novel techniques that might be more effective virtually, incorporate them into the business, and then consolidate them if they are effective. In addition to tools and methods, the human factor should not be forgotten. Creative work is usually carried out by a human being. Social issues and freedoms play a major role in creative work. The leader should put himself in the situation of the employee and think what makes a person work better in regard to creative capabilities. In a virtual environment, it can be difficult to have the exact same contact options and channels as in the

Conclusion

office, but this distance issue can be, for example, avoided through continuous and open communication.

Due to the trend of hierarchical gradation, the strong connection between leaders and their employees becomes more and more narrow and important and therefore the problem of the virtual environment must be bypassed. A problem therefore can be turned into an advantage. Creativity promotion is and will remain an essential factor in almost all business areas, no matter how crucial the result is creativity is needed for human survival.

References

- Abernathy, W. J., & Clark, K. B. (1985). Innovation: Mapping the winds of creative destruction. *Research Policy*, *14*(1), 3–22. [https://doi.org/10.1016/0048-7333\(85\)90021-6](https://doi.org/10.1016/0048-7333(85)90021-6)
- Anderson, N., & King, N. (2010). *Innovation in organizations*. *8*, 1–34.
- Avolio, B. J. (1994). The “natural”: Some antecedents to transformational leadership. *International Journal of Public Administration*, *17*(9), 1559–1581. <https://doi.org/10.1080/01900699408524956>
- Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership. *The Leadership Quarterly*, *11*(4), 615–668. [https://doi.org/10.1016/S1048-9843\(00\)00062-X](https://doi.org/10.1016/S1048-9843(00)00062-X)
- Awan, U., Sroufe, R., & Kraslawski, A. (2019). Creativity enables sustainable development: Supplier engagement as a boundary condition for the positive effect on green innovation. *Journal of Cleaner Production*, *226*, 172–185. <https://doi.org/10.1016/j.jclepro.2019.03.308>
- Bass, B. M. (1985). *Leadership and Performance Beyond Expectations*. Free Press.
- Bass, B. M., & Avolio, B. J. (1994). *Improving Organizational Effectiveness Through Transformational Leadership*. SAGE.
- Bass, B. M., & Riggio, R. E. (2005). *Transformational Leadership* (2nd ed.). Psychology Press. <https://doi.org/10.4324/9781410617095>
- Bénabou, R., & Tirole, J. (2003). Intrinsic and Extrinsic Motivation. *The Review of Economic Studies*, *70*(3), 489–520. <https://doi.org/10.1111/1467-937X.00253>
- Bendzsa, C. (2018, October 24). *IBM 2010 Global CEO Study: Creativity Selected as Most Crucial Factor for Future Success*. <https://www.ibm.com/news/ca/en/2010/05/20/v384864m81427w34.html>

- Burns, J. M. (1978). *Leadership*. Harper & Row.
- Capgemini. (2020). *The future of work: From remote to hybrid*.
<https://www.capgemini.com/insights/research-library/the-future-of-work/>
- Charalampous, M., Grant, C., Tramontano, C., & Michailidis, E. (2018). Systematically reviewing remote e-workers' well-being at work: A multidimensional approach. *European Journal of Work and Organizational Psychology, 28*, 1–23.
<https://doi.org/10.1080/1359432X.2018.1541886>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). L. Erlbaum Associates.
- Cook, P. (1998). The creativity advantage - is your organization the leader of the pack? *Industrial and Commercial Training, 30*(5), 179–184.
<https://doi.org/10.1108/00197859810225652>
- Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In *Handbook of creativity* (pp. 313–335). Cambridge University Press.
- Csikszentmihalyi, M. (2007). *Kreativität: Wie Sie das Unmögliche schaffen und Ihre Grenzen überwinden [Creativity: How to achieve the impossible and overcome your limits]* (M. Klostermann, Trans.; 7th ed.). Klett-Cotta Verlag.
- Csikszentmihalyi, M. (2013). *Creativity: The psychology of discovery and invention* (First Harper Perennial modern classics edition). Harper Perennial Modern Classics.
- Csikszentmihalyi, M. (2014). *The Systems Model of Creativity: The Collected Works of Mihaly Csikszentmihalyi* (1st ed. 2014). Springer Netherlands : Imprint: Springer.
<https://doi.org/10.1007/978-94-017-9085-7>
- Deuerling, T. (2016). Kreativität und ihre Bedeutung für Formatinnovationen. In T. Deuerling (Ed.), *Innovationsmanagement für neues Fernsehen: Entwicklung von*

- Bewegtbildformaten in Abhängigkeit vom Innovationsgrad [Innovation Management for New Television: Development of Moving Picture Formats as a Function of the Degree of Innovation]* (pp. 73–107). Springer Fachmedien.
https://doi.org/10.1007/978-3-658-11669-9_3
- Egan, T. M. (2005). Factors Influencing Individual Creativity in the Workplace: An Examination of Quantitative Empirical Research. *Advances in Developing Human Resources*, 7(2), 160–181. <https://doi.org/10.1177/1523422305274527>
- Einstein, A., & Stachel, J. J. (1987). *The collected papers of Albert Einstein*. Princeton, N.J. : Princeton University Press.
- Eisenbeiß, S. A., & Boerner, S. (2013). A Double-edged Sword: Transformational Leadership and Individual Creativity. *British Journal of Management*, 24(1), 54–68.
<https://doi.org/10.1111/j.1467-8551.2011.00786.x>
- Flick, U., Kardoff, E. von, & Steinke, I. (2004). *A Companion to Qualitative Research*. SAGE.
- Geschka, H., Schaudé, G. R., & Schlicksupp, H. (1976). Modern Techniques for Solving Problems. *International Studies of Management & Organization*, 6(4), 45–63.
<https://doi.org/10.1080/00208825.1976.11656211>
- Glăveanu, V.-P. (2010). Principles for a Cultural Psychology of Creativity. *Culture & Psychology*, 16(2), 147–163. <https://doi.org/10.1177/1354067X10361394>
- Gong, Y., Huang, J.-C., & Farh, J.-L. (2009). Employee Learning Orientation, Transformational Leadership, and Employee Creativity: The Mediating Role of Employee Creative Self-Efficacy. *Academy of Management Journal*, 52(4), 765–778. <https://doi.org/10.5465/amj.2009.43670890>
- Guilford, J. P. (1950). *Fundamental statistics in psychology and education*, 2nd ed (pp. xiii,

- 633). McGraw-Hill.
- Guilford, J. P. (1967). Creativity: Yesterday, Today and Tomorrow. *The Journal of Creative Behavior*, *1*(1), 3–14. <https://doi.org/10.1002/j.2162-6057.1967.tb00002.x>
- Guilford, J. P. (1975). Varieties of Creative Giftedness, Their Measurement and Development. *Gifted Child Quarterly*, *19*(2), 107–121. <https://doi.org/10.1177/001698627501900216>
- Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of Business Research*, *62*(4), 461–473. <https://doi.org/10.1016/j.jbusres.2007.07.032>
- Hammond, M., Neff, N., Farr, J., Schwall, A., & Zhao, X. (2011). Predictors of Individual-Level Innovation at Work: A Meta-Analysis. *Psychology of Aesthetics, Creativity, and the Arts*, *5*, 90–105. <https://doi.org/10.1037/a0018556>
- Hoch, J. E., & Kozlowski, S. W. J. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, *99*(3), 390–403. <https://doi.org/10.1037/a0030264>
- Isbell, R., & Raines, S. C. (2012). *Creativity and the Arts with Young Children*. Cengage Learning.
- Johansson-Sköldberg, U., Woodilla, J., & Çetinkaya, M. (2013). Design Thinking: Past, Present and Possible Futures. *Creativity and Innovation Management*, *22*(2), 121–146. <https://doi.org/10.1111/caim.12023>
- Kaplan, D. E. (2019). Creativity in Education: Teaching for Creativity Development. *Psychology*, *10*(2), 140–147. <https://doi.org/10.4236/psych.2019.102012>
- Kilian, G. (2019). New year, new challenges. *SA Pharmaceutical Journal*, *86*(1), 52–52. <https://doi.org/10.10520/EJC-148b606ba8>

- Lichtenstein, J. D., Amato, J. T., Holding, E. Z., Grodner, K. D., Pollock, E. N., Marschall, K. P., & Scull, S. (2022). How We Work Now: Preliminary Review of a Pediatric Neuropsychology Hybrid Model in the Era of COVID-19 and Beyond. *Archives of Clinical Neuropsychology*, 37(1), 40–49. <https://doi.org/10.1093/arclin/acab041>
- Lopez, S. J., Pedrotti, J. T., & Snyder, C. R. (2018). *Positive Psychology: The Scientific and Practical Explorations of Human Strengths*. SAGE Publications.
- Mayring, P. (2016). *Einführung in die qualitative Sozialforschung: Eine Anleitung zu qualitativem Denken* (6., überarbeitete Auflage). Beltz.
- Mumford, M., Hester, K. S., & Robledo, I. C. (2012). Creativity in Organizations. In *Handbook of Organizational Creativity* (pp. 3–16). Elsevier. <https://doi.org/10.1016/B978-0-12-374714-3.00001-X>
- Mumford, M., Scott, G., Gaddis, B., & Strange, J. (2002). Leading Creative People: Orchestrating Expertise and Relationships. *The Leadership Quarterly*, 13, 705–750. [https://doi.org/10.1016/S1048-9843\(02\)00158-3](https://doi.org/10.1016/S1048-9843(02)00158-3)
- Nagel, L. (2020). The influence of the COVID-19 pandemic on the digital transformation of work. *International Journal of Sociology and Social Policy*, 40(9/10), 861–875. <https://doi.org/10.1108/IJSSP-07-2020-0323>
- Nakamura, J., & Csikszentmihalyi, M. (2014). The Concept of Flow. In M. Csikszentmihalyi (Ed.), *Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi* (pp. 239–263). Springer Netherlands. https://doi.org/10.1007/978-94-017-9088-8_16
- Newell, A., Shaw, J. C., & Simon, H. A. (1962). The processes of creative thinking. In *Contemporary approaches to creative thinking: A symposium held at the University of Colorado* (pp. 63–119). Atherton Press. <https://doi.org/10.1037/13117-003>

- Nickson, D., & Siddons, S. (2003). *Remote Working: Linking people and organizations*. Routledge. <https://doi.org/10.4324/9780080474168>
- Nonaka, I. (1998). The Knowledge-Creating Company. In *The Economic Impact of Knowledge* (pp. 175–187). Elsevier. <https://doi.org/10.1016/B978-0-7506-7009-8.50016-1>
- Olson, M. H. (1983). Remote office work: Changing work patterns in space and time. *Communications of the ACM*, 26(3), 182–187. <https://doi.org/10.1145/358061.358068>
- Patterson, C. (2002). *INDIVIDUAL AND ORGANIZATIONAL CREATIVITY*. 7, 13.
- Rank, J., Pace, V. L., & Frese, M. (2004). Three Avenues for Future Research on Creativity, Innovation, and Initiative. *Applied Psychology*, 53(4), 518–528. <https://doi.org/10.1111/j.1464-0597.2004.00185.x>
- Reiter-Palmon, R., & Illies, J. J. (2004). Leadership and creativity: Understanding leadership from a creative problem-solving perspective. *The Leadership Quarterly*, 15(1), 55–77. <https://doi.org/10.1016/j.leaqua.2003.12.005>
- Richards, R. (2007). *Everyday creativity and new views of human nature: Psychological, social, and spiritual perspectives* (pp. xiii, 349). American Psychological Association. <https://doi.org/10.1037/11595-000>
- Roelofsen, P. (2002). The impact of office environments on employee performance: The design of the workplace as a strategy for productivity enhancement. *Journal of Facilities Management*, 1(3), 247–264. <https://doi.org/10.1108/14725960310807944>
- Russ, S. W. (1999). *Affect, Creative Experience, and Psychological Adjustment*. Psychology Press.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions

- and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67.
<https://doi.org/10.1006/ceps.1999.1020>
- Saint-Exupéry, A. de. (2021). *The Little Prince: And Letter to a Hostage*. Penguin UK.
- Sawyer, R. K., John-Steiner, V., Moran, S., Sternberg, R. J., Feldman, D. H., Csikszentmihalyi, M., Gardner, H., & Nakamura, J. (2003). *Creativity and Development*. Oxford University Press.
- Schlicksupp, H. (1977). Idea-generation for industrial firms—Report on an international investigation. *R&D Management*, 7(2), 61–69. <https://doi.org/10.1111/j.1467-9310.1977.tb00116.x>
- Schlicksupp, H. (1995). *Führung zu kreativer Leistung: So fördert man die schöpferischen Fähigkeiten seiner Mitarbeiter [Leadership for creative performance: how to foster the creative abilities of your employees]*. expert verlag.
- Schlicksupp, H., Dagneaud, N., & Garnier-Coester, C. (2011). Innovationsforschung. In G. Naderer & E. Balzer (Eds.), *Qualitative Marktforschung in Theorie und Praxis: Grundlagen, Methoden, Anwendungen [Qualitative Market Research in Theory and Practice: Fundamentals, Methods, Applications]* (pp. 437–458). Gabler.
https://doi.org/10.1007/978-3-8349-6790-9_21
- Shalley, C. E. (1995). Effects of Coaction, Expected Evaluation, and Goal Setting on Creativity and Productivity. *Academy of Management Journal*, 38(2), 483–503.
<https://doi.org/10.5465/256689>
- Shin, S. J., & Zhou, J. (2003). Transformational Leadership, Conservation, and Creativity: Evidence from Korea. *The Academy of Management Journal*, 46(6), 703–714.
<https://doi.org/10.2307/30040662>
- Sternberg, R. J. (1999). *Handbook of Creativity*. Cambridge University Press.

- Sternberg, R. J. (2010). Teaching for creativity. In *Nurturing creativity in the classroom* (pp. 394–414). Cambridge University Press.
<https://doi.org/10.1017/CBO9780511781629.020>
- Still, A., & d’Inverno, M. (2016). A history of creativity for future AI research. *Proceedings of the 7th Computational Creativity Conference (ICCC 2016)*.
- Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An Examination of Leadership and Employee Creativity: The Relevance of Traits and Relationships. *Personnel Psychology, 52*(3), 591–620. <https://doi.org/10.1111/j.1744-6570.1999.tb00173.x>
- Tushman, M. L., & O’Reilly, C. A. (1996). Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. *California Management Review, 38*(4), 8–29. <https://doi.org/10.2307/41165852>
- Urban, K. K. (1991). On the development of creativity in children. *Creativity Research Journal, 4*(2), 177–191. <https://doi.org/10.1080/10400419109534384>
- West, M. (2002). Sparkling Fountains or Stagnant Ponds: An Integrative Model of Creativity and Innovation Implementation in Work Groups. *Applied Psychology, 51*.
<https://doi.org/10.1111/1464-0597.00951>
- Zhou, J. (2015). *The Oxford Handbook of Creativity, Innovation, and Entrepreneurship*. Oxford University Press.

Appendices

Appendix A: Expert interview: BearingPoint

Interview questionnaire Transformational leaders foster creativity remotely							
Introductory Questions:							
STEP A							
Data Protection Agreement							
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
A3	Is the interview allowed to be recorded? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
STEP B:							
Information about Interview							
B1	Date of Interview 20.07.2022						
B2	Place of Interview Online (Zoom Call)						
B3	Name of the Interviewee Aurianne Magnin						
B4	Name of Interviewer Lucas Stemmler						
STEP C:							
Company Information							
C1	Name of the Company BearingPoint						
C2	Founding Year 1997						
C3	Employees 4.648 (2020)						
C4	Country Portugal						
C5	Headquarter Amsterdam, Netherlands						
C6	Industry Management Consultancy (Management and Technology Consulting)						
STEP D:							
Position Information							
D1	Position Name Consultant						
D2	Employed since 2020						
D3	Position since 2021						
D4	Responsible Task Consulting in Investment Banking and Finance						
D5	Responsible for how many Employees 3						
D6	Language English						
Key Questions:							
STEP E:							
To what extent is the leader transformational?							
		(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	As a leader do you act as a Role Model?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	As a leader, do you respond to the individual needs of your employees in working environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	As a leader, do you try to motivate employees intrinsically with an inspiring vision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E4	As a leader, do you stimulate the creative and innovative abilities of your employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5	As a leader, do you try to inspire the employee in such a way that he or she is not only self-motivated but also acts on his or her own initiative for the company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

STEP F:	
Creativity	
F1	Do you think creativity is important in your business? Why? "Yes, definitely. Creativity is very important in my segment! Creativity brings new ideas and innovation. It strongly strengthens teamwork and that is essential in our daily work. What is also very interesting is that creativity makes every employee look in different directions and creates new perspectives."
F2	Do you pay explicit attention to promoting the creativity of your employees? "Yes, absolutely. I am a big supporter of handing over creativity. I make sure almost every day that employees have room for creativity. For me, it starts at the base, in the management of the employees. In almost every task I give my employees a clear goal without telling them how to get there. The employees have a free space in terms of content and time that they can allocate themselves to reach their goal."
F3	How do you foster creativity? Which practices? "As I have already told you, it is important for me that the employee has the freedom to organize his work himself. I know from past experience that this way of working works better, and the results are better, and the employee is also more satisfied. Because when an employee is more satisfied, his work is also better. This freedom avoids possible stress that causes them to hurry and not think straight or right. In addition to the freedom, it is also important for me that we meet daily in the team and exchange all updates. Everyone presents their current status and new ideas here. Every employee has the right to present his or her ideas. These ideas are then discussed, evaluated and, if necessary, elaborated in the team."
F4	How do you know your creativity practices are working? "It is very clear in our industry by the result of the employees and the satisfaction of the customers. If the tasks are done well and the creative work is needed, it is a sign that the creative promotion has worked. Our company places a strong emphasis on communication with other teams. I consult with other team leads from time to time to see how they are working creatively. Often there are overlaps in the practices. This also shows me that the activities are effective, because they also work for other teams."
STEP G	
Remote Work and Creativity	
G1	Do you work/ or did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like? "At my current project, we work two weeks remotely and then spend one week at the client's office. It's a kind of hybrid working model."
G2	Do you think there is difference in the fostering creativity remotely to office? "Yes absolutely, you don't see the body language of your members when you propose a new creative idea. It might be more difficult to share it. However, working online encourages the reflex to search the internet, which can lead to more creativity. There are advantages and disadvantages. I often have
<i>the feeling that employees dare to be more creative when they work from home. Maybe that's because they don't want it to look like they waste time."</i>	
If yes <input checked="" type="checkbox"/>	
G2.1	What are the challenges in fostering creativity online? "In my opinion, there are many hurdles in working remotely. Especially in the transfer of creativity. It is very difficult to feel, analyze or stimulate the closeness of your collaborators through online meetings. The difficulty is often simply the virtual distance. You don't get to see a lot of things and often only see the end results. It is a difficult time in terms of handing over creativity and remote work. The closeness of brainstorming or developing new strategies is simply missing in virtual work. Of course, there are many new working methods but I think it is very difficult to virtualize onsite work in terms of creativity."
G2.2	How do you counter these problems, as a leader? "What is very important at BearingPoint at the moment is communication within the teams. We organize virtual coffee breaks to stay in constant contact with all employees. The contact during these times is simply one of the most important factors to be able to work creatively. We also have daily virtual meetings at 11:00 a.m. to share ideas, develop new strategies and concepts and support each other. When it comes to creative work, we use every opportunity to promote it and it works quite well. As mentioned before, the freedom of the tasks to be accomplished plays a major role in terms of creativity. It is simply important to leave room for the employees."
If No <input type="checkbox"/>	
G2.3	In your opinion, does the distance does not play a role in the fostering creativity? "In general, I think it is very important to have a lot of contact with your employees, colleagues and superiors. Every employee should have the freedom to share experiences and knowledge within the company. I also strongly believe that every employee should have the opportunity to express their opinion not only work related. It is important that team members attend conferences or give presentations to actively involve them in the company. This often stimulates employees' creative approaches."
G2.4	Do you apply the same practices in office-based work and remote work? "I think it's becoming more and more important to get to know virtual tools and programs that have something to do with creativity, which is becoming more and more popular. There will be a huge range of tools and it is important to know the right ones and be able to use them. I use tools like "Miro" a lot now and it is a good alternative to Brainstorm Ousight. To make employees remotely efficient, creativity is a big step. Through self-learning or tools, people become more motivated to foster their creativity. Currently, I also believe that too many leaders do not think enough about creativity or try to promote it. There is a huge lack of creative leaders. Many workers only see the
G3	What Tips would you give to other leaders to foster creativity remotely? "With Corosa, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?"
G4	With Corosa, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely? "I think it's becoming more and more important to get to know virtual tools and programs that have something to do with creativity, which is becoming more and more popular. There will be a huge range of tools and it is important to know the right ones and be able to use them. I use tools like "Miro" a lot now and it is a good alternative to Brainstorm Ousight. To make employees remotely efficient, creativity is a big step. Through self-learning or tools, people become more motivated to foster their creativity. Currently, I also believe that too many leaders do not think enough about creativity or try to promote it. There is a huge lack of creative leaders. Many workers only see the

Appendices

		<i>monetary incentive and try to think in terms of results, which makes no sense for the future."</i>
STEP H		
Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	"No, from my side there is nothing to add."

Appendix B: Expert interview: Deloitte

Interview questionnaire Transformational leaders foster creativity remotely	
Introductory Questions:	
STEP A	
Data Protection Agreement	
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
STEP B:	
Information about Interview	
B1	Date of Interview 21.07.2022
B2	Place of Interview Remote (Zoom)
B3	Name of the Interviewee Liron Schwick
B4	Name of Interviewer Lucas Stemmler
STEP C:	
Company Information	
C1	Name of the Company Deloitte GmbH
C2	Founding Year 1845
C3	Employees 354'000
C4	Country Germany
C5	Headquarter London, UK
C6	Industry Auditing

STEP D:							
Position Information							
D1	Position Name	Senior Consultant					
D2	Employed since	2020					
D3	Position since	2021					
D4	Responsible Task	Risk Advisory					
D5	Responsible for how many Employees	4					
D6	Language	German					
Key Questions:							
STEP E:							
To what extent is the leader transformational?							
		(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	As a leader do you act as a Role Model?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	As a leader, do you respond to the individual needs of your employees in working environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	As a leader, do you try to motivate employees intrinsically with an inspiring vision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E4	As a leader, do you stimulate the creative and innovative abilities of your employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E5	As a leader, do you try to inspire the employee in such a way that he or she is not only self-motivated but also acts on his or her own initiative for the company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E6	I use transformational leadership to lead my employees.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

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STEP F:

Creativity

F1	Do you think creativity is important in your business? Why?	"As my job requires mainly regulatory consulting for payments and IT infrastructure, we don't give so much room for creativity. During an audit project, we give live demos, well prepared and structured to present results. We don't bring creativity to the rules governing accounting and financial reporting, and internal auditors do not create the regulations; rather, they ensure that the rules are followed. Creativity is however needed for internal projects, as well as for the development of audit projects with automated self-running AI."
F2	Do you pay explicit attention to promoting the creativity of your employees?	"Rather no"
F3	How do you foster creativity? Which practices?	"We always leave room for maneuver, it doesn't matter how the colleagues achieve their goals, the main thing is that they get it done. Someone can be creative when the leader doesn't use any pressure or try to discourage the worker. For example, a working student in physics and mathematics who loves programming will only get creative while performing tasks relating to IT, and automated processes. Encouraging him or her to work creatively will pay off."
F4	How do you know your creativity practices are working?	"This working student created completely automated Java Fix slides, thanks to the room for creativity we left him and made work easier in stressful times. This is a worthwhile example that working creatively helped him to learn by himself VBA and found us a sustaining solution for the future. I didn't see such an improvement in automation in other teams."

STEP G

Remote Work and Creativity

G1	Do you work for did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	"We were working fully remotely even before the Corona crisis, I never had this position in any other way, we now work mostly 50% of our time in the office but the team meeting are always online."
G2	Do you think there is difference in the fostering creativity remotely to office based work?	"This is hard to answer for me since I only work remotely, I can not really estimate the difference. But when the epidemic started, businesses rushed to have the appropriate capabilities in place to support remote work. Many businesses were employing out-of-date equipment, which made them improve their systems."

If yes

G2.4 What are the challenges in fostering creativity online?

G2.3	How do you estimate these problems as a leader?	
If No <input checked="" type="checkbox"/>		
G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	"To me, distance is normal and hasn't become a real influence to fostering creativity, for example, the exercise of brainstorming in a team is the same. There are of course advantages and disadvantages. Compared to working in an office, remote workers' productivity is consistent or even increased. They are sitting comfortably at home, they dare to ask what they want, whereas on site you do not dare so much due to the presence of the hierarchy. I think it is harder to brainstorm, the distance takes the pressure away, but it might be more difficult to participate online for beginners. If a new employee transitions from a regular workplace to one that is primarily based at home, they may feel overburdened. They must not only learn how to function in their new role but also how to use new technology. Managers might therefore devote more time to training a new remote worker."
G2.4	Do you apply the same practices in office based work and remote work?	"Yes, it is difficult to assess the differences, but I think that the opportunity to choose your own hours and work from anywhere, as well as not having to commute, are the main advantages of remote employment. The biggest challenges of remote work, though, are being unable to disengage, having trouble collaborating and communicating, and feeling lonely."
G3	What Tips would you give to other leaders to foster creativity remotely?	"An open communication always drives us to more creative thinking and innovation because we leave room for maneuver. The main goal is to reach good results."
G4	With Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"Creativity needs free space, and remote work offers a lot of free space and opportunities, such as new software tools, platform or even metaverse access."

STEP H

Open Discussion

H1	Is there anything topic related I haven't mentioned that you wish to add?	"No"
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Appendix C: Expert interview: ISC AG

Interview questionnaire
Transformational leaders foster creativity remotely

Introductory Questions:
STEP A

Data Protection Agreement

A1	Declaration of consent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

STEP B:

Information about Interview

B1	Date of Interview	01.08.2022
B2	Place of Interview	Remote (Zoom)
B3	Name of the Interviewee	Dr. Uwe Stemmler
B4	Name of Interviewer	Lucas Stemmler

STEP C:

Company Information

C1	Name of the Company	ISC AG
C2	Founding Year	2003
C3	Employees	1-49
C4	Country	Germany
C5	Headquarter	Germany, Kronberg im Taunus
C6	Industry	Consulting

STEP D:

Position Information

D1	Position Name	CEO & Founder
D2	Employed since	2003
D3	Position since	2003
D4	Responsible Task	CEO
D5	Responsible for how many Employees	1-49
D6	Language	German

Key Questions:
STEP E:

To what extent is the leader transformational?

	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	<i>"Creativity is very important because every company is differently positioned, and different people work together in each organization. Power masters with creative means. Businesses, especially distributors, require creativity to penetrate every corner of the market in order to stand out from rivals. Big, revolutionary ideas that fundamentally alter entire sectors come from creativity. As a result, organizations that encourage creativity and collaboration are more likely to generate these value-adding innovations."</i>
F2	Do you pay explicit attention to promote the creativity of your employees?	<i>"You can't make everyone work creatively. But as a leader, I give freedom to my employees to work more creatively. Businesses nowadays more than ever need soft skills like communication and problem-solving. Additionally, companies need creative abilities like idea generation and employees with a divergent point of view."</i>
F3	How do you foster creativity? Which practices?	<i>"I firmly feel that it is our responsibility as business leaders or HR specialists to assist our organizations in giving our employees jobs purpose. Because the business will succeed when our organizations help people "unleash their human potential". We need to foster a culture of trust, which calls for workers to arrive at work with the belief that their organization is well-run, that things are fair, and that their managers will pay attention to them and give them space. Additionally, they will act if something is incorrect because there is always room for improvement. And doing so entails choosing a course. People want to participate in our businesses when we infuse them with significance and value. They identify with our businesses because they see themselves there, which motivates them to participate, be active, and work hard."</i>
F4	How do you know your creativity practices are working?	<i>"The first metric that shows that unleashing the human potential of employees works is people engagement and a low turnover. We share in a transparent way the feedback from customers, in order to learn from our mistakes and work becomes easier, and more automated, which is beneficial for everyone. Overall, when the number of references increases, we know that creativity has contributed to our business."</i>

STEP G

Remote Work and Creativity		
G1	Do you work or did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did	<i>"Multi-project management On Sight at first. Because of pandemic Hybrid-Model or fully remote"</i>

	the model look like?	
G2	Do you think there is difference in fostering creativity remotely to office-based work?	<i>"Absolutely. You can not promote creativity via the screen, only on the spot in a personal conversation. A little bit in any case, but the successes only in direct conversation. Social interactions inside organizations are crucial for team harmony as well as for creativity and initiatives. They enable the start of a collaborative effort. So the feeling of belonging is important. Teams enter a virtuous circle when they feel that they are a part of a larger group."</i>
If yes <input type="checkbox"/>		
G2.1	What are the challenges in fostering creativity online?	<i>"I think communication is more constructive and calmer on site. While working remotely, we show strategic gap at a conceptual level, with virtual distance. The best way to share an operational project is in presental, when people can stand up and actively participate. It is very different and difficult to draw a list of weaknesses or opportunities when the team is online, it is not advisable to run an operational analysis of a customer's processes through a Zoom call only."</i>
G2.2	How do you counter these problems, as a leader?	<i>"We must acknowledge that the workplace also consists of the organization's structure, procedures, tools, regulations, and methods of operation, as well as the ways in which leaders cultivate culture by setting standards for teamwork, engagement, and interpersonal interactions. The key to creating such a workplace is to see it as both a social structure that needs to be nurtured to bring out the best in people and a structural structure that has to be constructed for efficiency. The idea is to find a good balance between working in the office of the customers and online."</i>
If No <input type="checkbox"/>		
G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What Tips would you give to other leaders to foster creativity remotely?	<i>"In any case, I advise to have a Jour Fix meeting where you should try to stimulate creative thinking, set goals, without trying to accomplish concrete tasks. We must reach our goal by your own efforts, in the office preferably. Leadership has to set clear objectives, in order to create a good collaboration within the team and improve our business."</i>
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity	<i>"Working remotely will continue, especially thanks to the hybrid model agreement. Leaders should expand brainstorming tools, like AI. However, the possibility of unplanned interactions is one advantage of working together in person. It is essential to encourage hybrid model and avoid full remote position."</i>

	remotely?	
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STEP H

Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	"No"

Appendix D: Expert interview: GIZ

Interview questionnaire
Transformational leaders foster creativity remotely

Introductory Questions:
STEP A:

Data Protection Agreement	
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

STEP B:

Information about Interview	
B1	Date of Interview 01.08.2022
B2	Place of Interview Remote (Zoom)
B3	Name of the Interviewee Sophia Hieronymi
B4	Name of Interviewer Lucas Stemmler

STEP C:

Company Information	
C1	Name of the Company Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) ehemals Gesellschaft für Technische Zusammenarbeit (GIZ)
C2	Founding Year 2011 (1977)
C3	Employees 24'977
C4	Country Germany
C5	Headquarter Germany, Bonn
C6	Industry Public Authority

STEP D:

Position Information	
D1	Position Name Senior Administration Specialist
D2	Employed since 2014
D3	Position since 2021
D4	Responsible Task Administration of the international language services
D5	Responsible for how many Employees 5
D6	Language German

Key Questions:
STEP E:

To what extent is the leader transformational?						Miscellaneous or Comments
	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	
E1	As a leader do you act as a Role Model?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
E2	As a leader, do you respond to the individual needs of your employees in the working environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
E3	As a leader, do you try to motivate employees intrinsically with an inspiring vision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E4	As a leader, do you stimulate the creative and innovative abilities of your employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E5	As a leader, do you try to inspire the employee in such a way that he or she is not only self-motivated but also acts on his or her own initiative for the company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

E6	Use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	"Most translation projects necessitate the translator's creativity. A translator must maneuver between two cultures, two languages, and occasionally even two completely dissimilar worldviews. Translators do more than just copy. As part of their work process, they assimilate, elaborate, and simplify knowledge, as a result, their work reflects something personal. Transcreation is the creative process of translating a communication into another language while preserving its content, style, and intent."
F2	Do you pay attention to promote the creativity of your employees?	"Yes, before changing the text for a new audience, translators need to be able to dig deeply into the material they are working on and consider all potential subtleties. Speaking multiple languages increases one's chances of being creative. Knowing more makes you want to explore, create, and find solutions more. We are very careful that our team has access to all the knowledge they need to be creative."
F3	How do you foster creativity? Which practices?	"Occasionally, workers may feel unable to proceed with a translation task. They might be finding it difficult to express the facts as tastefully as the original text, or they might think they can't strike the correct tone or find the right words. Through working groups, we share our different approaches and design work processes in a new and independent way. We always give free space to our employees but also I try to be always available to help brainstorm and mind mapping for a difficult translation text."
F4	How do you know your creativity practices are working?	"Self-esteem of our employee is well valued because it shows that they are confident to share their methods and ideas. Most of the time, when we succeed to implement a creative environment where employees are curious, collaborative and share feedbacks, it is a good sign that they are being creative. Naturally, the satisfaction of our international customer of the final translation is always a good metrics to take into account the good work of our team members."

STEP G:

Remote Work and Creativity		
G1	Do you work for/did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	"Yes, we already adopted a hybrid model for work before corona, early 2019, 2 days at home office 3 days office, during the crisis, we were fully working from home but we could go to office for special cases only. In the near future, our office wants to implement a basis of 10 days a month allowed for home office."

G2	Do you think there is difference in fostering creativity remotely to office-based work?	"Yes, I think direct contact is necessary in our field to be creative, it makes the discussions easier and the editing process flawless. However, when ideas are trapped, a new perspective from the outside might inspire original, innovative thinking. Home office can be as well a source of creativity, but it is harder for manager to foster it."
If yes <input checked="" type="checkbox"/>		
G2.1	What are the challenges in fostering creativity online?	"During the full online mode, we missed the closeness we used to have between colleagues, so much is discussed in the corridors, during the breaks or even in a presental meeting, I is not very noticeable, but I'm convinced we lost a lot of knowledge and ideas without colleagues around."
G2.2	How do you counter these problems, as a leader?	"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meeting, to promote creativity, 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."
If No <input type="checkbox"/>		
G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What tips would you give to other leaders to foster creativity remotely?	"I would suggest to stay constant and keep as much as possible contact/exchange with and within the team, I find very important, to give and receive feedback, responding to needs, create brainstorming sessions, applying and promoting new technologies."
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"Because we already had a hybrid since 2019, we were well prepared, our model was already working well. As the days of home office allowed increased now from 8 to 10 days per month, I believe that this home office is not out of hand, even if some colleagues no longer see each other. We need to plan the presence days and make sure everyone is engaged in the team work, I'd like if all could be in the office on specific days, every 2 weeks for example. It is important to get together while promoting a flexible working environment. It is important to be sure that everyone has their own space and have a decent office. Moreover, softwares will be implemented and more used in the future, there will be more investment in tools to work better online."

STEP H

Open Discussion	
H1	Is there anything topic related I haven't mentioned that you wish to add? "No"

Appendix E: Expert interview: Colliers

Interview questionnaire
Transformational leaders foster creativity remotely

Introductory Questions:
STEP A:

Data Protection Agreement	
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

STEP B:

Information about Interview	
B1	Date of Interview 03.08.2022
B2	Place of Interview Remote (Zoom)
B3	Name of the Interviewee Cornelius Kolb
B4	Name of Interviewer Lucas Stemmler

STEP C:

Company Information	
C1	Name of the Company Colliers International
C2	Founding Year 1976
C3	Employees 18.000
C4	Country Germany
C5	Headquarter Toronto, Kanada
C6	Industry Real Estate

STEP D:

Position Information	
D1	Position Name Senior Analyst to the head of office letting
D2	Employed since 2019
D3	Position since 2021
D4	Responsible Task Real Estate Consulting
D5	Responsible for how many Employees 1-125
D6	Language German

Key Questions:
STEP E:

To what extent is the leader transformational?						Miscellaneous or Comments	
	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree		
E1	As a leader do you act as a Role Model?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	As a leader, do you respond to the individual needs of your employees in the working environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E3	As a leader, do you try to motivate employees intrinsically with an inspiring vision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E4	As a leader, do you stimulate the creative and innovative abilities of your employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5	As a leader, do you try to inspire the employee in such a way that he or she is not only self-motivated but also acts on his or her own initiative for the company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Appendices

E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	"Yes of course, we always need to adapt our buildings to the customer's needs and tastes, you can not always take the same pattern, we always need to reinvent ourselves and the way we sell depending of the audience, we must tailor to our customers."
F2	Do you pay attention to promote the creativity of your employees?	"Yes, of course, we can see employees' progress through weekly calls and shared updates. We evaluate the solutions they choose for problems that have already been addressed by other employees, as well as suggestions for improvement, e.g. for reporting problems and responding to them."
F3	How do you foster creativity? Which practices?	"We foster creativeness through weekly calls, and updates assessments, to be able to see the progress of each employee, their learning curve and own development in the business. We value also coaching from more skilled employees, and improve creativity through story-telling workshops."
F4	How do you know your creativity practices are working?	"We know that an employee has been creative enough when he was able to conclude a deal and sign a contract with a customer, sometimes we receive reference letters from satisfied customers. That's for us the proof of a hard work and perfectly tailored to the customer's need."

STEP G

Remote Work and Creativity		
G1	Do you work or did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	"We have an hybrid model, and I personally do a lot of my work from home."
G2	Do you think there is difference in fostering creativity remotely to office-based work?	"Innovative teamwork requires a true team-based atmosphere where relationships are built via interaction and social time. When the effort is made within the organization, managers notice a significant improvement. When employees are on sight, they have the chance to connect with coworkers from all departments and develop a solid understanding of the business as a whole, as opposed to remaining online and focused just on their own initiatives. This will encourage innovation and enable inspiration and ideas to easily flow between departments."

If yes

G2.1	What are the challenges in fostering creativity online?	"The challenge of home office are the difficulties that everyone has a good internet connection. Online, only one person should talk, otherwise the meeting isn't clear, which makes harder for some people to express their opinion. Some may lack the
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		confidence and experience to explore various platforms, and some may require directed tutorials to understand some activities. However, I found coaching just as effective at home as in the office."
G2.2	How do you counter these problems, as a leader?	"We can overcome those challenges through calls guideline that employees have to follow which allow us to set clearly the objectives and explain the agenda. We always need to check for good internet connection and respond to individual problems. We have available creative online tools to increase the creative thinking of our team. This help to go to the people, ask for feedback, and listen to their point of views. We need to ensure that everyone has a good workplace, even remotely."

If No

G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What tips would you give to other leaders to foster creativity remotely?	"I would advise to use online tools and give as much feedback as possible, this is important. They should communicate on global updates concerning major changes within the company. Leaders need to trust their employees and leave them work independently and give freedom to reach their goals."
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"There are more and more tools to help you, leaders have to adapt, creativity is becoming more and more important to survive in the working world especially in the real estate sector. I am trying to deal with more and more creativity myself, I see myself in other industries how essential creativity is becoming, I am curious how the labor market is developing. As every field, the real estate industry also requires creativity, which is the key to the goal of being distinguished."

STEP H

Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	"No"

Appendix F: Expert interview: Colliers 2

Interview Questionnaire Transformational leaders foster creativity remotely	
Introductory Questions: STEP A	
Data Protection Agreement	
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
STEP B:	
Information about Interview	
B1	Date of Interview 04.08.2022
B2	Place of Interview Remote (Zoom)
B3	Name of the Interviewee Felix Stemmler
B4	Name of Interviewer Lucas Stemmler
STEP C:	
Company Information	
C1	Name of the Company Colliers International
C2	Founding Year 1976
C3	Employees 18.000
C4	Country Germany
C5	Headquarter Toronto, Canada
C6	Industry Real Estate

STEP D:

Position Information	
D1	Position Name Senior Consultant
D2	Employed since 2018
D3	Position since 2020
D4	Responsible Task Real Estate Consultant
D5	Responsible for how many Employees 6
D6	Language German

Key Questions:
STEP E:

To what extent is the leader transformational?						
	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Appendices

E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity

F1	Do you think creativity is important in your business? Why?	"You have to listen to different customers, and understand their needs, in order to be creative and reach your goal, especially when it comes to sales, and to reach a settlement. You have to take employees in hand, show them that telephone acquisition is very important, and they have to be creative to succeed."
F2	Do you pay attention to promote the creativity of your employees?	"Yes, in any case. It's very important because they are the ones who sell the houses."
F3	How do you foster creativity? Which practices?	"Creativity is fostered through cohesion, breaks and lunches in our daily working life. There is also lots of creativity during our work tasks, workshops, leisure activities, sales training, weekly video conferences with training, and feedback for both parties. The most creative ideas come from less stressful situations, this is why we value activities that reduce the pressure. The most important is the freedom you give to your team, in exchange they have to bring you sales, otherwise they have to work longer in the office."
F4	How do you know your creativity practices are working?	"The turnover has doubled since the company was founded, we have results, and good feedback, our mentality is very sales-driven, and the numbers have to be right. A common quote states that 'necessity is the mother of invention', by creating a deadline for something new, we can force ourselves to innovate."

STEP G

Remote Work and Creativity

G1	Do you work for/did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/did the model look like?	"We have hybrid models, with cross-departmental locations which always need to communicate with each other, for example, the office of Frankfurt can have a customer in Hamburg. During the corona crisis, I only work from home, but some activities can not be done from home, like using databases. However, the meetings can be driven fully remotely, the customer meetings often took place online, the visits can be filmed and shared online with a good camera. A creative way to improve our work was the application of the app team Adjust 360 degree visit."
G2	Do you think there is difference in fostering creativity remotely to office-based work?	"Yes, our company has a strong team-driven spirit, with a B2C service provider who has to deal a lot with customers and employees. An open-space office is indeed better, the meetings are easier offline because proximity is very important. They can be done remotely but I believe they have a better impact in person, we can perceive emotions much better and virtual distance can be decisive for us in this industry."

If yes

G2.1	What are the challenges in fostering creativity online?	"With virtual distance, it is hard to have the right perception, to transmit emotions, and sensitivity. When you feel bad at work, and you are online, the lack of physical contact is even harder."
G2.2	How do you counter these problems, as a leader?	"We meet as often as possible and do activities together, have lunch, in order to build emotional bonds. However, we always leave the employee their private space, to go on vacation or leave earlier on Fridays, and find ways to answer people's individual needs. From my experience, this is how remote work goes very well. It is important too to break the routine, to allow the employee's mind to wander about new ideas."

If No

G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What tips would you give to other leaders to foster creativity remotely?	"I would advise leaders to always keep up with the current trends, by motivating employees, being up to date, building business, politics or emotional connections but always maintaining enough distance, a healthy distance, to be seen as a respectful person who triggers creativity, by asking 'so what are your ideas, what do you think about this new project?'"
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"I believe that some niche jobs have developed and succeed from working remotely, people do not feel the need to be in an office. For our business market, online work isn't the best option, we work with a B2C model where we have to be close to the customer and the offices cannot stay empty. In other branches, remote work is definitely possible, especially for online work jobs, like software, where leaders must always adapt to new environments and control the new technologies. Creativity can arise from changing the media, and engaging different thought processes (Mira software)."

STEP H

Open Discussion

H1	Is there anything topic related I haven't mentioned that you wish to add?	"No, everything was discussed very well"
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Appendix G: Expert interview: Mattel

Interview questionnaire
Transformational leaders foster creativity remotely

Introductory Questions:
STEP A:

Data Protection Agreement	
A1	Declaration of consent <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
A3	Is the interview allowed to be recorded? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

STEP B:

Information about Interview

B1	Date of Interview	03.08.2022
B2	Place of Interview	Remote (Zoom)
B3	Name of the Interviewee	Florian Plappert
B4	Name of Interviewer	Lucas Stemmler

STEP C:

Company Information

C1	Name of the Company	Mattel Inc.
C2	Founding Year	1945
C3	Employees	36,300
C4	Country	Germany
C5	Headquarter	EI Segundo, USA
C6	Industry	Toy Industry

STEP D:

Position Information

D1	Position Name	Consumer Products Manager
D2	Employed since	2020
D3	Position since	2021
D4	Responsible Task	Licensing Marketing
D5	Responsible for how many Employees	5
D6	Language	German

Key Questions:
STEP E:

To what extent is the leader transformational?

	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Appendices

E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	"Yes in any case. It's very important to pay attention to how you reach customers from in-store activities to online in-store and e-commerce. You very often have to come up with measures with an interesting marketing mix that meshes together. It makes sense to use methods that are tailored to the target group."
F2	Do you pay attention to promote the creativity of your employees?	"Yes sometimes but often when needed."
F3	How do you foster creativity? Which practices?	"Give freedom that employees can participate in training or workshops. There is a lot of offer and many opportunities in our company. There is also a strong emphasis on open communication. With the help of weekly meetings or daily four fix. Our managers can easily encourage creativity. In our industry it is very important and therefore for some it is a daily task."
F4	How do you know your creativity practices are working?	"Clearly through results and feedback discussions. We often also look at whether it is really well received by the workers and how we can also improve ourselves."

STEP G

Remote Work and Creativity		
G1	Do you work for did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	"Hybrid, flexible model, one team day otherwise you can choose when to come."
G2	Do you think there is difference in fostering creativity remotely to office-based work?	"I think face2face has more impact when you sit with people, you are much more in the subject than in front of the screen, you absorb more, at home you are distracted, you do other things while listening to presentations for example."
If yes <input checked="" type="checkbox"/>		
G2.1	What are the challenges in fostering creativity online?	"It is very important that all employees have a clear head. The work should be taken seriously and especially when it comes to important issues. What you often see is that people hide and let other employees work for them. If you are in the office, this can't happen."
G2.2	How do you counter these problems, as a leader?	"I often have employees participate in workshops and tell them to make a summary for the team meeting from the workshops. This often encourages the employees to always listen 100% and understand what the workshops are about. We also often have creativity workshops that you can participate in on a monthly basis. Otherwise, as mentioned earlier, we have many team

meetings where each employee has a say. Everyone can express themselves creatively and all team members can reflect on the content, which also encourages creative thinking."		
If No <input type="checkbox"/>		
G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What tips would you give to other leaders to foster creativity remotely?	"Find ways to ensure that employees take offers seriously and work on themselves, best perhaps also with positive rewards/incentives that you can apply and then happens... make sure that one also learned something in the workshop, test knowledge, ask him so to speak with nerves that he pays attention and show open communication."
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"Online offers, software offer increases, direction VR, Metaverse, sitting together in the office although home office, simulate advantages"

STEP H

Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	"No, I can't think of anything spontaneously"

Appendix H: Expert interview: Accenture

Interview questionnaire Transformational leaders foster creativity remotely		
Introductory Questions:		
STEP A		
Data Protection Agreement		
A1	Declaration of consent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A3	Is the interview allowed to be recorded	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
STEP B:		
Information about Interview		
B1	Date of Interview	22.08.2022
B2	Place of Interview	Remote (Zoom)
B3	Name of the Interviewee	Anonymously
B4	Name of Interviewer	Lucas Stemmler
STEP C:		
Company Information		
C1	Name of the Company	Accenture GmbH
C2	Founding Year	1989
C3	Employees	710000
C4	Country	Germany
C5	Headquarter	Dublin, Ireland
C6	Industry	Business and Strategy Consulting, Technology and Outsourcing

STEP D:

Position Information	
D1	Position Name HR Business Partner
D2	Employed since 2002
D3	Position since 2019
D4	Responsible Task HR Consultant
D5	Responsible for how many Employees 50+
D6	Language German

Key Questions:

STEP E:

To what extent is the leader transformational?						
	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
E1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Appendices

E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	"Yes, definitely. Creativity plays a very big role, especially in our industry. Every day, every employee encounters new hurdles that can often be overcome with the help of creative ideas. Through creative work, I also notice how excited my employees are working for us. They are more open, more innovative and get more involved in our meetings when they are given creative challenges."
F2	Do you pay explicit attention to promote the creativity of your employees?	"Yes, in any case, as I just mentioned, creativity plays a big role. It is important to promote innovative creativity. New methods, approaches and solutions are essential to survive in the market and to outperform other competitors. Therefore, I try to use creative techniques as much as possible in order to promote the willingness and motivation to work creatively. In today's world, HR plays such a big and important role in the labor market because there are many attractive employees, and you need to retain your employees. This can only take place with innovative and creative ideas that present you better than other companies."
F3	How do you foster creativity? Which practices?	"Many people find it difficult to promote creativity in their company, but you just need to know the basic building blocks and how human thinking works. At Accenture, we use many different ways, such as having daily meetings where each employee can freely present their ideas and thoughts. This encourages every member of the team to think and help shape the ideas. Feedback plays a big role here. Furthermore, we have many opportunities with training and solutions demos to support our employees."
F4	How do you know your creativity practices are working?	"Clearly through the results that are achieved. When the result is positive, I realize that this kind of support or freedom has worked out."

STEP G

Remote Work and Creativity		
G1	Do you work or did you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	"Yes, we have a hybrid working model where each employee can decide how often they go to the office. Most of the time it is one or two days that we agree on in the team so that everyone is there."
G2	Do you think there is difference in fostering creativity remotely to office-based work?	"Yes, in my opinion in any case. The physical closeness to the employees is simply missing. You can act much better and analyze their emotions and can then act in a more targeted way."

If yes <input checked="" type="checkbox"/>		
G2.1	What are the challenges in fostering creativity online?	"In any case, the physical closeness, the communication within the team, you always have to wait a bit to get answers. Brainstorming methods are more difficult - you can't just sit down in a group room and look for creative solutions. There are many small details that add up and have a negative impact on the promotion of creativity."
G2.2	How do you counter these problems, as a leader?	"During the corona pandemic, there has been a major shift in thinking about creativity measures. We were able to work around some of the problems with daily meetings and feedback sessions. We try to get in touch with our colleagues as often as possible to create a clear transparency. I find online tools and other virtual brainstorming tools very helpful. New tools and ideas come on the market every day and you should always keep them on your radar."
If No <input type="checkbox"/>		
G2.3	In your opinion, does the distance does not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What Tips would you give to other leaders to foster creativity remotely?	"My tips are clear communication within the team and across the board. Try to motivate your employees so that they are also very motivated to find new ideas on their own. Feedback is an important factor. And of course, all the new important tools you can use to overcome the online hurdle. For example, we are currently using a new collaborative whiteboard tool which works very well in terms of creative and innovative work."
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	"The future of working models will clearly remain a hybrid model. It is important to adapt your company and to keep up with the trend. I believe that AI, HR and other new possibilities will drastically change the sector here as well. I am very excited about what will happen in the near future, and I am convinced that many work steps will become the norm, whether they take place online or offline. There will soon no longer be any big differences there."

STEP H

Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	"No everything was discussed in great detail."

Appendix I: Expert interview: MGRP

Interview questionnaire
Transformational leaders foster creativity remotely

Introductory Questions:
STEP A:

Data Protection Agreement		
A1	Declaration of consent	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A2	Anonymously	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
A3	Is the interview allowed to be recorded	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

STEP B:

Information about Interview		
B1	Date of Interview	24.08.2022
B2	Place of Interview	Remote (Zoom)
B3	Name of the Interviewee	Anonymously
B4	Name of Interviewer	Lucas Stemmler

STEP C:

Company Information		
C1	Name of the Company	MGRP GmbH
C2	Founding Year	210
C3	Employees	35
C4	Country	Germany
C5	Headquarter	Crailsheim
C6	Industry	Start up - Strategic Consulting

STEP D:

Position Information		
D1	Position Name	Partner
D2	Employed since	2010
D3	Position since	2010
D4	Responsible Task	Project Management
D5	Responsible for how many Employees	150+
D6	Language	German

Key Questions:
STEP E:

To what extent is the leader transformational?						Miscellaneous or Comments	
	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree		
E1	As a leader do you act as a Role Model?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E2	As a leader, do you respond to the individual needs of your employees in the working environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E3	As a leader, do you try to motivate employees intrinsically with an inspiring vision?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E4	As a leader, do you stimulate the creative and innovative abilities of your employees?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E5	As a leader, do you try to inspire the employee in such a way that he or she is not only self-motivated but also acts on his or her own initiative for the company?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

E6	I use transformational leadership to lead my employees	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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STEP F:

Creativity		
F1	Do you think creativity is important in your business? Why?	<i>"Yes, definitely. Creativity is very important in our industry, especially because we are a small company. We always need new ideas and approaches to outshine our competitors. Acquisition is very important, especially for us. We have to stand out and present an attractive offer with our special possibilities. Creativity is also often required in the project itself. We rarely have the same situations in our job. We always have to adapt, and that's where creativity is essential."</i>
F2	Do you pay explicit attention to promote the creativity of your employees?	<i>"Yes, I am trying to foster continuously, but it is very difficult to always do so in the right situation. All employees are different and different people need different management styles. If I take transformational leadership style as a direction, I have often been shown that it works best."</i>
F3	How do you foster creativity? Which practices?	<i>"Clearly through many different creativity techniques. Feedback rounds are our daily business. We grow and improve from feedback. Otherwise, I often give out tasks with a creative background. For example, we have a meeting with the whole company where one employee has to collect a weekly trend analysis and the resulting ideas for our company. Otherwise, I often assign tasks with a creative background. For example, we have a meeting with the whole company where an employee has to create a trend analysis and present the resulting ideas to the company. Here you notice how all employees are inspired and contribute many innovative and creative possibilities."</i>
F4	How do you know your creativity practices are working?	<i>"Clearly, from the results I'm seeing."</i>

STEP G

Remote Work and Creativity		
G1	Do you work in a working environment where remote work or hybrid work is mainly used? If yes, how does/ or did the model look like?	<i>"We work almost exclusively from our home office. We rarely have to visit our clients."</i>
G2	Do you think there is difference in fostering creativity remotely to office-based work?	<i>"I think there are differences, but it doesn't always have to be negative. There are also ways to get around these hurdles or even better than in the office. The distance clearly plays a factor in human closeness that should not be left out."</i>

If yes

G2.1	What are the challenges in fostering creativity online?	<i>"Clearly the virtual distance. It is difficult to analyze the emotions and feelings of an employee via the camera. You have less control over the employees on the whole. But this can also be a good factor for creativity, because I want to give my employees a lot of freedom."</i>
G2.2	How do you counter these problems, as a leader?	<i>"We try to be in contact as often as possible because transparent communication is one of the most important factors, not only to promote creativity. We use many different online tools to foster our creativity. For example, we use Jira to visualize different Kanban boards and to brainstorm and work through new activities. Miro is also a very important tool for brainstorming activities. Besides online tools, we often have explicit creativity workshops where we are briefed by other parties. We then bring this new expertise to our clients..."</i>

If No

G2.3	In your opinion, does the distance also not play a role in the fostering creativity?	
G2.4	Do you apply the same practices in office-based work and remote work?	
G3	What Tips would you give to other leaders to foster creativity remotely?	<i>"Clear and open communication, inspire your employees through inspirational leadership. Be a role model and take all your colleagues' suggestions seriously and try to put yourself in their shoes. In today's world, it is important to be an agile and purposeful company, and creativity simply plays a big role here. Adjustments and changes are hurdles of every worker that can often be successfully and purposefully overcome with creative ideas."</i>
G4	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	<i>"The world as we know it is changing and so is the world of work. I very much believe that remote work will be a constant companion and will stay with us forever. Remote work has become the norm. There are many hurdles to overcome but I believe with the future of tools and new technologies this can be easily overcome. I am excited about the development of creativity techniques in the near future and which ones will be consolidated in the company. It is important to always stay up to date in order to survive in the market."</i>

STEP H

Open Discussion		
H1	Is there anything topic related I haven't mentioned that you wish to add?	<i>"No"</i>

Appendix J: Expert interview: Interview Codes

Number	Topic	Question	Expert	Quotes	Code I	Code II	Code III	Code IV	Code V
1	Importance of fostering creativity in today's working world	Do you think creativity is important in your business? Why?	Expert A	"Yes, definitely. Creativity is very important in my segment. Creativity brings new ideas and innovation. It strongly strengthens teamwork and that is essential in our daily work. What is also very interesting is that creativity makes every employee look in different directions and creates new perspectives."	Innovation	Teamwork	New Perspective	Idea	
			Expert B	"As my job requires mainly regulatory consulting for payments and IT infrastructure, I think that promoting creativity is very important. We don't limit creativity for the sake of well-processed and structured projects. We don't limit creativity for the sake of regulations; rather, they ensure that the rules are followed. Creativity is however needed for internal projects, as well as for the development of audit projects with automated self-running AI."	Live Demos	Development	Structured		
			Expert C	"Creativity is very important because every company is differently positioned, and different people work together in each organization. Power masters with creative means find ways to overcome their position and create new ideas to penetrate every corner of the market in order to stand out from rivals. Big, revolutionary ideas that fundamentally alter entire sectors come from creativity. As a result, organizations that encourage creativity and collaboration are more likely to generate these value-adding innovations."	Stand out	Teamwork	Idea		
			Expert D	"Creativity is very important because every company is differently positioned, and different people work together in each organization. Power masters with creative means find ways to overcome their position and create new ideas to penetrate every corner of the market in order to stand out from rivals. Big, revolutionary ideas that fundamentally alter entire sectors come from creativity. As a result, organizations that encourage creativity and collaboration are more likely to generate these value-adding innovations."	Manager	Simplify knowledge			
			Expert E	"Yes, of course, we always need to adapt our buildings to the customer's needs and tastes. You can not always take the same pattern, we always need to reinvent ourselves and the way we sell depending on the audience, we must tailor to our customers."	Customer needs	Reinvent	Individual		
			Expert F	"You have to listen to different customers, and understand their needs, in order to be creative and reach your goal, especially when it comes to sales, and to reach a settlement. You have to take employees in hand, show them that telephone acquisition is very important, and they have to be creative to succeed."	Customer needs	Goals	Hand in hand		
			Expert G	"I think that you pay attention to each customer from the start, you pay attention to each customer with measures with an interesting marketing mix that meshes together. It makes sense to use methods that are tailored to the target group."	Attention	Methods	Target Group		
			Expert H	"Yes, definitely. Creativity plays a very big role, especially in our industry. Every day, every employee encounters new hurdles that can often be overcome with the help of creative ideas through creative work. I also notice how excited my employees are working for us; they are more open, more innovative and get more involved in our work."	Hurdles	Innovation			
				"Yes, definitely. Creativity is very important in our industry, especially because we are a small company. We always need new ideas and approaches to outshine our competitors. Acquisition is very important, especially for us. We have to stand out and present an attractive offer with our special possibilities. Creativity is also often required in the project itself. We rarely have the same situations in our job. We always have to adapt, and that's where creativity is essential."	Idea	Stand out	Attractive	Adaption	
		Do you pay attention to promote the creativity of your employees?	Expert A	"I think that you pay attention to each customer from the start, you pay attention to each customer with measures with an interesting marketing mix that meshes together. It makes sense to use methods that are tailored to the target group."	Room for Creativity	Management of Employees	Goals	Individual time management	
			Expert B	"Rather no."					
				"You can't make everyone work creatively. But as a leader, I give freedom to my employees. I encourage them to be creative. I have to create a space for them so that they can use their own ideas to solve problems. I have to have a good communication and problem-solving skills like idea generation and employees with a divergent point of view."	Individual time management	Freedom	Communication	Problem-Solving	
			Expert C	"Yes, before changing the text for a new audience, translators need to be able to dig deeply into the material they are working on and consider all potential subtleties. Speaking multiple languages increases one's chances of being creative. Knowing more makes you want to explore, create, and find solutions more. We are very careful that our team has access to all the knowledge they need to be creative, both in and outside of work hours. We encourage our employees to share their ideas and thoughts with us. We evaluate the solutions they choose for problems that have already been addressed by other employees, as well as suggestions for improvement, e.g. for reporting problems and responding to them."	Knowledge	Improvement	Evaluation of solution		
			Expert E	"Yes, in any case. It's very important because they are the ones who sell the houses."	Weekly Calls				
			Expert F	"Yes, sometimes, but only when needed. Creativity makes every employee more innovative and promotes innovative creativity. New methods, approaches and solutions are essential to survive in the market and to outperform other competitors. Therefore, I try to use creative techniques as much as possible in order to promote the willingness and motivation to work creatively. In today's world, HR plays such a big and important role in the labor market because there are many attractive employers, and you need to retain the best talent. HR has to place with innovative and creative ideas that present you better than other companies."	Promote Innovation	Outperform Competitors	Motivation	Willingness	
			Expert H	"Yes, I am trying to foster continuously, but it is very difficult to always do so in the right situation. All employees are different and different people need different management styles. If I take transformational leadership style as a direction, I have often been shown that it works best."	Leadership				
			Expert I						

Number	Topic	Question	Expert	Code I	Code II	Code III	Code IV	Code V
#2	Practices promoting individual creativity	How do you foster creativity? Which practices?	<p>Expert A</p> <p>“I’ve always already told you, it is important for me that the employees that use freedom to organize his work himself. I know from past experience that this way of working works better, and the results are better, and the employee is also more satisfied. Because when an employee is more satisfied, his work is also better. This freedom avoids possible stress that causes them to hurry and not think straight or right. In addition to the freedom, it is also important for me that we meet daily in the team and exchange all updates. Everyone presents their current status and new ideas here. Every employee has the right to present his or her ideas. These ideas are then discussed, evaluated and, if we always leave room for maneuver, it doesn’t matter how the colleagues achieve their goals, the main thing is that they get it done. Someone can be creative when the leader doesn’t use any pressure or try to discourage the worker. For example, a working student in physics and mathematics who loves programming will only get creative while performing tasks relating to IT, and automated processes. Encouraging him or her to work creatively will pay off.”</p> <p>Expert B</p> <p>“... organizations in giving our employees jobs purpose. Because the business will succeed when our organizations help people.” “Unleash their human potential”. We need to foster a culture of trust, which calls for workers to arrive at work with the belief that their organization is well-run, that things are fair, and that their managers will pay attention to them and give them space. Additionally, they will act if something is incorrect because there is always room for improvement. And doing so entails choosing a course. People want to participate in our businesses when we infuse them with significance and value. They identify with our businesses because they see themselves there, which motivates them to participate, be active, and work hard.”</p> <p>Expert C</p> <p>“Occasionally, workers may feel unable to proceed with a transition task. They might be finding it difficult to express the facts as succinctly as the original text, or they might think they can’t strike the correct tone or find the right words. Through working groups, we share our different approaches and design work processes in a new and independent way. We always give free space to our employees but also I try to be always available to help brainstorm and mind mapping for a difficult translation text.”</p> <p>Expert D</p> <p>“We foster creativeness through weekly calls, and updates assessments, to be able to see the progress of each employee, their learning curve and own development in the business. We value also coaching from more skilled employees, and improve creativity through story-telling workshops.”</p> <p>Expert E</p> <p>“There is also a lot of creativity during our work tasks, workshops, leisure activities, sales training, weekly video conferences with training, and feedback for both parties. The most creative ideas come from less stressful situations, this is why we value activities that reduce the pressure. The most important is the freedom you give to your team, in exchange they have to bring you sales, otherwise they have to work longer in the workshops.”</p> <p>Expert F</p> <p>“Give freedom that employees can participate in training or workshops. There is a lot of offer and many opportunities in our company. There is also a strong emphasis on open communication. With the help of weekly meetings or daily four fix. Our managers can easily encourage creativity. In our industry it is very important and therefore for some it is a daily task.”</p> <p>Expert G</p> <p>“Many people find it difficult to promote creativity in their company, but you just need to know the basic building blocks and how human thinking works. At Accenture, we use many different ways, such as having daily meetings where each employee can freely present their ideas and thoughts. This encourages every member of the team to think and help shape the ideas. Feedback plays a big role here. Furthermore, we have many opportunities with training and solutions demos to support our employees.”</p> <p>Expert H</p> <p>“Creativity promotes many current creativity techniques, because everyone in our company grows and improves from feedback. Otherwise, I often give out tasks with a creative background. For example, we have a meeting with the whole company where one employee has to collect a weekly trend analysis and the resulting ideas for our company. Otherwise, I often assign tasks with a creative background. For example, we have a meeting with the whole company where an employee has to create a trend analysis and present the resulting ideas to the company. Here you notice that all employees are inspired and contribute many innovative and creative possibilities.”</p>	<p>Indiv. d. d. l. time management</p> <p>Maneuver</p> <p>Unleash human potential</p> <p>Trust</p> <p>Working groups</p> <p>Share approaches</p> <p>Updates</p> <p>Weekly calls</p> <p>Workshops</p> <p>Freedom</p> <p>Human thinking</p> <p>Creativity techniques</p>	<p>Satisfaction</p> <p>Achieve goals</p> <p>Trust</p> <p>Working groups</p> <p>Updates</p> <p>Workshops</p> <p>Freedom</p> <p>Opportunities</p> <p>Daily meetings</p> <p>Daily meetings</p>	<p>Daily meetings</p> <p>Encouraging Creativity</p> <p>Pay attention</p> <p>Independent</p> <p>Development</p> <p>Weekly meetings</p> <p>Weekly meetings</p> <p>Feedback</p> <p>Inspiration</p>	<p>Right to speak freely</p> <p>Brainstorm</p> <p>Workshops</p> <p>Freedom</p> <p>Daily meetings</p> <p>Training</p>	<p>End of V</p> <p>Mind mapping</p>

Number	Topic	Question	Expert	Quotes	Code I	Code II	Code III	Code IV	Code V
43	Results of promoting individual creativity	How do you know your creativity practices are working?	Expert A Expert B Expert C Expert D Expert E Expert F Expert G Expert H Expert I	<p>It's very clear in our industry by increasing the resources that the satisfaction of the customers. If the tasks are done well and the creative work is needed, it's a sign that the creative promotion has worked. Our company places a strong emphasis on communication with other teams. I consult with other team leads from time to time to see how they are doing creatively. Other areas we overlap on are the process. This is also the area of the sector that we are most interested in.</p> <p>This working student created completely automated fair fix files thanks to the room for creativity we left him and made work easier in stressful times. This is a worthwhile example that working creatively helped him to learn by himself. VBA and found us a sustaining solution for the future. I didn't see such an improvement in automation in other teams."</p> <p>The first metric that shows that measuring the human potential of employees works is people engagement and a low turnover. We share in a transparent way the feedback from customers, in order to learn from our mistakes and work becomes easier, and more automated, which is beneficial for everyone. Overall, when the number of self-esteem of our employees is well valued because they know that they are committed to share their methods and ideas. Most of the time, when we succeed to implement a creative environment where employees are curious, collaborative and share feedback, it is a good sign that they are being creative. Naturally, this satisfaction of our international customer of the final translation is always a good metric to take into account.</p> <p>"We know that an employee has been creative enough when he was able to conclude a deal and sign a contract with a customer, sometimes we receive reference letters from satisfied customers. That's for us the proof of a hard work and perfectly tailored to the customer's needs."</p> <p>The turnover has doubled since the company was founded, we have results, and good feedback, and that's very clear. When the number of self-esteem of our employees is well valued because they know that they are committed to share their methods and ideas, we can force ourselves to innovate."</p> <p>"Clearly through results and feedback discussions. We often also look at whether it is really well received by the workers and how we can also improve ourselves."</p> <p>"Clearly through the results that are achieved. When the result is positive, I realize that this kind of support or freedom has worked out."</p> <p>"Clearly, from the results I'm seeing."</p>	<p>Satisfaction</p> <p>Daily meetings</p> <p>Unleash human potential</p> <p>Employees is valued</p> <p>Customer needs</p> <p>Feedback</p> <p>Feedback</p>	<p>Creative promotion</p> <p>Advantages for entire company</p> <p>Feedback</p> <p>Curiosity</p> <p>Creativity deadline</p> <p>Discussions</p>	<p>Communication</p> <p>Sustainable</p> <p>Automated</p> <p>Collaborative</p> <p>Improvement</p>		

Number	Topic	Question	Expert	Code I	Code II	Code III	Code IV	Code V
#5	Challenges in fostering creativity remotely	What are the challenges in fostering creativity online?	Expert A	Stimulation	Virtual distance	Results	Closeness	
			Expert B	Pressure	Distance	Overburdened	New technology	
			Expert C	Communication	Gain in consensual level	Participate		
			Expert D	Knowledge	Communication with colleagues			
			Expert E	Internet Connection	Express opinion	Confidence	Tutorials	
			Expert F	Perception				
			Expert G	Clear head	Control			
			Expert H	Physical closeness	Group rooms			
			Expert I	Distance	Freedom	Camera		

Number	Topic	Question	Expert	Quote	Code I	Code II	Code III	Code IV	Code V	
#6	Communications	How do you counter these problems, as a leader?	Expert A	<p>What is every important at the moment is communication within the teams. We organize virtual office breaks to stay in constant contact with all employees. The contact during these times is simply one of the most important factors to be able to work creatively. We also have daily virtual meetings at 11:30 a.m. to share ideas, develop new strategies and concepts and support each other. When it comes to creative work, we use every opportunity to promote it and it works quite well. As mentioned before, the freedom of the tasks to be accomplished plays a major role in terms of creativity. It is simply important to leave room for the employees.</p> <p>"Yes, it is difficult to assess the differences, but I think that the opportunity to choose your own hours and work from anywhere, as well as not having to commute, are the main advantages of remote employment. The biggest challenges of remote work, however, are being able to disengage, having trouble establishing a routine and structure. We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p> <p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p> <p>"We can overcome those challenges through calls guideline that employees have to follow which allow us to set clearly the objectives and explain the agenda. We always need to check for good internet connection and respond to individual problems. We have available creative online tools to increase the creative thinking of our team. This help to go to the people, ask for feedback, and listen to their point of views. We need to ensure that everyone has a good workplace, even remotely."</p> <p>"We meet as often as possible and do activities together, have lunch, in order to build emotional bonds. However, we always leave the employee their private space, to go on vacation or leave earlier on Fridays, and find ways to answer people's individual needs. From my experience, this is how remote work goes very well. It is important, too to have a very clear and simple participation in work during our meetings, as a summary for the team meeting from the workshops. This often encourages the employees to always listen 100% and understand what the workshops are about. We also often have creativity workshops that you can participate in on a monthly basis. Otherwise, as mentioned earlier, we have many team meetings where each employee has a say. Everyone can express themselves creatively and all team members can reflect on the content, which also encourages creative thinking..."</p> <p>"During the corona pandemic, there has been a major shift in thinking about creativity measures. We were able to work around some of the problems with daily meetings and feedback sessions. We try to get in touch with our colleagues as often as possible to create a clear transparency. I find online tools and other virtual brainstorming tools very helpful. New tools and ideas come on the market every day and you should always be up to date..."</p> <p>"We try to be in contact as possible because transparent communication is one of the most important factors, not only to promote creativity. We use many different online tools to foster our creativity. For example, we use Jira to visualize different Kanban boards and to brainstorm and work through new activities. Miro is also a very important tool for brainstorming activities. Besides online tools, we often have explicit creativity workshops where we are briefed by other parties. We then bring this new</p>	Virtual office breaks	Daily meetings	Promotion	Communication	Interpersonal communication	
			Expert B	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Individual time management	Collaboration	Communication			
			Expert C	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Tools	Interactions	Regulations			
			Expert D	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Online meetings	Contribution	Mind mapping	Brainstorm	Good workplace remote	
			Expert E	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Guidelines	Internet connection	Individual problems	Online tools		
			Expert F	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Activities in Team	Emotional bond	Individual needs	Break the routine		
			Expert G	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Workshops	Engage with employee	Express themselves			
			Expert H	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Daily meetings	Feedback	Transparency	Online tools	Up to date	
			Expert I	<p>"We are trying to go back more often to the office, but we still have every 4 weeks a 2h online meeting where everyone reports about his current work that everyone is up to date. We also have more team meetings, to promote creativity: 2 times per week, the team meet to contribute to creativity to everyone's tasks. We promote teamwork, all topics are discussed, such as new work processes or new software implemented, brainstorming, mind mapping..."</p>	Contact	Transparency	Online tools	Workshops	Expertise	

Number	Topic	Question	Expert	Quotes	Code I	Code II	Code III	Code IV	Code V
#7	Recommendations	What tips would you give to other leaders to foster creativity remotely?	Expert A Expert B Expert C Expert D Expert E Expert F Expert G Expert H Expert I	<p>"In general, I think it's very important to have a lot of contact with your employees, colleagues and superiors. Every employee should have the freedom to share experiences and knowledge within the company. I also strongly believe that every employee should have the opportunity to express their opinion not only work related. It is important for team members to attend conferences or give presentations to each other. I create them in the morning. The idea is to make samples that are appreciated."</p> <p>"because we leave room for maneuver. The main goal is to reach good results."</p> <p>"In any case, I advise to have a four fix meeting where you should try to stimulate creative thinking, set goals, without trying to accomplish concrete tasks. We must reach our goal by your own efforts, in the office preferably. Leadership has to set clear objectives, in order to create a good collaboration within the team and improve our and within the team. I find very important, to give and receive feedback, responding to needs, create brainstorming sessions, applying and promoting new technologies."</p> <p>"I would advise to use online tools and give as much feedback as possible, this is important. They should communicate on global updates concerning major changes within the company. Leaders need to trust their employees and leave them work independently and give freedom to reach their goals."</p> <p>"I would advise leaders to always keep up with the current trends, by motivating employees, being up to date, building business, politics or emotional connections but always maintaining enough distance, a healthy distance, to be seen as a respectful person who triggers creativity, by asking "so what are your ideas, what do you think?"</p> <p>"I find ways to ensure that employees take others seriously and work on themselves, but perhaps also with positive rewards/incentives that you can apply and then happens... make sure that one also learned something in the workshop, test knowledge, ask him so to speak with nerves that he pays attention and show open communication."</p> <p>"My tip are clear communication within the team and across the board. Try to motivate your employees so that they are also very motivated to find new ideas on their own. Feedback is an important factor. And of course, all the new important tools you can use to overcome the online hurdle. For example, we are currently using a new collaborative whiteboard tool which works very well in terms of creating and promoting work."</p> <p>leadership. Be a role model and take all your colleagues' suggestions seriously and try to put yourself in their shoes. In today's world, it is important to be an agile and purposeful company, and creativity simply plays a big role here. Adjustments and changes are hurdles of every worker that can often be successfully and purposefully</p>	Contact Communication Daily meetings Feedback Virtual tools Goals Curiosity Communication	Freedom Own efforts Individual needs Communication Distance Positive rewards Feedback Take seriously	Opportunities Clear objectives Daily meetings Respectful Workshops Online tools Agile	Workshops New technology Internet Workshops Employee needs	

Number	Topic	Question	Expert	Code I	Code II	Code III	Code IV	Code V
	Future of fostering creativity by transformational leaders #8	With the Covid-19 pandemic, there was or is a rapid increase in remote work and therefore the leader has to adapt to a new environment. How do you see the future as a leader with regard to fostering creativity remotely?	<p>Expert A: "Creativity needs free space, and remote work offers a lot of free space and opportunities, such as new software tools, platform or even metaverse access."</p> <p>Expert B: "Working remotely will continue, especially thanks to the hybrid model agreement. Leaders should expand brainstorming tools, like AI. However, the possibility of unplanned interactions is one advantage of working together in person. It is essential to encourage hybrid model and avoid full remote position."</p> <p>Expert C: "I already working well. As the days of home office allowed increased now from 8 to 10 days per month, I believe that this home office is not out of hand, even if some colleagues no longer see each other. We need to plan the presence days and make sure everyone is engaged in the team work. I'd like if all could be in the office on specific day, every 2 weeks for example. It is important to get together while promoting a flexible working environment. It is important to be sure that everyone has their own space and have a decent office. Moreover, softwares will be implemented and more used in the future, there will be more investment in tools to work better online."</p> <p>Expert D: "There are more and more tools to help you, leader have to adapt, creativity is becoming more and more important to survive in the working world especially in the real estate sector, I am trying to deal with more and more creativity myself, I see myself in other industries how essential creativity is becoming, I am curious how the labor market is developing. As every field, the real estate industry also requires creativity. Which that the need to the speed of being able to adapt to the sector from working remotely."</p> <p>Expert E: "people do not feel the need to be in an office. For our business market, online work isn't the best option, we work with a B2C model where we have to be close to the customer and the offices cannot stay empty. In other branches, remote work is definitely possible, especially for online work jobs, like software, where leaders must always adapt to new environments and control the new technologies. Creativity can arise from changing the media and engaging different thought processes (Mira software)."</p> <p>Expert F: "Online offers, software offer increases, direction VR, Metaverse, sitting together in the office although home office, stimulate advantages"</p> <p>Expert G: "The future of working models will clearly remain a hybrid model. It is important to adapt your company and to keep up with the trend. I believe that AI, VR and other new possibilities will drastically change the sector here as well. I am very excited about what will happen in the near future and I am convinced that many work steps will become the norm, whether they take place online or offline. There will soon no longer be any boundaries between working in the office and working remotely."</p> <p>Expert H: "that remote work will be a constant companion and will stay with us forever. Remote work has become the norm. There are many hurdles to overcome but I believe with the future of tools and new technologies this can be easily overcome. I am excited about the development of creativity techniques in the near future and which ones will be consolidated in the company. It is important to always stay up to date in order to</p>	Virtual tools Freedom Virtual tools Engagement Virtual tools	Timing Tools Artificial intelligence Promote flexible work Software	Motivation Metaverse Hardware		
				Individual needs Virtual tools Trends Remotework is norm	Software VR Artificial intelligence New technologies	Adapt to new environment Metaverse VR Virtual tools	Stimulate advantages Creative techniques	

Appendix K: Expert interview: Code Tree

Codes	Themes	Topics
New Perspective	Inspirational Motivation	Transformational Leadership
Stand out		
Maneuver		
Goals		
Adaption		
Opportunities		
Inspiration		
Outside the box		
Promotion		
Guidelines		
Break the routine		
Clear objectives		
Trends		
Innovation	Intellectual Stimulation	
Idea		
Simplyfy knowledge		
Reinvent		
Improvement		
Evaluation of solution		
Promote Innovation		
Encouraging Creativity		
Creative techniques		
Individual	Individualized Consideration	
Willingness		
Leadership		
Achieve goals		
Trust		
Pay attention		
Updates		
Feedback		
Curiosity		
Collaborative		
Discussions		
Social interaction		
Relationship		
Express opinion		
Interactions		
Contribution		
Engage with employee		
Respectful		
Positive rewards		
Employee needs		
Development	Idealized Influence	
Knowledge		
Unleash human potential		
Improvement		
Analysis		
Expertise		
Interact		

Teamwork	Individual factors/motivation	Individual creativity
Communication		
Motivation		
Satisfaction		
Development		
Employee is valued		
Capabilities		
Feeling of belonging		
Harmony		
Own initiatives		
Clear head		
Collaboration		
Interpersonal communication		
Individual problems		
Emotional bond		
Individual needs		
Express themselves		
Contact		
Own efforts		
Take seriously		
Individual time management	Job factors	
Freedom		
Problem-Solving		
Sustainable		
Creating deadline		
Regulations		
Transparency		
Curiosity		
Timing		
Structured		
Hand in hand		
Attention		
Room for Creativity		
Right to speak freely		
Independent		
Human thinking		
Satisfaction		
Creative promotion		
Communication		
Emotions		
Confidence		
Perception		
Transparency		

Customer needs	Virtual management	Virtual workspace
Stand out		
Attractive		
Management of Employee		
Outperform Competitors		
Share approaches		
Working groups		
Advantages for entire company		
Automated		
Body language		
Online work		
Direct contact		
Team atmosphere		
Participate		
Control		
Good workplace remote		
Up to date		
Agile		
Engagement		
Promote flexible work		
Adapt to new environment		
Stimulate advantages		
Trends		
Remotework is norm		
Live-Demos	Resources	
Methods		
Weekly Calls		
Daily meetings		
Brainstorm		
Mind mapping		
Workshops		
Trainings		
Creativity techniques		
Equipment		
Hardware		
Open space office		
New technology		
Internet Connection		
Tutorials		
Group rooms		
Camera		
Virtual coffee breaks		
Tools		
Activities in Team		
Metaverse		
Artificial intelligence		
Software		
VR		
Target Group	Virtual Challenges	
Hurdles		
Virtual distance		
Face to face		
Physical closeness		
Distance		
Human closeness		
Stimulation		
Results		
Overburdened		
Presence		
Gap in conceptual level		

Appendix L: Survey: Questions

Part 1

To what extent is the leader transformational?

	(1) Not at all	(2) Once in a while	(3) Sometimes	(4) Fairly often	(5) Frequently, if not always	Miscellaneous or Comments
My Leader or Manager...						
Idealized Influence: Influence through role model function						
II.1	Conveys pride, respect and gives confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II.2	Puts own interests aside for the group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II.3	Has ethical and moral principles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II.4	Demands and encourages the highest level of commitment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
II.5	Communicates values and goals convincingly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Individual Consideration: Takes individual particularities into account						
IC.1	Takes time for employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IC.2	Promotes individual development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IC.3	Treats each employee as an individual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IC.4	Is a coach and provides guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspirational Motivation: Inspiration and motivation						
IM.1	Looks optimistically to the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.2	Radiates enthusiasm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.3	Offers attractive visions for the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.4	Conveys confidence and trust that goals will be achieved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intellectual Stimulation						

IS.1	Promotes intelligent, rational, and carefully considered problem solving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IS.2	Constantly questions "things"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IS.3	Makes innovative suggestions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IS.4	Reexamines critical assumptions to question whether they are appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 2

Due to the Covid 19 pandemic beginning in 2020, the world of work has been drastically changed and almost all areas of business have been turned upside down. Many sectors have had to accept a shift to home office and therefore many concepts and possibilities have been transformed.

To what extent do you/ or did you work from home office? Where 0% is completely onsite and 100% is completely home office.

WM	0%.....50%.....100%
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Part 3

Level of the Individual Creativity

	(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree	Miscellaneous or Comments
Intrinsic Motivation Items						
IM.1	I enjoy finding solutions to complex problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.2	I enjoy coming up with new ideas for products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.3	I enjoy engaging in analytical thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.4	I enjoy creating new procedures for work tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IM.5	I enjoy improving existing processes or products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity Items						
CI.1	I demonstrate originality in my work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.2	I take risks in terms of producing new ideas in doing job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.3	I find new uses for existing methods or equipment's	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.4	I solve problems that had caused other difficulty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.5	I try out new ideas and approached to problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.6	I identify opportunities for new products/processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.7	I generate novel, but operable work-related ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.8	I serve as a good role model for creativity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CI.9	I generate ideas revolutionary to our field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 4

EXP.1 In the virtual Environment: Which of these possible options can be linked to your work?

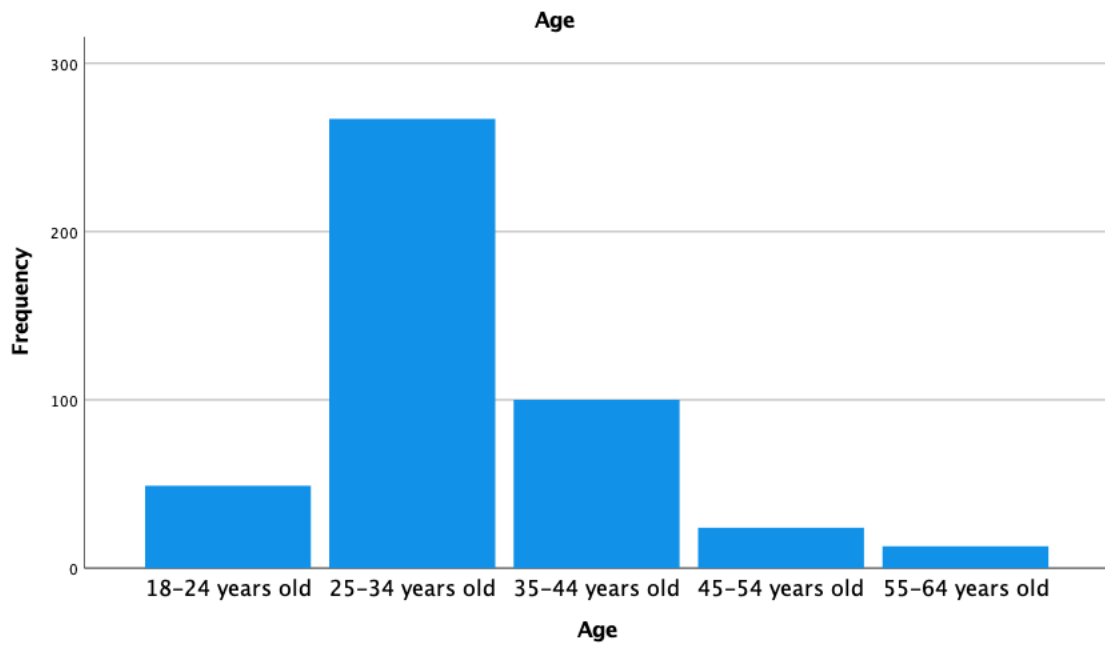
EX.1	Daily or weekly online meetings	<input type="checkbox"/>
EX.2	Online feedback sessions	<input type="checkbox"/>
EX.3	Usage of brainstorming tools	<input type="checkbox"/>
EX.4	Online events after work	<input type="checkbox"/>
EX.5	Offer of online training opportunities	<input type="checkbox"/>
EX.6	Usage of collaborative Whiteboards	<input type="checkbox"/>

EXP.2 In the virtual Environment: Which of these possible options can be linked to your work?

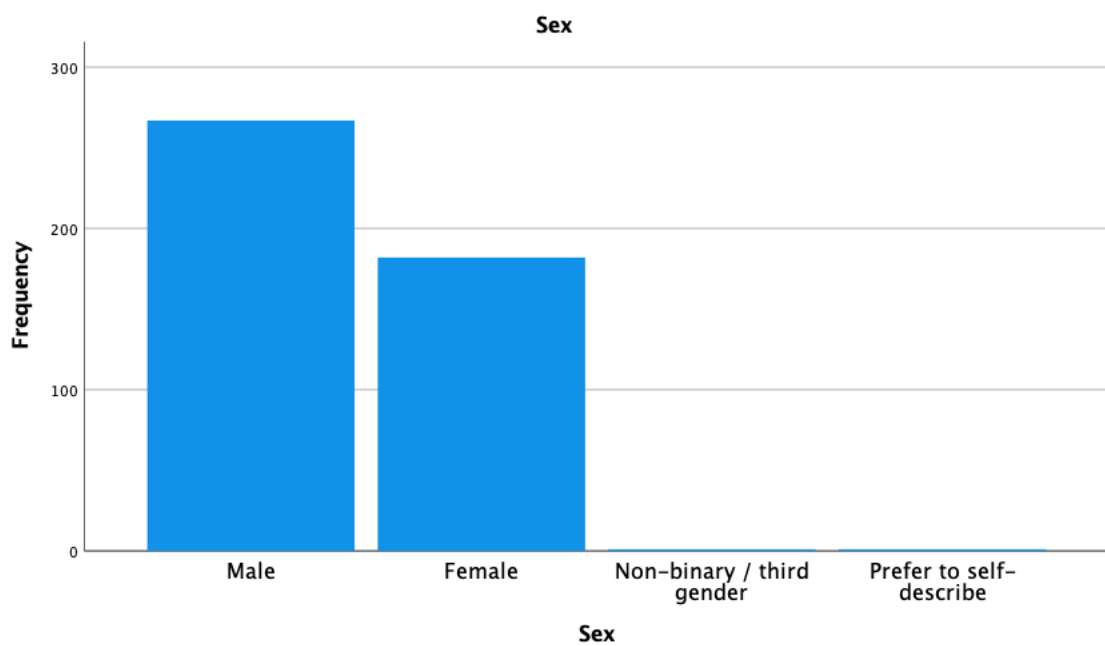
EX.7	I have the freedom to manage myself to achieve the desired goal	<input type="checkbox"/>
EX.8	My personal needs are considered	<input type="checkbox"/>
EX.9	I can contribute to the company in an innovative and unrestricted way	<input type="checkbox"/>
EX.10	Positive changes are recognized or even rewarded	<input type="checkbox"/>
EX.11	Strong communication within the team	<input type="checkbox"/>
EX.12	We explore and test new methods and tools	<input type="checkbox"/>

Appendix M: Survey Demographic: Age, Sex, Employment Status, Country of Residence

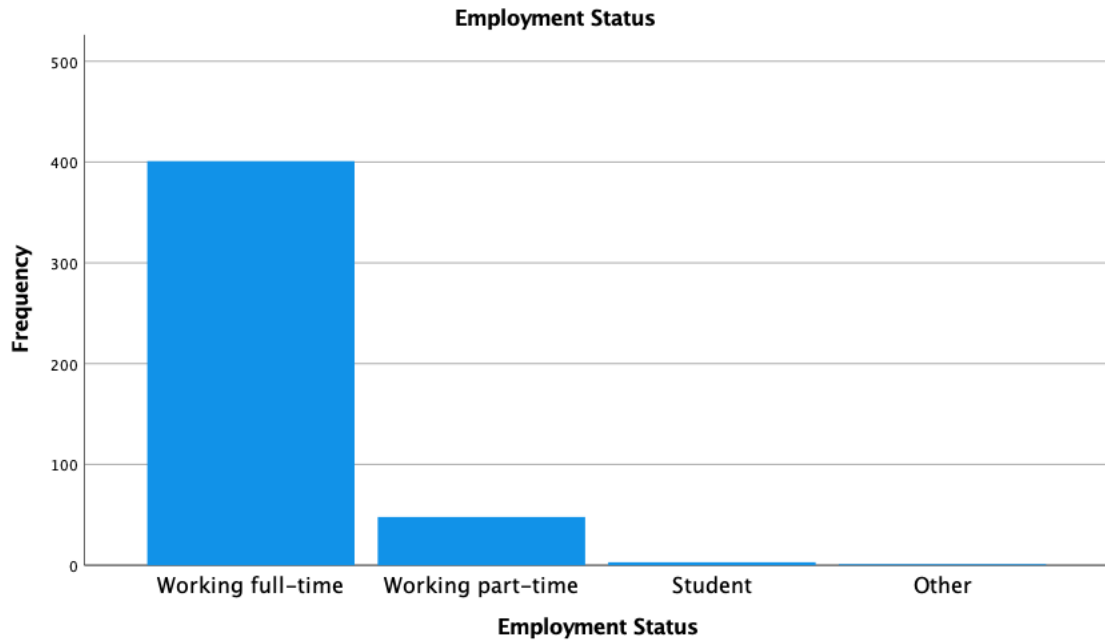
Survey Demographic: Age



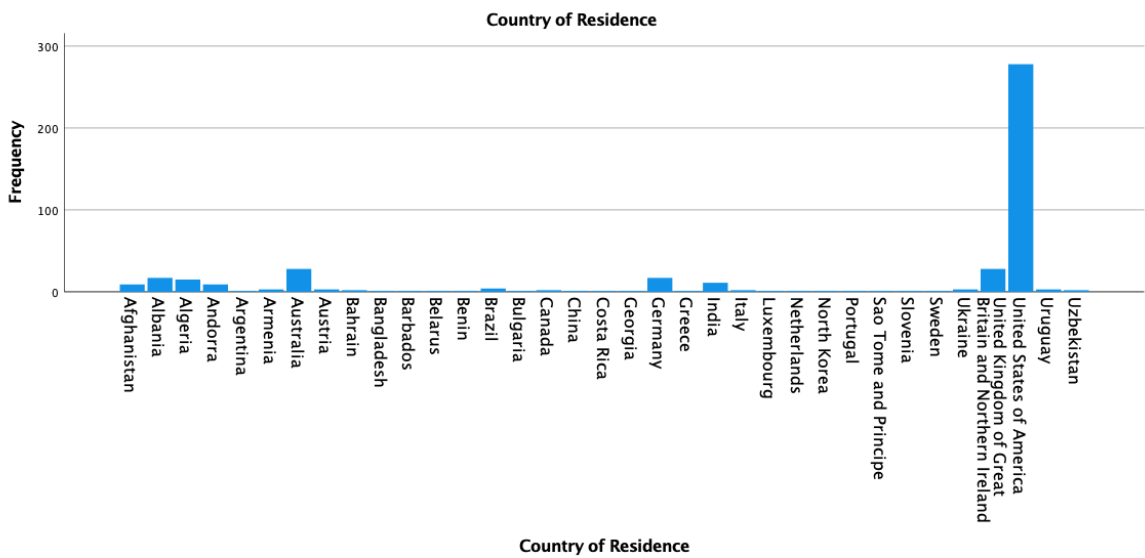
Survey Demographic: Sex



Survey Demographic: Employment Status



Survey Demographic: Country of Residence



Appendix N: Survey: Correlation: Spearman's rho

Correlations

		Trans.Index	Crea.Index	Exp.Index	HO_1	
Spearman's rho	Trans.Index	Correlation Coefficient	1,000	,662**	,196**	-,011
		Sig. (2-tailed)	.	<,001	<,001	,808
		N	453	453	453	453
	Crea.Index	Correlation Coefficient	,662**	1,000	,232**	,040
		Sig. (2-tailed)	<,001	.	<,001	,401
		N	453	453	453	453
	Exp.Index	Correlation Coefficient	,196**	,232**	1,000	,101*
		Sig. (2-tailed)	<,001	<,001	.	,031
		N	453	453	453	453
	HO_1	Correlation Coefficient	-,011	,040	,101*	1,000
		Sig. (2-tailed)	,808	,401	,031	.
		N	453	453	453	453

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix O: Survey: Regression: Modell Summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Durbin-Watson	
						F Change	df1	df2		Sig. F Change
1	,661 ^a	,436	,433	,42608	,436	115,897	3	449	<,001	1,359

a. Predictors: (Constant), HO_1, Exp.Index, Trans.Index

b. Dependent Variable: Crea.Index

Appendix P: Survey: Multiple Regression Test: Anova

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63,122	3	21,041	115,897	<,001 ^b
	Residual	81,514	449	,182		
	Total	144,636	452			

a. Dependent Variable: Crea.Index

b. Predictors: (Constant), HO_1, Exp.Index, Trans.Index

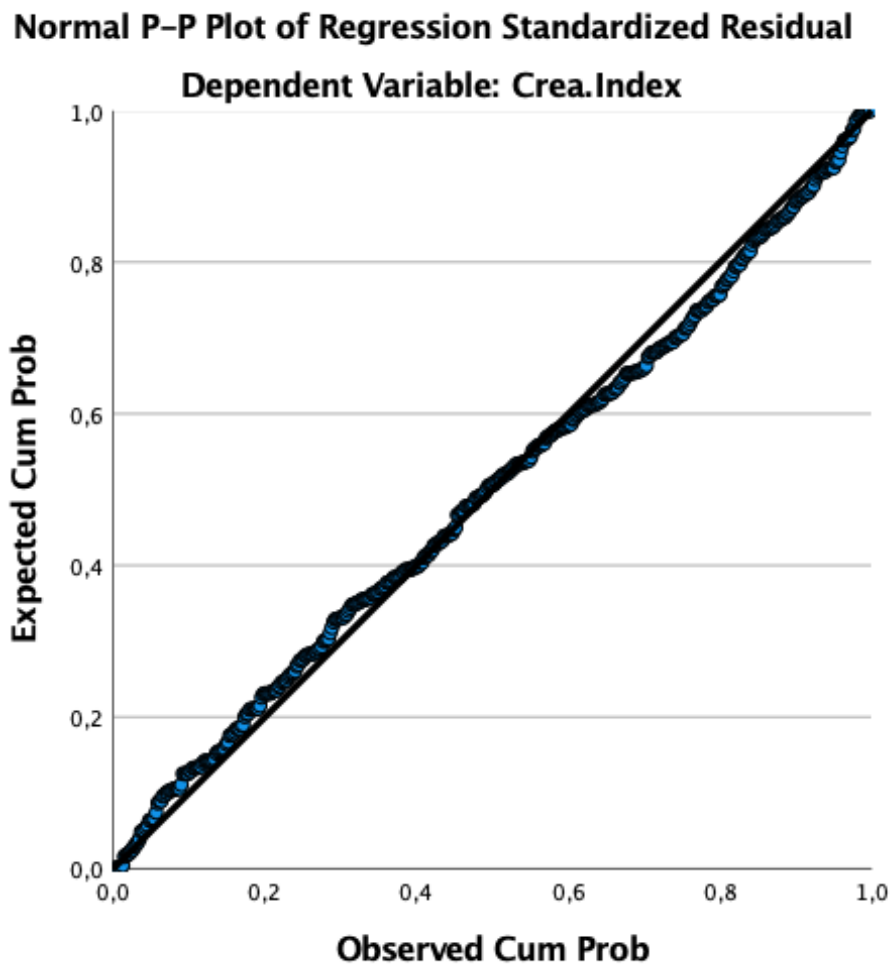
Appendix Q: Survey: Multiple Regression Test: Coefficients

Coefficients^a

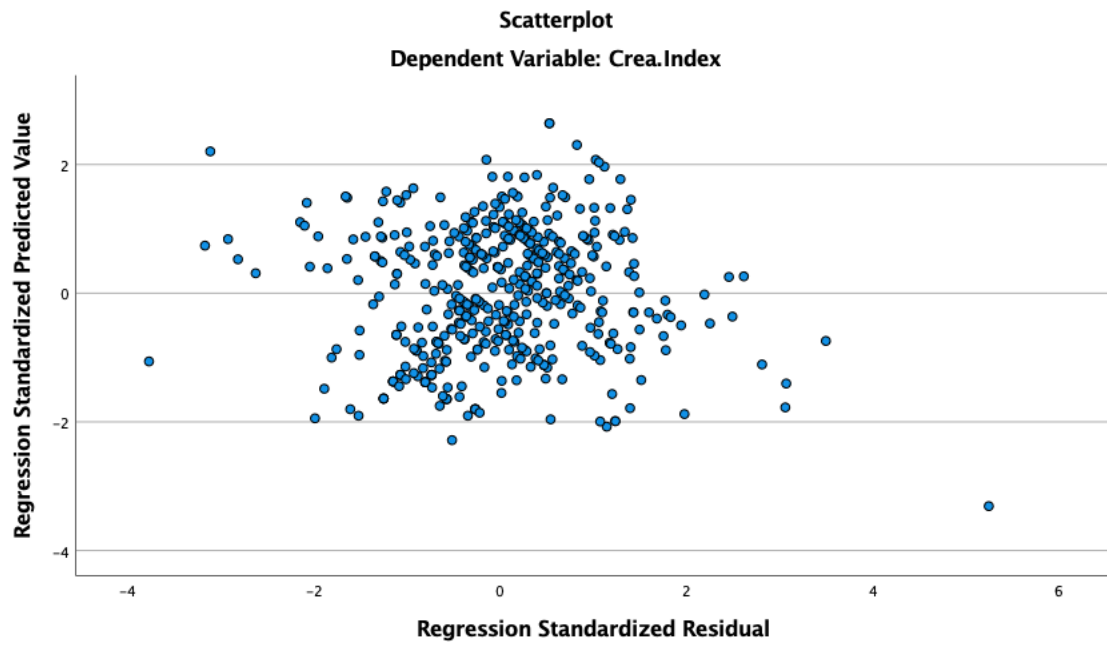
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1,424	,140		10,186	<,001	1,149	1,698		
	Trans.Index	,569	,034	,613	16,765	<,001	,503	,636	,940	1,064
	Exp.Index	,038	,009	,148	4,053	<,001	,019	,056	,944	1,059
	HO_1	,001	,001	,039	1,107	,269	-,001	,002	,989	1,011

a. Dependent Variable: Crea.Index

Appendix R: Survey: Multiple Regression Test: Quantile-Quantile-Plot



Appendix S: Survey: Multiple Regression Test: Scatter Plot



Statutory Declaration

I declare that I have authored this thesis independently, that I have not used other than the declared sources/resources, and that I have explicitly marked all material that has been quoted either literally or by content from the used sources.

30. September 2022



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Date

Signature