

# **Leadership trainings regarding the awareness of psychological safety:**

And their effect on teams and the work climate in an organization

Master's Thesis

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## Abstract

Although workplace climate has been already extensively studied, the research has not led to firm conclusions regarding leadership trainings referring to the awareness of psychological safety in a company and its influence on existing teams and the general work climate. The author used the already existing model of Carr, Schmidt, Ford, & DeShon (2003) and adjusted it with psychological safety as 4<sup>th</sup> climate item to develop hypotheses which can also be seen as a path analytic model. The model posited that climate affects individual level outcomes through its impact on cognitive and affective states. Therefore, the author wants to show the correlation between the 4 higher order facets of climate affect the individual levels of job performance, psychological well-being and withdrawal through their impact on organizational commitment and job satisfaction (Carr, Schmidt, Ford, & DeShon, 2003).

## Kurzreferat

Obwohl das Klima am Arbeitsplatz bereits ausgiebig untersucht worden ist, hat die Forschung nicht zu eindeutigen Schlussfolgerungen in Bezug auf Führungstrainings geführt, die sich auf das Bewusstsein für psychologische Sicherheit in einem Unternehmen und dessen Einfluss auf bestehende Teams und das allgemeine Arbeitsklima beziehen. Der Autor nutzte das bereits bestehende Modell von Carr, Schmidt, Ford, & DeShon (2003) und passte es mit psychologischer Sicherheit als 4. Das Modell geht davon aus, dass das Klima die Ergebnisse auf individueller Ebene durch seinen Einfluss auf kognitive und affektive Zustände beeinflusst. Daher möchte der Autor die Korrelation zwischen den vier übergeordneten Facetten des Klimas aufzeigen, die sich auf die individuellen Ebenen der Arbeitsleistung, des psychologischen Wohlbefindens und des Rückzugs aus dem Arbeitsleben auswirken, und zwar durch ihren Einfluss auf das organisatorische Engagement und die Arbeitsplatzsicherheit (Carr, Schmidt, Ford, & DeShon, 2003).

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## Introduction

The first chapter of this research first provides clarity and an overview of the why, what, and how of this empirical work. First, the importance of the research topic is described to understand why studying the relationship between psychological safety in the workplace and its impact on existing teams and overall work climate is essential. In further steps, the research gap and the research question based on it are presented. Subsequently, the structure of this master thesis will be described in more detail.

### 1.1 Introduction and Importance of the Topic

Although workplace climate has been studied several times and extensively in various research, the resulting outcomes and findings have not led to any clear conclusions regarding the influence of leadership trainings regarding the awareness of psychological safety in a company and its influence on existing teams and the general atmosphere. In many ways, the economy has faced dramatical changes in the last years. Rising dynamism, new and complex technologies, digitalization, globalization, shortage in resources, increase of strong competition and therefore also shortage of professionals and knowledge. Because of that, not only hiring the most fitting employees is important but also keeping the already existing workforce is key for success and competitiveness. Due to increasing shortage in professionals, companies are forced to hire globally instead of only regionally or even outsource certain departments to other countries to minimize costs. As a result, the diversity of the workforce is increasing and it's important as a manager to focus on the aspect of shared values and a positive work climate while working with different personalities and cultures. On that account, increasing job satisfaction and guaranteeing an overall positive work climate is necessary to keep current employees satisfied which will increase the chance that those will develop a certain engagement to their employer and therefore don't change their job. This also means creating a work climate where employees are staying motivated and where they have the feeling that it's safe enough for interpersonal risk taking and long-term learning. Hoff (2016) defines interpersonal risk taking as confronting differences with others in ways which lead to learning and change which, therefore, can also support a long-lasting relationship between employer and employee. However, it must also be understood that interpersonal risk-taking only exists if the work climate and acceptance within the team exists. These, in turn, are aspects that are reflected in psychological safety. The sociologist, Erving Goffman explained in his book of 1957, "*The Presentation of the Self in Everyday Life, that we are constantly seeking to influence others' perception of us by controlling information in social interactions.*" (Goffman, 1973).



Everyone knows the feeling of being in a situation where you don't feel safe and secure enough to share your thoughts or doubts with your coworkers. No one likes to seem incompetent or disruptive to others. Especially not at work. Amy Edmondson defined psychological safety back in 1999 as a work climate in which employees feel safe enough to express ideas, willingly ask for feedback, give accurate feedback, collaborate, take risks, and experiment. In general, this is an option to enhance individual and organizational learning (Edmondson A. , 1999). Nevertheless, a psychologically safe environment does not just appear by not doing nothing. It is mainly created by leaders which are responsible to guide the workforce in the direction the company wants to go and where goals are set. Psychological safety is mostly connected to the way leaders handle errors or innovational ideas an employee brings up or how they give feedback – if they give feedback to their subordinates. That kind of behavior directly influences the team behavior and the interpersonal interaction with other team-members. Therefore, the purpose of this paper is to generate knowledge about how leaders and leadership trainings regarding the awareness of psychological safety can influence existing teams and the overall work climate in a company. For that, the researcher is using the already existing model of the metanalysis of Carr, Schmidt, Ford, & DeShon (2003). Referring to the current research, the researcher will adjust this model with the item of psychological safety to examine the influence of executive leadership trainings referring to the awareness of psychological safety in the daily work live.

## **1.2 Research Gap and Research Question**

Psychological safety is not really well known and developed, neither really anchored in the core values in many organizations (especially in the hotel industry). This is probably also because it can't be seen. Nevertheless, the literature shows that it is still so important and influencing to focus on that aspect (Detert & Edmondson, 2011; Edmondson & Lei, 2014). Also, leadership trainings are not that present in a seasonal business where time is really limited and gaining revenue is most importantly for most managers. Comprehensive findings on the impact of leadership training on mental safety awareness in a hotel have therefore not been widely researched. However, since many regions are generating most of their money with the tourism industry, hiring and holding their employees is very important in times of skills shortage. Hence, creating a work climate where employees feel comfortable and satisfied is also necessary to follow the main goal, of many companies, of building a core team. Due to the fact, that leaders have the biggest influence on a positive and "safe" In terms of improving the work climate, newly implemented leadership training should help address the importance of psychological safety to increase employee

motivation, well-being, and performance within their team. To gather more knowledge regarding this topic, the researcher is using the following research question and sub-questions.

- *How are leadership trainings regarding the awareness of psychological safety effecting existing teams and the work climate in an organization?*

For a deeper insight the research question is split up in 3 sub-questions which should support the author during his research to aim the goal to answer the general research question.

- 1) *How are climatic factors, job satisfaction, organizational commitment and outcomes related with each other?*
- 2) *To what extend are leadership trainings influencing the outcomes of the model?*
- 3) *To what extend does psychological safety influence this causal relationship?*

### **1.3 Thesis Structure**

The primary objective of this thesis is to answer the research question “***How are leadership training regarding the awareness of psychological safety effecting existing teams and the work climate in an organization***” In order to answer this research question, this thesis is divided into six chapters: Introduction, Theoretical Foundations, Methodology, Results, Discussion, and Conclusion.

The introduction (Chapter 1) is intended to provide, initial clarity and understanding of the WHY, WHYT and HOW of this master thesis. The literature section (Chapter 2) aims to generate a comprehensive understanding of the following topics: Psychological Safety, Leadership as part of Psychological Safety, and Work climate in an organization. Here, the results of the literature review are summarized and presented.

In chapter 3 the methodology, with all important steps, is explained and described. described. In a broader sense, the research model is summarized, and the choice of the quantitative research approach is justified and presented.

research approach is justified and presented. Additionally, the measures for each item used are explained and evaluated, before describing the data analysis procedure. Furthermore, the necessary hypotheses for this research study are developed and presented.

In the results section, chapter 4, the data collected from the 3 rounds of questionnaires and the resulting results of the

calculated empirical analyses are presented. In the discussion section of this master thesis, the results of the methods part are evaluated and interpreted in relation to previous research

and the developed research question is answered. Chapter 6 refers to the conclusion of this thesis and summarizes the contents of this empirical work. Also possible limitations of this thesis are pointed out, implications for research and practice are given and possible directions for future research projects.

## **2. Theoretical Foundation**

The following chapter summarizes facts out of the literature to underline the current research and is giving an overall and deeper overview regarding the general theme and already existing literature on the topic of leadership and psychological safety and their influence on the general organizational- and work climate. Since the researcher, as well as the literature, sees psychological safety as one of the most important issues in a company and for its employees, it is first necessary to get an overview and understanding of what psychological safety means and how it affects a workplace and its employees.

### **2.1 Psychological Safety**

A constant feeling of insecurity and interpersonal risk exhaust and frighten people nowadays very much. A proven antidote to reduce insecurity is to build trust and interpersonal safety. Goller & Laufer (2018) demonstrated in their book, that uncertainty in organizations is better managed in a climate of fairness. An atmosphere of psychological security is always associated with the impression of fairness and thus enables subjective security at least in the manageable unit of a team or, in the best case, even in the organization as a whole.

#### **2.1.1 Definition**

*“Psychological safety describes people’s perceptions of the consequences of taking interpersonal risks in a particular context such as a workplace.”* (Edmondson & Lei, Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct, 2014). Thus, it is a team phenomenon. It is not a matter of whether individuals have a particular persuasion with respect to individual other team members.

*“Psychological safety helps to explain why employees share information’s and knowledge, speak up with suggestions for organizational improvements and take initiative to develop new products and services.”* (Edmondson & Lei, Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct, 2014).

Unlike the concept of trust, it is about a shared idea within a team and not about a concrete counterpart. Psychological safety describes in general one's own conviction regarding a complete team and not of individual team members (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018). Psychological safety is, furthermore, broadly defined as climate in which people are comfortable expressing and being themselves. More specifically, when people work in a psychologically safe climate at work, they feel comfortable sharing concerns, doubts and mistakes without fear of embarrassment or retribution. They are confident within their team to speak up because they know they won't be humiliated, ignored, or blamed by their team members. *"From a neuroscience perspective, we are essentially trying to empower individuals to express their authentic options while negating threats."* (Moritz, 2023). This also includes trust. Trust can be defined as a person's willingness to be vulnerable to another person and, consequently, to take the risk of being hurt themselves. This type of trust is based on an individual's perception. Even though in everyday language we often speak of trust in associations, institutions, or organizations, or of trust in teams, interpersonal trust always refers only to a concrete counterpart (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018).

*"Psychological safety also means to have the right climate to be confident enough to be able to speak up to those who are hierarchically higher in case of issues. Because employees are mostly the ones who can address mistreatment or injustice and can help the management level to stem illegal and immoral behavior. In general, employees can bring up problems and opportunities for improvement to the attention of those who can authorize actions because they are working in their department and normally also have a different relationship to other employees than a supervisor or manager has."* (Detert & Edmondson, 2011).

### **2.1.2 Psychological Safety in Teams**

Psychological safety mostly exists within working teams. It may also represent an important factor in the growth of teamwork. This has also often led to new working relationships where different perspectives have been integrated, information's and ideas have been shared, and collaborative effort has been developed to achieve common goals (Edmondson & Lei, Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct, 2014). Work groups are team structures that exist within a large organization or within a company and have clearly defined member roles. In a broader sense, they are jointly responsible for a product or service and develop their individual and

unique interpersonal team and work environment. Another aspect is that team outcomes and performance are shaped by the integrative perspective. This takes into account team structures, such as contextual support and coaching from the team leader, as well as shared beliefs (Hackman, 1987). These differences in work climate shape behavior in subtle but powerful ways (Edmondson A. C., The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth, 2019). The matrix below shows the relationship between psychological safety and the assumptions of responsibility to achieve demanding goals. This works, if the company gives opportunities and room to set high goals but also accept mistakes and uncertainties during the process of new projects. Psychological safety and acceptance of responsibility therefore depend on each other. This is illustrated and clarified once again in the individual zones of the matrix.

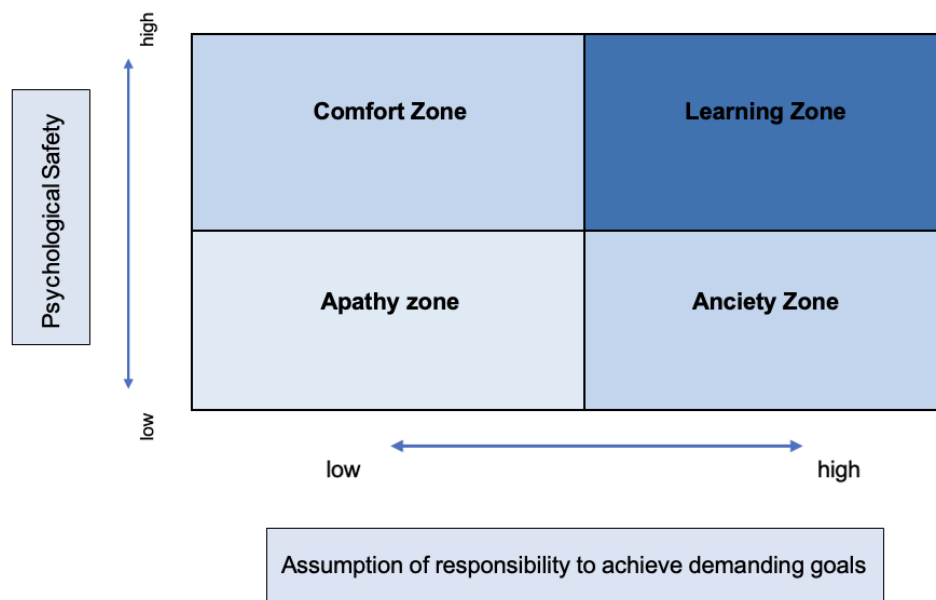


Figure 1: Relationship between Psychological Safety and the Assumption of Responsibility (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018)

While looking closer into the single zones of Goller & Laufer (2018), the following points can be used to visualize and explain them.

→ A team is in its **COMFORT ZONE** when psychological safety is high, and the assumption of responsibility is low. Also, when the team is able to discuss goals and sensible topics together and when it leaves room for critical thinking and arguments. However, teams which are in this zone see shared actions with little importance and therefore also further development hardly takes place. Main characteristics of this zone is

the fundamental satisfaction with the status quo (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018).

→ A team which is in its LEARNING ZONE has a sense of psychological safety and a high sense of responsibility within its team culture. Therefore, team-members want to achieve shared goals and share their knowledge to develop and support each other. A main characteristic of this zone is that doubts and new ideas can be shared without hesitation (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018).

→ A team is in its APATHY ZONE when a low sense of psychological safety and also a low assumption of responsibility takes place. The general climate within the team is joyless and soulless. Due to the missing interaction within the individual team-members no development is taking place. A main characteristic of this zone is that people tend to work by the book (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018).

→ A team which is facing the ANXIETY ZONE is a team with low psychological safety but has pressure of high responsibility. There is a feeling of constant pressure to reach goals and not making any mistakes. This can further lead to a restriction of individual behavioral flexibility and ability to react. This zone can also lead to a “threat rigidity effect” within the team but also for individuals which can be explained as not necessarily external threat of danger or of losing one’s job, but rather as a reduction of one’s own self-image (Goller & Laufer, Erfolgsfaktor Nr. 1 für Teams: Psychologische Sicherheit, 2018).

Furthermore, Amy Edmondson (2019) found out that psychological safety matters very much to predict learning behavior and objective measures of performance. Objective performance measures can be defined as a method of evaluating how well an individual team or organization accomplishes tasks or goals and is also known as key performance indicators (KPIs) (Indeed Editorial Team, 2022). Following Dominquez et al., (2019), KPI’s represent a metric that focuses on aspects related to organizational performance and the most critical factors for the current and future success of the organization.

### 2.1.3 Psychological Safety and Learning Behavior

During the 21<sup>st</sup> century, technology became more and more popular and therefore it plays a crucial role in our daily lives. Because of that, electronical learning possibilities developed over time like mobile learning and digital learning. Electronical learning can be seen as the overall alternative of the “traditional way of learning”. In addition, the mobile learning is a mix of traditional learning and electronical learning and can be done everywhere through a mobile device. Furthermore, digital learning is defined in the literature as the learning approach in remote areas like Home-office or Home-Learning (Basak, Wotto, & Belanger, 2018). However, when we talk about learning in a psychological safe environment, we are usually talking about learning behavior in a group or team setting.

Learning in general can be defined as an effect of experience on behavior (De Houwer, Barnes-Holms, & Moors, 2013). *“It is a process, that is, often relational in the sense of relying on interactions between people to determine what needs to be improved and how to do that.”* (Carmeli, Brueller, & Dutton, 2008).

Organizational learning is a necessary aspect for improvement of the performance (Carmeli, Brueller, & Dutton, 2008). However, definitions of learning vary widely across disciplines, largely due to the different approaches used to assess the occurrence of learning (Barron, et al., 2015). Learning depends on, if employees share their knowledge with each other to develop and present new solutions to make work more efficient and effective. Thus, learning can be seen as a dynamic exchange process between the different members of a team (Carmeli, Brueller, & Dutton, 2008). Dewey (1922) described learning as an integrative process of designing, carrying out, reflecting upon, and modifying actions (Edmondson A. , 1999).

Nevertheless, the literature shows evidence, that team psychological safety strongly and positively influences team learning behavior learning as aspect of psychological safety. It is commonly defined as team behavioral change and can be modeled simply as non-genetic inheritance (Barron, et al., 2015).

Organizational learning is a complex process that enables a system to adapt to environmental influences and develop, build, and sustain competitive advantage (Nair, 2001). Therefore, *“it is important that leaders provide a safe and non-threatening team environment that minimizes the potential for embarrassment that can occur with learning in the social context of teams.”* (Ashauer & Macan, 2013).

Referring to Amy Edmondson (1999) learning behavior consists of activities carried out by team members through which a team obtains and processes data that allow it to adapt and improve.

Moreover, the literature presents organizational learning in two different ways. On one hand, literature discuss learning as an outcome like the conceptualized organizational learning as the result of a process of organizations “*encoding inferences from history into routines that guide behavior.*” (Edmondson A. , 1999). On the other hand, the literature focuses on a process which is defined as learning like a process of detecting and correcting error (Edmondson A. C., Psychological safety and Learning Behavior in work teams, 1999). Furthermore, the Data of the research article “Learning Behaviours in the Workplace: The Role of High-quality Interpersonal Relationships and Psychological Safety” shows that close interpersonal relationships are positively related to psychological safety.

This, in turn, has higher measures of influence on team learning behavior. The results also show that experiences with close interpersonal relationships are associated with learning behavior both directly and indirectly, via psychological safety (Carmeli, Brueller, & Dutton, 2008). Research also states that even when the different points of view are wrong, they cause people to think better, to create more solutions and to improve the creativity of problem solving which leads again to learning behavior and an increase of team performance (Merchant, 2011). Referring to Edmondson (2019) conflict promotes better decision-making and foster innovation because it ensures condiseration of diverse views and perspectives. It also provides room to share individual knowledge and creates possibilities to learn and grow as a team or company. Therefore, psychological safety is essentially about reducing the personal risk that inevitably accompanies uncertainty and changes (Edmondson & Lei, Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct, 2014).

#### **2.1.4 Psychological Safety and Interpersonal Risk Taking**

Working in a psychologically safe environment does not mean that people always agree with each other for just being nice with one another. It also does not mean that people offer unconditional support for everything you have to say. In fact, as already stated, it is more the opposite. (Edmondson A. C., The fearless organization: Creating psychological safety in the workplace for learning, innivation, and growth, 2019). Mr. Chris Stark explains in his article “*As a leader of people, do you create psychological safety on your team?*” *that psychological safety isn’t the absence of criticism, it is more the acknowledgement that criticism makes relationships healthier and with criticism, also a certain risk is coming with it.*” (Stark, 2020).

Therefore, team psychological safety is also defined as a shared believe that the team is safe for interpersonal risk taking (Edmondson A. , 1999). Since Goffman studied the



fascinating micro-dynamic of face-saving in 1973, the understanding of interpersonal risk management at work has very much developed. We now know that interpersonal risk-taking including learning behavior is part of psychological safety which emerges as a property of a group.

Interpersonal risk taking can be defined as the acknowledgement that every action or suggestion we have comes with a certain amount of risk to our social and professional standing within a team or an organization (Stark, 2020). Referring to Obrenovic, et al., (2020), workers who are unable to express themselves because of the high interpersonal risk posed by the work environment are less likely to collaborate and their job performance is affected. However, willingness to learn and take risks as part of a team is only possible if the environment allows you not to be afraid of being punished or disrespected by your colleagues because of mistakes an employee makes in this process. Imagine an employee's withholding ideas from bosses because of fear of the consequences of expressing these ideas. To understand this is important because it is mostly the lack of timely input of the supervisor or manager that especially hampers organizational- or team learning (Detert & Edmondson, 2011). Amy Edmondson states in her book *"The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth"* (2019), *that fear may have once acted to motivate assembly line workers on the factory floor or farm workers in the field. Worse, there are still many managers, which still believe in the power of fear to motivate.*" (Edmondson A. C., *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*, 2019).

They assume that people who are afraid of the manager or supervisor will work hard to avoid unpleasant consequences. However, brain science has amply demonstrated that fear inhibits learning and cooperation.

Mr. David Rock describes in his report „Managing with the Brain in Mind “ (2009), that anxiety consumes physiological resources and distracts them from parts of the brain that manage working memory and process new information. This impairs analytical thinking, insight creation and problem solving. For this reason, workers find it difficult to perform at their best when they experience anxiety in their work environment. Concluding, an employee which is facing anxiety at work and experiences no room for speaking up and interpersonal development is also an unsatisfied employee which also means his job satisfaction is low. Job satisfaction can be understood as a combination of psychological safety, and environmental circumstances that can lead a person to truthfully say, "I am satisfied with my job." According to this definition, job satisfaction is under the influence of many external factors and remains something internal. In a broader sense, it has to do with the way each individual in the workforce feels. Therefore, job satisfaction represents

a set of factors that can create a sense of satisfaction and develop a factor of retention and commitment between employee and employer (Aziri, 2011).

### 2.1.5 Effects of Psychological Safety

Follwing the book “Psychologische Sicherheit in Unternehmen“ by Goller and Laufer (2018), determines 4 main outcomes how psychological safety can effect a company.

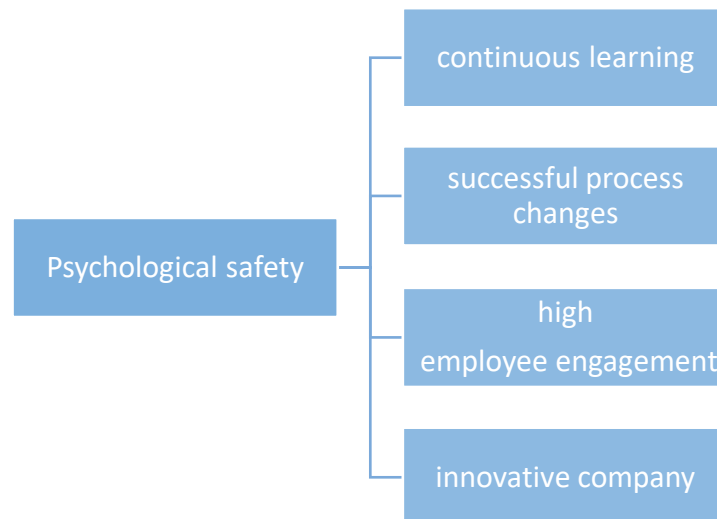


Figure 2: Effects of Psychological Safety

#### 2.1.5.1 Continous Learning

*“More and more organizations feel the need and unrgency for innovation and continuous imporvement.”* (van Breda-Verduijn & Heijboer, 2016). This is also because changes in today’s society are happening very quickly. Companies must constantly adapt to new technologies, information’s and products to ramain competitive. To do this, employees need the skills and flexibility to deal with the constant changes in their work. Therefore, learning is a key issue in this.

*“A powerful culture of learning forms an effective breeding ground for continuous learning.”* (van Breda-Verduijn & Heijboer, 2016). Also, an atmosphere of psychological safety makes learning behavior possible. Nevertheless, it is necessary that team members have important competencies such as “asking for help”, “admitting an error”, and “asking for feedback” to make continuous learning within a team possible. However, to generate continuouse learning not only certain competences are needed, also the culture of learning is necessary to support this process. Only a strong and accessible learning culture creates an effective environment for continuous learning. Further on, a

learning culture can be defined as “a collective, dynamic system of basic assumptions, values and norms which lead learning of people within an organization.” (van Breda-Verduijn & Heijboer, 2016).

Edgard Schein also argue, that psychological safety reduces the obstacle of learning anxiety. Within a psychologically safe environment, individuals can focus on common goals and problem prevention rather than self-protection and defenses (Schein, 2010).

During the process of continuous learning, it is important to understand that only if something is immediately recognized and uncovered direct learning from mistakes is possible (Schüttelkopf, 2006). “Continuous learning occurs at three different levels: Individual, Team and Organization.” (Fleenor, 2008).

At the individual level, continuous learning is concerned with the development of reflection and inquiry skills. The focus on this level is to learn through the awareness of adaption to change individual experiences. At the group level, continuous learning is reflected by team transformations. At the organizational level, continuous learning is significantly important to the success of the organization because of the increase of global competition and hardly changes in economical conditions (Fleenor, 2008). Following the authors van Breda-Verduijn & Heijboer, the 70:20:10 model, invented by McCall Lombardo and Eichinger, can be used as general template to build up a climate for continuous learning.

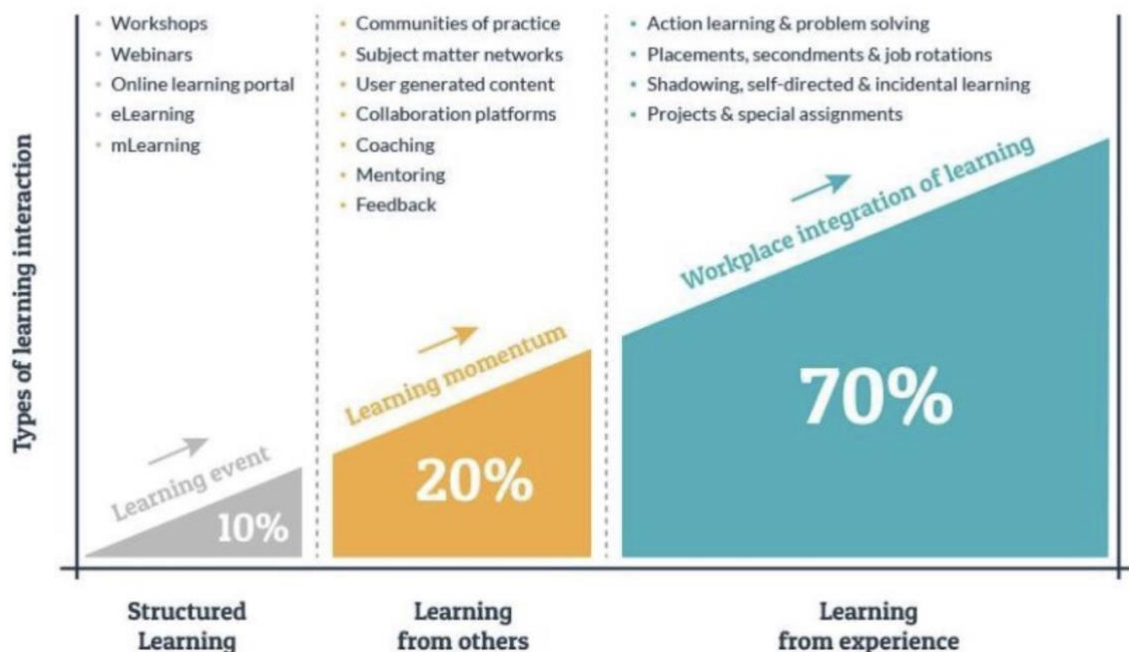


Figure 3: 70:20:10 Model

However, it is generally important to understand that the likelihood of a successful project increases immensely when such a process is carried out in a psychologically safe environment, which also gives employees the opportunity to experience the entire personal change process (van Breda-Verduijn & Heijboer, 2016).

#### 2.1.5.2 Successful Process Changes

In today's world, organizations are undergoing changes more often than in the past (Moritz, 2023). Markus Bear and Micheal Frese (2003) asserted that most companies try to control change processes and project through objectives, structure and planning. Psychological safety is a fundamental component to innovation, divergent thinking, creativity, and strategic risk-taking. If this safe environment is not fostered or the employee is not getting encouraged to ask questions or raise concerns that lead to discomfort for them, the leader is missing the mark (Moritz, 2023). However, people are the most effected and concerned resource, managers don't focus that much on them. (Bear & Frese, 2003). A lot of time and effort should be invested at the beginning of any change process to familiarize employees with the basics and encourage them to speak up. This helps fostering innovation, divergent thinking and creativity that can make change exciting and successful. It also reduces employees' stress response and can also build something critical to success: Trust (Moritz, 2023). They often don't give their employees the necessary possibilities to constuctively deal with the change. However, it is important to know, that the likelihood of a successful project increases immensely, when such a process is done within a psychologically safe environment which also gives the employees the possibility to experience the whole personal change process. In this case, a psychologically safe environment can be expereinced through team engagement, contributing to idea generation, supporting communication between team members, discussing mistakes, sharing and seeking information and thinking about alternative viewpoints and solutions within the team. It also has been proven, that new innovations progress and develop faster in an atmosphere of psychological safety than in environments without a psychologically safe atmosphere (Bear & Frese, 2003). The process of a change can be visualisized through the following chance curve. This curve describes the emotional experience of an employee which is facing a change process in his organization, department or team.

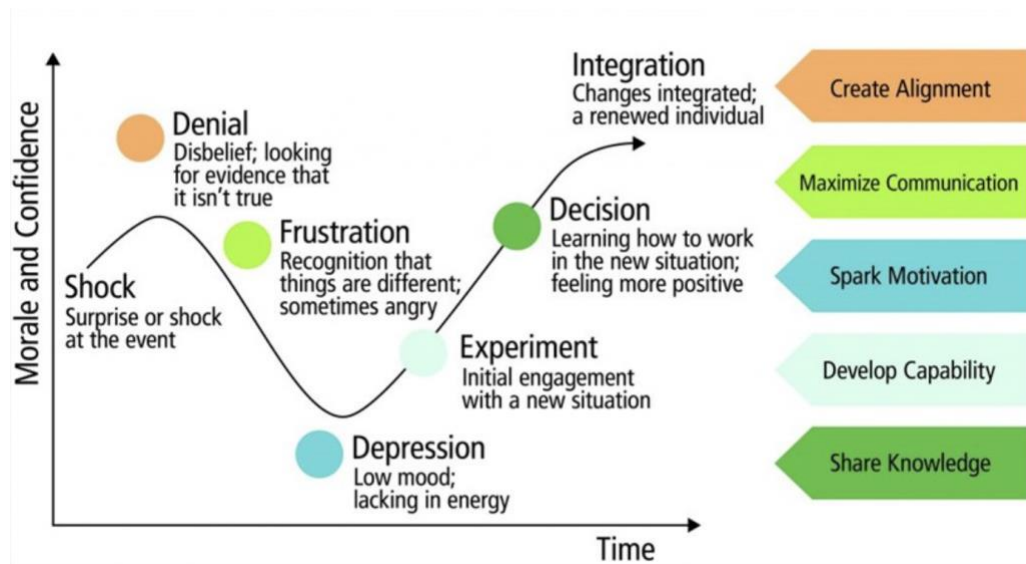


Figure 4: Change Kurve nach Kübler-Ross (Fritz, 2014)

The Kübler-Ross model can have up to seven stages which can be experienced during a change process. Those stages are (Abebe, Schwab, & Konkle, 2023):

- Shock: Shock is the first stage of the model and describes the situation when a person is facing an unexpected change.
- Denial: Denial is the following stage of the curve and describes the point where a sudden change can become difficult for an individual to believe or accept. This is mostly expressed through disbelief.
- Frustration: Frustration appears when an employee or an individual realizes the change and is getting upset or develops an anger because of it and is the third stage of the curve.
- Depression: The fourth stage of the model is the depression. It comes when an individual feels overwhelmed with the new situation and is not motivated anymore to face or interact with the change.
- Experiment: Experimentation comes when an employee starts to engage himself with the new situation and is the fifth stage of the model.
- Decision: When a person is learning to handle and interact within the new situation and starts to develop a more positive and safe feeling about the future and the next steps which are coming.

→ Integration: The last stage of the curve is the integration stage. This one appears when an individual has made it to the full acceptance of the change and becomes a renewed person.

In all stages of the change curve, psychological safety is important because it gives the affected person or even the affected team the feeling to be able to communicate openly and therefore, the likelihood of a successful change process is higher. (Bear & Frese, 2003)

#### 2.1.5.3 Employee Engagement and Organizational Commitment

A result of a psychologically safe work climate is the fact of employee engagement towards the company the employee currently works in. Even though there is no general definition of employee engagement, the literature shows a widespread agreement that it can be defined as an emotional commitment to one's work and a willingness to give of one's best at work. It is how people feel about their work that determines their levels of energy, ownership, commitment and initiative (Peters, 2019). Commitment, defined as the extent to which an employee is enthusiastic about his or her job and feels connected to the organization, is considered as an indication of how willing someone is to voluntarily put effort into his or her work. This builds also on the long-standing focus on employee engagement, which is also an important metric for predicting employee turnover (Edmondson A. C., The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth, 2019).

A part of employee engagement or commitment is job satisfaction. Moreover, the business world is transforming from a digital society to a knowledge-based society, which makes the corporate environment more complex and diverse than ever before (Ahmad, Ullah, AlDhaen, Han, & Scholz, 2022); (Andersen, 2020). Therefore, it is important for a company to generate and maintain employee engagement. The most obvious method to do this is through internal communications (IC), which are often labeled as internal branding. However, internal branding is much more than just IC. Marketing and HR also play a key role in this process (Pollitt & Brown, 2008). During a study processed by Punjaisri & Wilson (2017) outcomes showed that internal trainings for employees and internal communications, like newsletters, daily meetings and discussing forums, were defined as the most common and important methods for internal branding.

Ahmad et al., (2022) asserted that employees which are assuming that their current organization offers a safe environment to work is a key prerequisite to enhance employee engagement and also their creativity to come up with new ideas. Zeng, Zhao, & Zhao (2020) states that the amount of commitment an employee shows and feels, depends on the level of psychological safety. Research also asserts that inclusive leadership to subordinates can improve employees' state of psychological safety level and stimulate employees' state of learning and vitatliy which, in turn, positively affects their ability and willingness to engage in taking charge-behavior.

#### 2.1.5.4 Innovative Company

Another important factor or outcome effected by psychological safety can be an innovation. This factor is important in determining organizational competitive advantage and maintaining sustainable growth (Liu, Huang, & Jaehyoung, 2023). Innovation, broadly defined as the invention, development and implementation of new ideas, is widedly acknowledged as an essential driver of the vitality and long term survival of firms (Andersson, Moen, & Brett, 2020). If an employee is proud to be a member of a company or team, they are also epected to maintain the positive reputation of their employer, which ultimately unfonds their creative potential (Ahmad, Ullah, AlDhaen, Han, & Scholz, 2022). As already explained previously, a psychologically safe environment encourages employees to develop new ideas and to present them fearlessly in their team and their supervisors. Another aspect, which can support an innovative company is the fact of how a leader is dealing with errors and valuing their potential to grow. It should be more asked "how can we learn from those mistakes?" rather than "who did it?" and blame that person for it. In essence, psychological safety promotes innovations and cognitive processes of creativity such as divergent thinking or experimentation. It makes it easier for everyone on the team to take risks. In general, team members are more likely to come up with new ideas and innovative solutions to problems if they do not have to fear negative judgements from others. Moreover, the more people participate in decision-making in this way, through interactions exchange, the more likely they are to commit to decisions later and to offer further and new suggestions for improvement (Goller & Bessant, 2017).

## **2.2 Leadership as part of Psychological Safety**

As stated beforehand, psychological safety is not all you need for high performance. On one hand, psychological safety takes off the brakes which are keeping employees from achieving what would be possible for them. On the other hand, the literature shows that leadership has also a big impact on existing teams and how they perform (Kaiser & DeVries, 2000).

### **2.2.1 Definition**

Leadership is the social influence process that creates shared norms and values, unites groups with a collective purpose, and directs group efforts towards the realization of common goals (Kaiser & DeVries, 2000). Day, Gronn, & Salas state in their Leadership capacity in teams that *“leadership can be also considered as an outcome of team processes. This perspective however complements but does not replace the perspective of leadership as an input to team processes and performance.”* (Day, Gronn, & Salas, Leadership capacity in teams, 2004). Moreover, team leaders can make the difference between the success or failure of a team and have a major impact on the extent to which teamwork (doesn't) exist. Therefore, they have a great influence on whether effective teamwork exists or not.

An effective team leader should create a climate that promotes mutual performance monitoring, supportive behavior and adaptability between the individual team members but also between the team leader and the subordinates. Put another way: Leaders can make a valuable contribution to positive and interpersonal team processes. Effective team leaders shape the development of shared mental models in their teams by systematically seeking, evaluating, and organizing information about the functioning and constraints of the team structure. Following this, leaders then take on the role of sensemakers by interpreting and communicating key informations to the team, creating a framework that promotes shared understanding and action. In this way, effective leaders can help develop leadership skills at the team level, then be used by the team (Day, Gronn, & Salas, Leadership capacity in teams, 2004).

One big topic which belongs to this point of view is the organizational citizenship behavior (OCB), which has received increasing attention in the last years (Tran & Choi, 2019). Organizational citizenship behavior is defined as a term that refers to any voluntary behavior that goes beyond what is expected of an individual or employee. This can include helping other team members or taking on extra tasks (Verlinden, 2020). Leaders in this case have two vital tasks. One of them is that they must build a psychologically safe environment within



the work climate to support learning and to avoid failures. The second task of a leader is to set up high standards and inspire and motivate their subordinates to reach those standards and push their limits (Edmondson A. C., 2019).

Furthermore, psychological safety is necessary for the productivity and the well-being of a workforce in an organization. While everyone in an organization has the opportunity to promote psychological safety, it can be especially effective when a leader or manager begins. To build and cultivate a psychologically safe climate at the workplace is a process that should help the workforce to develop new beliefs and behaviors (Moritz, 2023). The literature states, that before psychological safety can be build up in a company everyone has to feel "safe" themselves in the first place. "According to Self-Determination Theory, individuals feel safe when their basic psychological needs are being satisfied.", (Wouters-Soomers, Van Ruysseveldt, Bos, & Jacobs, 2022).

Ryan & Deci, 2000 inventd the Theory of Self-Determination. This Theroy explains that every person in gernal has three basic psychological needs:

→ The need for autonomy

Autonomy-inhibiting or controlling behaviors include the use of rewards, the use of intimidating languages, making demands without giving reasons, the use of conditional esteem, and the use of excessive personal control (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2009)

→ The need for connectedness

Relationship-inhibiting behaviors include distancing themselves from others, not forming an emotional bond, shutting them out, not listening, and not being available when needed (Sheldon & Filak, 2008)

→ The need for competences

Competence-hostile behaviors include highlighting the faults and mistakes of others, discouraging people from attempting difficult tasks, sending the message that someone is incompetent, and doubting their ability to improve (Sheldon & Filak, 2008).

The behaviors described as need inhibiting behaviors are the very ones that threaten the psychologically safe environment in an organization. If an individual is confident that other team members will not pity or exclude her for asking for help, she likewise believes that others will not doubt her ability to improve and develop herself. Thus, to ensure that the team is safer for interpersonal risk-taking, one must believe that others will not "not take

seriously" one's basic needs. When individuals experience that their needs are not taken seriously, they are likely to develop long-term outcomes such as burnout, depression, negative affect, and physical symptoms (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2009). This means that a person whose needs are not taken seriously will build a psychologically unsafe environment. Therefore, studies indicate that self-compassion is required when basic needs are not met to build the necessary positive relationships needed to develop psychological safety (Wouters-Soomers, Van Ruysseveldt, Bos, & Jacobs, 2022).

When a person is interested in the well-being of others and additionally is able to empathize with others, then the literature states it as a positive relationship (Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011).

Moreover, Carmeli, Brueller, & Dutton, (2008), found in their research, a strong correlation between the experience of high-quality relationships and psychological safety. While positive relationships refer to interest in others, social acceptance means that other individuals signal that they want to include another individual in the group (Leary, 2010). In addition, Moor, Diener E., & Tan, (2018), conclude in their review, that positive affect not only results from positive relationships, but it can also cause them. The same appears for self-compassion. Self-compassion is associated with various benefits for interpersonal relationships. These associations may be complex, such that positive social relationships promote self-compassion, while self-compassion promotes relation and emotional well-being (Wouters-Soomers, Van Ruysseveldt, Bos, & Jacobs, 2022). If this happens, psychological safety can be built up in a team or organization more easily.

Another aspect regarding the development of psychological safety can also be the focus which can be shifted and linked to performance. As explained later in this paper, a psychologically safe climate can increase the work motivation of the employees which in return can influence the overall performance of a team or company. Work motivation in general can be defined as an employee's willingness and commitment to perform his or her professional duties which are necessary the individual work position (Prof. Dr. Nerdinger, 2014). Furthermore, motivation can be divided in intrinsic motivation and extrinsic motivation. "*Intrinsic motivation is most commonly defined, as doing something for its own, while extrinsic motivation refers more to the pursuit of an instrumental goal.*" (Reiss, 2012). Reiss (2012), also states in his article that, "*extrinsic incentives undermine intrinsic interest.*"

Therefore, it can be effective if a leader begins with the process of building up psychological safety within the team or company. A positive influence to motivate leaders, is to show and explain them that psychological safety influences the performance improvement. In other

words, it is a downstream effect of psychological safety that employees are coming up with the very best ideas and solutions in groups or by themselves in a safe environment. Mostly, leaders are sold on the idea of psychological safety when it is directly linked to performance results (Moritz, 2023).

Next to that, leadership can be seen as a particularly important factor that influences creativity and innovation in organizations (Mumford & Hunter, 2005). Nevertheless, a leader must be always aware of his or her leadership style and how it can affect his or her subordinates (Lian & Tui, 2012).

### 2.2.2 Leadership Styles and Psychological Safety

Following Dewi & Wibowo, (2020), leaders can greatly impact the effectiveness of the organization in achieving its vision, mission and goals. Leadership is in general the backbone of the organization. Without adequate and good leadership, it is difficult to achieve the organization's goals and to adapt to the changes that take place in- and outside of a company.

While looking into the literature, there are six basic leadership styles which are driven from different competences (Goleman, 2000).



Figure 5: Leadership Styles by Goleman (Goleman, 2000)

→ The **commanding leadership style** also known as the coercive style can be very effective in a turnaround situation or while working with difficult employees. However, mostly the commanding style inhibit the organization's flexibility and dampens the motivation of the workforce or also from single employees. The coercive leaderships style mainly works with the "Do what I say" approach (Goleman, 2000).

→ Secondly the **affiliative leadership style**. This style works with an "People come first" approach and is particularly useful for building harmony within a team or to increase moral. Nevertheless, its exclusive focus on praise can allow low performances and can leave these situations uncorrected. Also, affiliative leaders rarely offer advice, which often leads employees to quandary (Goleman, 2000).

→ Thirdly, the **visionary leadership style**, also known as the authoritative style. This leadership style uses a "Come with me" attitude. This way of leading works especially well when a company is adrift. However, it is not that successful when a leader is working with a team which is individually more experienced than he actually is (Goleman, 2000).

→ Another leadership style which belongs to the 6 basis ones is the **democratic style** which is able to build up flexibility and responsibility within the organization, gives the workforce a voice within decision-making processes and further helps to generate fresh ideas. However, a pitfall of this leadership style can be, endless meetings and confused employees which are feeling leaderless. Leaders which are tempting to a democratic leadership style mostly use a "What do you think" approach (Goleman, 2000).

→ The fifth leadership style is the **pacesetting style**. Those leaders set high performance standards and exemplifies them. This leadership style can have a very much positive impact on people who are very much self-motivated and highly competent. However, on the other hand, employees which aren't highly motivated or aren't that much competent tend to feel overwhelmed by such demanding leaders (Goleman, 2000).

→ The last leadership style out of those 6, is the **coaching style** which focuses more on personal development than on immediate work-related tasks. This style can mostly only be successful when subordinates are already aware of their weaknesses and strength and want to improve and develop themselves, but not when they are resistant to changing their ways. A leader with a coaching leadership style is using a "Let's try it" approach (Goleman, 2000).

However, it is also important to understand that there are many more ways of leading than those 6 basic styles state. Throughout the research of Tran & Choi (2019), the authors found out that among a variety of different leadership styles, transformational leadership is related to a higher level of employee organizational citizen behavior because it motivates

employees by getting them to internalize and prioritize a larger collective cause over individual interests. However, supportive management for example exerts impact on organizational citizen behavior.

*“Transformational Leadership can be understood as leadership style which makes subordinates aware of the importance of their jobs for the organization and how necessary it is for them to perform those jobs as good as they can, so that the organization is able to attain its goals.”* (Bass & Avolio, 1994).

On the other hand, Tran & Choi (2019) argue in their paper, that inclusive leadership creates tremendous motivation for employees by focusing on their needs and therefore, employees are more likely to perform organizational citizen behavior (OCB) when their leader tends to an inclusive leadership style. Inclusive leadership can be defined as leadership style which focuses on the development of the team and its individuals with their respective strengths and abilities but also craves for diversity.

Pauline Zenger states in her article “Key Differences Between Exclusive and Inclusive Leadership”, that inclusive leaders will introduce a task or take a decision without fear that it will not be accepted by their subordinates. Even when they introduce something out of the box, they know that they are respected enough that their employees will come on board or criticize it. This also fits to the goal to enhance employees’ psychological safety. Also, employee voice behavior is playing an important role in determining the competitive advantages of success of an organization. *“Employee voice behavior is generally defined as promotive behavior that emphasizes expression of constructive challenge intended to improve rather than criticize.”* (Hu, et al., 2018).

Furthermore, voice behavior leads to employees who are willing and able to challenge the working status to influence constructive changes (Hu, et al., 2018).

Referring to that, one of the important factors which influences voice behavior in an organization is the “ethical leadership” (Hu, et al., 2018). Ethical leadership can be defined as *“the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making.”* (Brown, Trevino, & Harrison, 2005). An ethical leader which is demonstrating high moral values including integrity, trustworthiness, and honesty is one who acts in a fair and principled manner. Such leaders are genuinely concerned for their employees. These are factors which differentiate ethical leadership from, for example, transformational leadership, transactional leadership or authentic leadership approach. The link between employee’s voice behavior and ethical leadership exists, because employees are observing leader’s behavior in general and

specific situations. Those observations are then used as a reference for their future actions and their decision making. A review of the crucial criteria and outcomes of psychological safety, states that one can induce increased voice behavior through leadership that improves employees' psychological safety both individually and within teams (Hu, et al., 2018).

When looking into the 6 leadership styles of Goleman, the author of this paper would claim, that the most effective way to create a psychologically safe climate is when leaders have the ability to connect the democratic, the affiliative and the coaching leadership style. This is because the democratic style focuses on the team and also on the input of the employee. Almost the same as the coaching style does. Here the focus is on innovation and to give the subordinate the feeling of being able to take risks, show initiative but also to be able to criticize. The affiliative leadership style in the meantime focuses on harmony and on the teamwork and therefore supports the process of building a "safe feeling" for the employees to speak up. However, the literature shows that there is no specific leadership style which fits or creates a psychologically safe environment. It is more about the way how people treat others and how positive the overall team-climate is (De Smet et al., 2021). Leaders in general should therefore be accessible, concerned with the needs of their subordinates, tolerant different opinions, and mistakes but should also create an environment for creativity and skill-development.

### **2.2.3 Social awareness and Psychological Safety**

Referring to Carmeli, Reiter-Palmon, & Ziv (2010), leaders contribute to employee creativity and skill-development in multiple ways. They mostly serve as a role model for creativity behaviors and innovations and therefore they can invigorate and energize their subordinates to become more involved in the performance process. Moreover, leaders are also able to provide resources like time, funding information's which are necessary for development processes and learning behavior.

However, as Day (2000) pointed out – leadership is more than just a skill set of individuals. He also differentiate between "leader development" (focuses on individual skills) and "leadership development" (focuses on the social context in which leadership takes place). In their study, Smeets et al. (2021) identified four critical behaviors of supervisors to facilitating learning mistakes in addition to promote a psychologically safe work climate.

Those critical behaviors are:

- Being accessible and personally involved
- Providing timely feedback
- Guidance and elaborate feedback
- Organizing joint evaluations

To generate psychological safety it is important to understand that social awareness is a facet of interpersonal competence for leadership development and that social awareness includes empathy and developing others (Iles & Preece, 2006). But most workers at some point have experienced a manager or supervisor who doesn't quite have that formula down. As a result, the work climate devolves into a negative one, marked by employees who have low engagement and are "just getting by" in their jobs (Graham, 2014). Also when it comes to errors during any creative process or new projects. Human errors are a recurring result of organizational work, despite all efforts to avoid them. Once these errors occur, they can result in several negative consequences for the person (stress or feeling incompetent) or the company (Smeets, Gijssels, Meuwissen, & Grohnert, 2021).

When issues or errors stay unaddressed, even more problems will come up. In short, we live and work in communities, cultures, and organizations in which not speaking up can have hazardous impacts (Edmondson A. C., *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*, 2019). However, we do live in a society where people silence themselves to avoid embarrassment and confrontation. Organizational silence is a new phenomenon that is posed in the area of human resources and the theory of organizations (Rezabeygi & Almasi, 2014). Many organizations and their leaders send the message - verbally or nonverbally – that falling into line and being quiet is the safest way to hold on to our jobs and further our careers. Also, the research of Leslie Perlow and Stephanie Williams shows that silence is not only ubiquitous and expected in organizations but extremely costly to both the firm and the individual (Perlow & Williams, 2003). Furthermore, silence doesn't just mean "not speaking up". Rather it means being absent, not writing, having negative outlooks and not listening. In fact, the working members prefer to be silent when they know that they will oppose their opinions.

Likewise, for leaders and managers it is also necessary to be aware of, that there are various types of organizational silence. Those are based on the motives and reasons responsible for the silence of the individual employees or whole teams.

→ Submissive silence: the reason for this type of silence is resignation, being passive and satisfied with everything.

→ the individual believes that it is useless to speak.

→ the individual is not sure about his abilities to exercise any influence.

→ Defensive silence: the reason is self-protection which means that the reason is fear in the organization.

→ Agitation others

→ Creating bad consequences for oneself

→ Friendly silence: the reason is letting others speak and creating opportunities for the spread of attempts.

→ taking benefits from others' speeches

→ Refraining from giving out information's for being secret and confidential (Rezabeygi & Almasi, 2014).

Referring to Çınar, Karcıoğlu, & Alioğulları (2013), the organizational voice is the source for a lot of benefit for the organization. However, with the increase in the organizational silence, we witness less OCB. This means that not allowing the workers to speak up and express their opinions, will cause a lower psychological safety in the company or team.

However, most of the research argue that employees' upward communication in term of suggestions, ideas, and information about problems or issues of concerns, have unique implications for employee performance and their association with their organization. Such a system can support managers and supervisors to respond appropriately to dynamic business situations and make effective decisions based on realistic problem identification and solving approaches (Salman, Habib, & Awan, 2020).

## **2.3 Leader-Member Exchange (LMX)**

Hu, et al., (2018) explain in their paper that, *„the relationship between superior and subordinate is considered to be a key variable influencing employee voice behavior”* and therefore also psychological safety. For this reason, a stable and open exchange between leader and employee needs to be accessible. Therefore, the Leader-Member Exchange theory (LMX) is introduced in this paper. Following Anand, et al., (2011), the LMX theory is based on the principle that each leader-employee relationship within a team is unique. Further, the LMX theory refuses to include the perceptions that each employee has regarding his or her supervisor in determining individual leadership style. This distinguishes LMX from other common leadership approach determination processes.



The LMX development process is strongly influenced by the growth of mutual trust, sympathy, and respect. Some of the factors of LMX are perceived similarity and linking between manager and employee, mutual expectations, manager's delegation, and employee's performance (Wang & Shi, 2020). In general, *"LMX is treated as a property of the leader and the leader-member relationship, rather than an interaction-based exchange behavior and focuses on the dyadic relationship between the leader and his or her subordinates."* (Sheer, 2014).

A diadic relationship can be defined as a close bond between two people which lasts over a long time period with many interactions in various settings (Sheer, 2014).

In addition, the theory states that superiors and subordinates develop unique relationships based on their social exchanges and that those exchanges can influence employees outcomes and satisfaction. This is also important to avoid creating silence in the organization. Supervisors and subordinates with an even relationship, automatically have a higher trust level than normally. This also leads to supervisors seeing these employees more as "insiders" and less as "outsiders." As a result, employees with a good relationship with their superiors usually have a better exchange of information. At the same time, the close relationship and benefits usually lead to more trust and recognition among employees, which in turn is a key factor in improving psychological safety.

Even though the manager does not form close relationships with all employees, these very bonds can positively influence the perception of psychological safety of the "outsiders" (Wang & Shi, 2020). Therefore, it is necessary to understand that when leaders exhibit openness, availability and accessibility they are more likely to facilitate the development of psychological safety among employees at work and can support achieving company goals (Carmeli, Reiter-Palmon, & Ziv, Inclusive Leadership and Employee Involvement in Creative Tasks in the Workplace: The Mediating Role of Psychological Safety, 2010).

## **2.4 Work climate in an organization**

While performance and financial goals are often prioritized by leaders, they also have to be aware that they are also responsible for implementing ethical behaviors and moral values into the corporate- and work culture that guide employee's behavior (Grojean, Resick, & Smith, 2004). Leaders are also able to influence the climate of the workgroup or organization indirectly by supporting a positive, open and trusting atmosphere (Carmeli, Reiter-Palmon, & Ziv, Inclusive Leadership and Employee Involvement in Creative Tasks in the Workplace: The Mediating Role of Psychological Safety, 2010).

### **2.4.1 Definition**

The organizational climate can be understood as the shared perception and importance of policies, practices and procedures experienced by employees, and the behaviors observed are rewarded, supported and expected (Ostroff, Knicki, & Muhammad, 2003). Furthermore, climate is also commonly stated as the mutual awareness of an organization's formal and informal policies, practices, and procedures (Carr, Schmidt, Ford, & DeShon, 2003). Work climate approaches are considered as critical factors in employee's individual behaviors in their firm because it mediates the relationship between objective and characteristics of the work climate and individual responds to it (Campbell, Dunnette, Lawler, Weick, & McGraw-Hill Companies, 1970). This is because individuals don't respond directly to the work climate. They must first perceive and interpret their environment.

The climate can be typically understood as a concept that indicated the objectives of the organization and the appropriate means to achieve them (Carr, Schmidt, Ford, & DeShon, 2003). On the other hand, the work climate also influences the general business climate. This can be broadly understood as the common basic assumptions, values and beliefs that characterize an environment and though newcomers the right way to think and feel (Schneider, Ehrhart, & Macey, Organizational Climate and Culture, 2012).

Organizational or work atmosphere is the perception of the work climate by an employee. It is how individuals feel when they are at work, which has a direct impact on how motivated they are to execute their tasks (Graham, 2014). On the other hand, organizational climate refers to an employee's perception of the work climate and culture of the firm they are hired at (Jay, 2022). Referring to O'Driscoll, Pierce, & Coghlan (2006), the work climate is related to the degree to which members of the organization develop a sense of ownership towards their employer and that feelings of possession or ownership (for the job and for the firm) are in turn associated with employee attitudes and behaviors concerning the jobs and the organization. Employees attitude is also affected by the work position someone has and if

that position consistent with the individual education and highest completed qualification level.

Referring to the AK Oberösterreich, *“14% of the employed people in Austria pursued professional activities which were not consistent with their formal education in the last three years. In addition, 18% of all employed people in Austria had a higher formal educational attainments than were required for their jobs. This means, that in total, one third of the total employees are under- or overqualified for their jobs which significantly increases the dissatisfaction at work.”* (AK Oberösterreich, 2019).

These differences in qualification level and tasks, can also lead to dissatisfaction in the workforce, which again has an influence on the work climate itself because the employees can develop a negative feeling regarding their managers and company if employee skill development in both directions (underqualified employees can make up to their tasks / tasks have to be changed for overqualified employees) does not take place. Also the paper of Gelade & Ivery (2003) refers to several examples where they have found links between the work climate and the employees performance and satisfaction. The literature also states that a company's culture can have a positive correlation with its long-term performance (Gelade & Ivery, 2003).

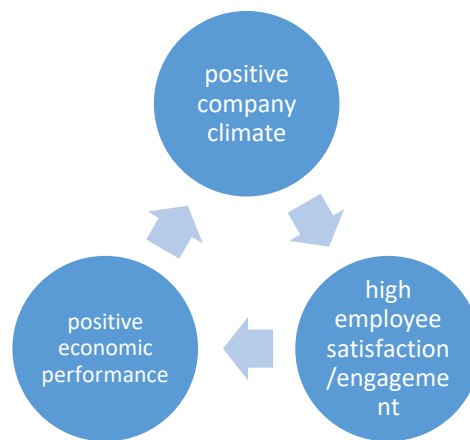


Figure 6: Correlation between Company Climate, Employee Satisfaction & Economical Performance

According to Graham (2014), *“employee engagement and satisfaction has a direct impact on an organizational and work climate and also influences the willingness to put effort for the success of the company. Studies also show that engaged workers are more likely to be more loyal and normally do not hesitate to go the extra mile for their employer.”* (Graham, 2014).

*“Therefore, environmental perceptions are seen as a critical determinant of individual behavior in organizations, mediating the relationship between objective characteristics of the work climate and individuals’ responses.”* (Campbell, Dunnette, Lawler, Weick, & McGraw-Hill Companies, 1970).

In addition, it is also believed that an unstructured work climate allows individuals to exercise more control over the work environment. As the sense of control over the target of ownership increases, it becomes more and more a part of the extended self.

Moreover, it is argued that in an unstructured work climate, the individual employee develops a closer and more intimate attachment to the work and the organization because there are fewer structures dictating when and how the employee must perform his or her tasks. As a result the employee is forced to explore the situation and develop and critically evaluate his or her response options before acting. Additionally, it is believed that in an unstructured work climate, the employee develops a closer attachment to the work and the organization itself because there are fewer structures and rules dictating when and how to do something. As a result of less priority and externally imposed structure, the worker should explore the situation and carefully consider his or her options before acting (O'Driscoll, Pierce, & Coghlan, 2006).

## **2.4.2 Error Management**

However, an unstructured work climate also brings room for mistakes with it. A positive and unstructured work climate should also include the ability to handle mistakes and errors the right way. Errors are normal in everyday corporate life, but also in the environment, the economy and also in public policies and have both positive and negative effects on a company's performance and results. Literature shows that the error management culture is positively related to the performance of a company. This is represented by employees' learning from mistakes and innovative work behaviors. It is also confirmed that the perceived psychological safety of the workforce positively influences the direct relationship between learning from mistakes and error management culture.

Errors occur in every organizational activity, from product development to services, and have certain negative effects, such as lower customer satisfaction, negative publicity, damage to reputation, increase in economic costs, increased psychological stress, job dissatisfaction, and in extreme cases, loss of life (Javed, Jalees, Herani, & Rolle, 2020). To understand learning from errors, it is necessary to define the term "error" for a clearer understanding. In the paper, written by Smeets et al. (2021), errors are defined as individual actions that lead to an unintended deviation from a defined goal and jeopardize the

achievement of higher-level defined goals. However, errors are natural in such processes and are also important to promote active learning. Due to this, from an organizational perspective, companies should create an inclusive and psychologically safe climate to improve and encourage employees' willingness to take responsibility, as this leads to better learning behavior in general (Zeng, Zhao, & Zhao, 2020). However, to affect and influence employee's willingness to take responsibility, the organization needs a climate where errors are managed the right way and where mistakes are seen as positive learning possibilities. Willingness to take responsibility also includes being able to make decisions. That's why, also a decision-making process falls under the topic "Error Management (EMT)". Therefore, it is necessary to take into consideration that there are two options to handle errors.

When leaders confront subordinates' errors, there are two options how to handle those errors:

→ **Error Management:** *"If the organization tend more to an error management culture, employees are able to learn from mistakes without being penalized for what they have done."*, (Deng, Kim, Murray, & Min, 2022).

→ **Error Aversion:** If the organization tend to an error aversion culture, it is more likely that subordinates will be blamed or punished if they committed an error and furthermore are expected to learn from the penalty but not from the mistake.

Literature shows, that employees become encouraged to focus on service qualities, develop more creativity and a higher commitment to the organization, when they work in an error management culture rather than in an error aversion culture which has more impact on the increase of employees dissatisfaction and therefore also on the company's performance (Deng, Kim, Murray, & Min, 2022).

### **2.4.3 Model of Moral Climate**

Throughout the history of the climate literature, researchers have not only been interested in how people arrive at general conclusions about the organizational climate but also how these conclusions relate to behavioral criteria (Argyris, 1964). Although workplace climate has been studied extensively, research has not led to clear conclusions regarding its relationship to individual-level work outcomes (Carr, Schmidt, Ford, & DeShon, 2003). Therefore, James & Jones (1974) developed the first and most comprehensive "Model of Moral Climate" regarding the conceptual relationship between organizational structure and individual attitudes and behavior. This open system model focuses on the relationship between climate perceptions and end-result criteria. Their model is the basic groundwork for future research like this thesis (Carr, Schmidt, Ford, & DeShon, 2003). Therefore, the

forthcoming master's thesis on leadership training regarding the awareness of psychological safety in teams is largely based on the already existing model of the meta-analysis of Carr, Schmidt, Ford, & DeShon (2003).

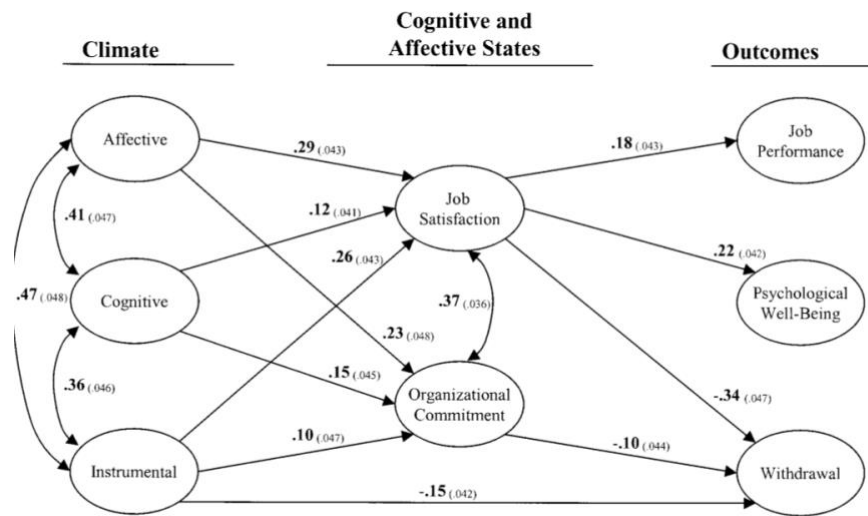


Figure 7: Climate to Cognitive and Affective States and Outcomes (Carr, Schmidt, Ford, & DeShon, 2003)

The groundwork of the used model was further developed for example by Mr. Orstoft. Figure 2 presents the conceptual model which consists out of three higher order factors of climate (affective, cognitive, and instrumental), two process variables (job satisfaction and organizational commitment) and three outcomes (job performance, psychological well-being and withdrawal).

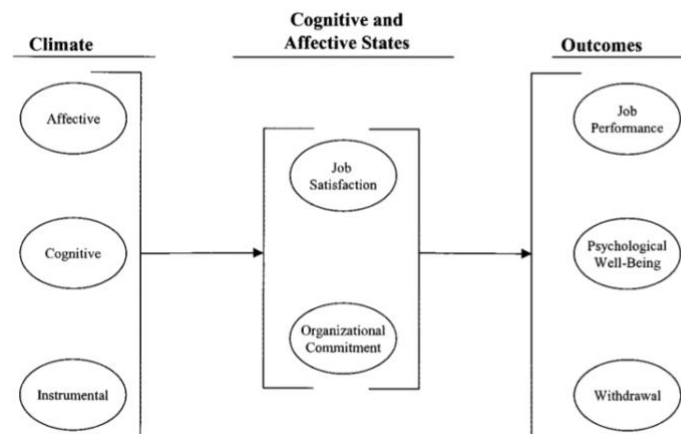


Figure 8: Conceptual model of the relationship between climate, cognitive and affective states, and outcomes

(Carr, Schmidt, Ford, & DeShon, 2003)

While looking into work climate perspectives and the model, three higher order facets were defined which can be understood as the following (Carr, Schmidt, Ford, & DeShon, 2003).:

<b><u>Affective</u></b>	The affective facet is concerned with interpersonal and social relations among workers. The four dimensions underlying this facet are participation, cooperation, warmth, and social rewards
<b><u>Cognitive</u></b>	The cognitive facet represents dimensions primarily related to the self or individuals' involvement in work activities. It consists of four dimensions including growth, innovation, autonomy, and intrinsic rewards.
<b><u>Instrumental</u></b>	The instrumental facet, concerns task involvement or getting things done in the organization. The dimensions that fall under the instrumental facet include achievement, hierarchy, structure, and extrinsic rewards.

Table 1: Definitions of Climate Perspectives

Conceptually, this base-model is consistent with the models previously forwarded in the literature (e.g., James & Jones, 1974). Carr, Schmidt, Ford, & DeShon (2003) proposed that the impact of organizational climate of outcomes of interest (withdrawal, performance and psychological well-being) occurs through its impact on the cognitive and affective states.

## 2.5 Hypotheses Development

*“An experiment uses predictions, known as hypotheses. This is because the researcher anticipates whether or not a relationship exists between the variables or not.”* (Saunders, Lewis, & Thornhill, 2015).

In the following part, the interrelationships of this study are explained more detailed. In the previous study, on which this master's thesis is based on, the interrelationships of the individual items were examined based on various literature sources. Essentially, the aim is to show whether and if so, how strong, the interrelationships of the individual aspects of the “Model of Moral Climate” are and how the aspect of psychological safety is linked to all those other items.

*Climate perceptions* are seen as a critical determinant of individual behavior in organizations, mediating the relationship between objective characteristics of the work environment and individuals' responses (Campbell, Dunnette, Lawler, Weick, & McGraw-Hill Companies, 1970). *Climate* is commonly defined as the shared perception of organizational policies, practices, and procedures both formal and informal (Schneider, Ehrhart, & Macey, Organizational Climate and Culture, 2012). The factor *Climate* is divided into 4 subcategories in this paper. The affective-, cognitive- and instrumental facet of climate and psychological safety.

Due to the fact, that the base model predefines hypotheses to generate knowledge about the correlation between the single items, the researcher used the same approach.

#### Affective Climate

- H1: There is a correlation between the affective climate and job satisfaction.
- H2: There is a correlation between the affective climate and organizational commitment.
- H3: There is a correlation between the affective climate and the cognitive climate.
- H4: There is a correlation between the affective climate and the instrumental climate.
- H5: There is a correlation between the affective climate and psychological safety.

#### Cognitive Climate

- H6: There is a correlation between the cognitive climate and the instrumental climate.
- H7: There is a correlation between the cognitive climate and psychological safety.
- H8: There is a correlation between the cognitive climate and job satisfaction.
- H9: There is a correlation between the cognitive climate and organizational commitment.

#### Instrumental Climate

- H10: There is a correlation between the instrumental climate and job satisfaction.
- H11: There is a correlation between the instrumental climate and organizational commitment.
- H12: There is a correlation between the instrumental climate and psychological safety.
- H13: There is a correlation between the instrumental climate and withdrawal.

#### Psychological safety

- H14: There is a correlation between psychological safety and job satisfaction.
- H15: There is a correlation between psychological safety and organizational commitment.
- H16: There is a correlation between psychological safety and job performance.
- H17: There is a correlation between psychological safety and psychological well-being.
- H18: There is a correlation between psychological safety and withdrawal.



#### Job Satisfaction

- H19: There is a correlation between job satisfaction and organizational commitment.
- H20: There is a correlation between job satisfaction and job performance.
- H21: There is a correlation between job satisfaction and psychological well-being.
- H22: There is a correlation between job satisfaction and withdrawal.

#### Organizational Commitment:

- H23: There is a correlation between organizational commitment and withdrawal.

### **3. Methodology**

The following chapter shows the methodological aspects underlying this thesis. First, the research model is explained. Subsequently, the choice of this empirical research approach is justified, and the research design is presented. In addition, the sample and the data collection procedure are specified. In the following steps, the structure of the questionnaire is explained, and the measurement items used are outlined (Operationalization). Additionally, their reliability and validity are reported. The hypotheses used to visualize and calculate the correlation between the single items were already presented in chapter 2. The chapter concludes with a detailed description of the data analysis procedures.

#### **3.1 Research Model**

This study examines the potential effects of leadership trainings regarding the awareness of psychological safety in the workplace on already existing teams (departments) and the general work climate in an organization using a theoretical model which is already available in the literature ("Model of Moral Climate" – figure 5) and calculating the correlations between the individual items of the model. In order to visualize the influence (correlation) of psychological safety on the already existing variables, the "Model of Moral Climate" was adjusted by the item "Psychological Safety". In a broader sense, this chapter also formulates and presents the hypotheses (2.5) necessary to calculate the correlations. The hypotheses are assigned to the individual items and stand in each case for a, in the figure 9 shown, "connecting line".

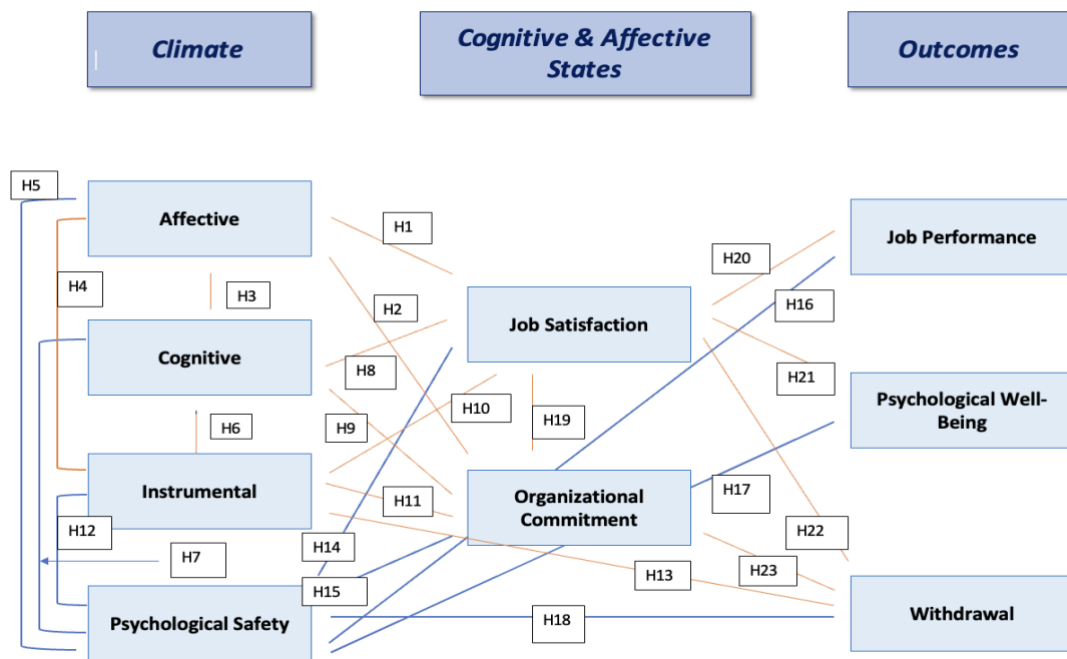


Figure 9: Final Path Model - (Carr, Schmidt, Ford, & DeShon, 2003) & adjusted by the researcher.

Based on the hypotheses which will be used for the calculation, items can function as an independent or dependent variable. The orange lines show the existing hypotheses lines which are already refuted by the literature. The blue lines are the additional lines to analyze the correlations between psychological safety and the other items of the model. Therefore, the research method can be defined as a mono method quantitative study (Saunders, Lewis, & Thornhill, 2015). This is because, only a questionnaire will be used to collect the data.

### 3.2 Research Approach and Design

The author, Amy Edmondson has already stated in her article "Psychological Safety and Learning Behavior in Work Teams" that for a more comprehensive understanding of "behavior in teams", "team structures" and "shared goals", qualitative and quantitative research methods should be used (Edmondson A. C., 1999). However, since this research focuses on generating knowledge about the influence of leadership trainings regarding the awareness of psychological safety on existing teams and the general work climate, the researcher is using an only quantitative research approach. More detailed, the researcher is using an explanatory approach. Following Saunders, Lewis, & Thornhill, "*quantitative research is generally associated with positivism. Especially when used with predetermined and highly structured data collection techniques.*", (Saunders, Lewis, & Thornhill, 2015).

Furthermore, quantitative researcher is in general focusing on testing theories and identifying factors which are influencing various outcomes. Although a quantitative research can have different approaches, the explanatory fits, for this empirical study, the best. This is because an explanatory study approach focuses on establishing causal relationships between different variables (Saunders, Lewis, & Thornhill, 2015). Therefore, the correlations between psychological safety and the other 8 items in the "Model of Moral Climate" will be calculated to make the collected data visible.

To answer the research question, the quantitative part will be done by a questionnaire which will be handed out to the sample (all employees of the project company) 3 times during the given period of 5 months. The first round of the questionnaire will be handed out to the whole workforce by beginning of the period and will be seen measurement point 1 or as start point (Point 0). The second round of the questionnaire will be seen as second measurement point or point 1 and the third round will be seen as third measurement point or point 2. The researcher will also investigate possible differences between the single measurement points. In general, the collected data will be analyzed strictly with the statistical program SPSS.

Ground frame for the questionnaire are the items taken out of the "Model of Moral Climate" and their already developed hypotheses and "psychological safety". Those paths will be used as hypotheses which will show the correlations between the different aspects after analyzing all gathered data which was collected by the quantitative questionnaire. Since the aspect of psychological safety is added as 4<sup>th</sup> factor of the climate facet in the model, new relationships (lines in the model) will be drawn to define extra hypotheses to generate knowledge regarding the correlation between psychological safety and the other items already visualized in the base model of this research and also to answer the developed research question.

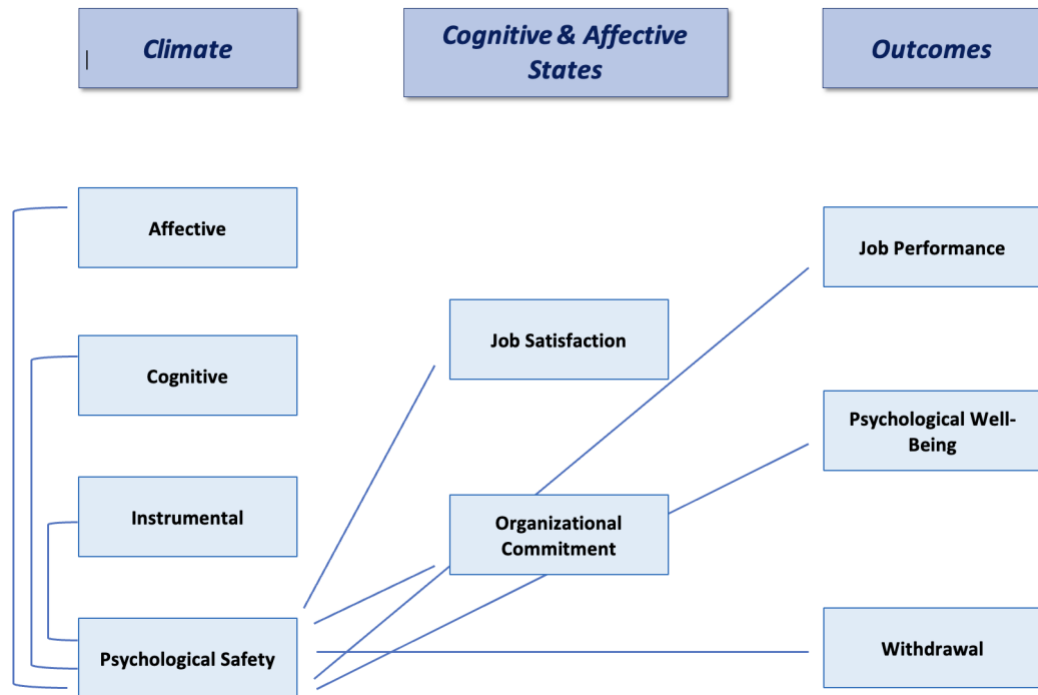


Figure 10: Model of Moral including Psychological Safety and its hypotheses lines – own source.

To even see a difference in psychological safety and the general work climate, 2 leadership trainings to generate awareness regarding this topic will be held during the given period of 5 months. Those leadership trainings will be held up by the researcher itself and include all superiors working in the project company.

The qualitative aspects will be generated and collected in the second leadership training. However, those information's will only be used as further knowledge for the researcher and will not be analyzed directly. The reason for these trainings is to create a room for developing an understanding about psychological safety and how leaders can influence it. Furthermore, it should create room for knowledge sharing and discussions regarding the topic and the superiors' own experiences.

Because this research will only be processed in one example company the whole project can be seen as a pilot project. Therefore, the research strategy of this empirical study will be an experiment.

*“An Experiment finds its roots in the natural science although it features strongly in psychological and social science research. The purpose of an experiment is to study a change in an independent variable (psychological safety) causing a change in the dependent variable (affective climate, cognitive climate, instrumental climate, job*

*satisfaction, organizational commitment, psychological well-being, and withdrawal).*” (Saunders, Lewis, & Thornhill, 2015).

Because of that, the researcher will also face some issues during the data collection process. Some limitations probably will be time, because of the limited time frame and the limited time of the sample because of their and the researchers work schedule. Another issue will be the unpredictable employee change during the given period of 5 months. A more detailed insight regarding any obstacles can be found in the chapter of limitations (6.2).

### **3.3 Sample and Data Collection**

The entirety about which something is to be scientifically stated in a quantitative study is referred to as the "population". Since this empirical study is concerned with the influence of leadership training regarding the awareness of psychological safety on existing teams and the general working atmosphere, a full survey of the population is recommended in this case. However, in this case, all employees of the project company are taken as the target population. Not all employees who work in a seasonal company worldwide. This is justified by the fact that the individual questionnaires were handed out to all employees in the selected company. The term target population refers to the entirety of all study units (employees in the experimental organization) (Döring & Brotz, 2016).

Based on this, the sample is the total collective number of participants to be included in this research, i.e., all employees who worked in the sample company during these 5 months (Stockemer, 2019).

Thus, the population is given to cover all interests in the team. This is also necessary because all managers and department heads participate in the leadership training and thus no control group is used.

In terms of data collection, the response rate is an essential point. In relation to Döring & Brotz, (2016), the response rate is generally between 5% and 40%. However, this always depends on the delivery method of the questionnaire. In the case of postal questionnaires, the return path is longer and therefore the response rate is higher than in the case of directly delivered questionnaires. Online questionnaires are usually in the middle of these percentages. According to Saunders, Lewis, & Thornhill, (2015), questionnaires which are delivered through web or mobile within a company have a response rate of approximately 30% to 50%.

In the case of this empirical study, the following responds rates were calculated at the respective measurement times:

Measurement times	Population (Total Workforce)	Filled out Questionnaires	Responds Rate
Point 0 (Measurement point 1)	60	42	70%
Point 1 (Measurement point 2)	55	38	69%
Point 2 (Measurement point 3)	40	25	62,5%

Table 2: Overview Responds rate of the Questionnaires.

The reason regarding the change in the numbers is explained in the limitations.

In addition, quantitative research includes a set of methods that deal with the systematic study of social phenomena using statistical or numerical data. It therefore involves measurement and assumes that the phenomena under study can be measured. It aims to analyze data trends and relationships and to verify the measurements made (Roger, 2015). The data collected in this empirical study are not taken from any existing datasets or literature and are therefore "primary data". Primary data is data that is collected directly when employees respond to the questionnaire (Döring & Brotz, 2016).

The subchapter "Operationalization" (3.5) illustrates which question of the questionnaire makes which item of the adapted "Model of Morale Climate" measurable. In the end, the data collection should lead to identify the relationships between each aspect and to prove or not the hypotheses established (visualized as arrows/lines in figure 9).

### 3.4 Questionnaire Structure and Pretest

According to Saunders, Lewis, & Thornhill, (2015) “*questionnaires tend to be used for explanatory research*”, like this empirical study does. Moreover, questionnaires can be split up in different types of questionnaires.

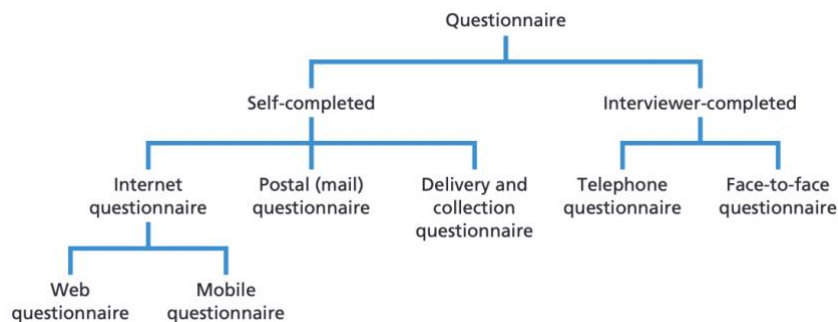


Figure 11: Types of Questionnaires (Saunders, Lewis, & Thornhill, 2015)

This empirical study works with an internet questionnaire which was designed with the tool “unipark.at”. Depending on how the employee prefers to fill out the questions he has the options to do it via his or her phone (mobile questionnaire) or via his or her computer (web questionnaire). Mostly the employees were using the mobile version due to the fact, that the survey link was sent out via WhatsApp. Moreover, due to the number of different nationalities, the questionnaire included three different languages, German English, and Croatian. The availability of all three languages made it easier for every participant to answer the 31 questions which were used in the questionnaire. Those questions were taken out from the literature and to obtain the required data. These questions were partly adapted to the topic of the research. Furthermore, the questions were split up in sections. Those sections were the 9 items taken out of the adapted “Model of Moral Climate”. Furthermore, as already mentioned, a likes scale of 5 (1- I totally disagree / 5- I totally agree) was used to answer all questions. The participants were able to answer every question with one of those 5 possibilities.

As suggested by Döring & Brotz, (2016) the questionnaire was pretested before by 6 individuals prior the handing out to the real participants. “*A Pre-test is conducted to refine the questionnaire in terms of structure, consistency, instruction clarity, question-wording, and design.*” (Egger, 2021).

Following the pretest, minor changes were made to the English, Croatian and German versions of the questionnaire. All three questionnaires had spelling errors and layout irregularities. In the German version of the questionnaire, the wording of the second



question was more clearly adapted to the original English version. The final versions of the questionnaire can be found in the appendix of this paper.

### 3.5 Operationalization/ Measurements

To be able to measure the 9 items (taken out of the self-adapted “Model of Moral Climate”) and their correlation, the researcher uses a questionnaire which includes questions taken out of the literature to be able to generate data for each of those 9 items. Beside psychological safety, all other items were already used in the “Model of Moral Climate” of Carr, Schmidt, Ford, & DeShon, (2003).

However, to make those 9 items measurable, they first must be operationalized.

Operationalization works by identifying specific indicators that will be taken to represent the ideas the researcher is interested in studying (Mauldin, 2015). In this case, it will be the correlation between the 9 different items, which are shown in figure 9.

To measure the aspect CLIMATE, the researcher used the items affective, cognitive, instrumental, and psychological safety. In the following table the author demonstrates which questions were used, out of the literature, to measure every single item.

The participants were asked to answer each question using one option out of the given 5. The likes scale from 1 (totally disagree) to 5 (totally agree) was chosen.

Item	Questions
Climate	
Affective (Reniers, Drake, Corcoran, & Shryane, 2011)	1) I feel supported by my co-workers. 2) I feel supported by my supervisor. 3) The teamwork in my department is very strong.
Cognitive (Reniers, Drake, Corcoran, & Shryane, 2011)	1) Mistakes are used to develop the team performance. 2) The amount of feedback I get from my supervisor is enough for me. 3) I can share my thoughts and doubts openly within my team.
Instrumental (Reniers, Drake, Corcoran, & Shryane, 2011)	1) My supervisor sees me as an equal. 2) My supervisor motivates me to put more effort in my work.

	3) I am ok with the hierarchical structure within my department.
Psychological Safety (Edmondson A. , 1999)	1) If you make a mistake on this team, it is often held against you. 2) Members of this team are able to bring up problems and tough issues. 3) People on this team sometimes reject others for being different. 4) It is safe to take a risk on this team. 5) It is difficult to ask other members of this team for help. 6) No one on this team would deliberately act in a way that undermines my efforts. 7) Working with members of this team, my unique skills and talents are valued and utilized.

Table 3: Overview regarding the Operationalization of the Climate aspects (adjusted Model of Moral)

To measure the aspect COGNITIVE & AFFECTIVE STATES the items job satisfaction and organizational commitment are used.

Cognitive & Affective States	
Job Satisfaction (Khalili & Asmawi, 2012)	1) I am happy with my work position. 2) I am happy with the responsibility I get. 3) I am happy in the department I work in.
Organizational Commitment (Khalili & Asmawi, 2012)	1) I am proud to tell others that I am part of the company. 2) I do feel as a part of the organization. 3) I feel a sense of responsibility towards this company.

Table 4: Overview regarding the Operationalization of the Cognitive & Affective States (adjusted Model of Moral)

To measure the aspect OUTCOMES the items job performance, psychological well-being and withdrawal are used.

Outcomes	
Job Performance (Reniers, Drake, Corcoran, & Shryane, 2011)	1) I do more than is expected of me. 2) I actively look for ways to improve my work performance. 3) I try to help others to improve the job performance within the team.
Psychological Well Being (Sandilya & Shahnawaz, 2018)	1) I feel comfortable within my team. 2) I feel comfortable within the company. 3) I feel comfortable working with my supervisor.
Withdrawal (Khalili & Asmawi, 2012)	1) I consider coming back for another season. 2) I only do the work I must do. 3) I don't want to participate on team events.

Table 5: Overview regarding the Operationalization of the Outcomes (adjusted Model of Moral)

### 3.6 Scale Reliability and Validity

Essentially, validity refers to the appropriateness of the measures used, the accuracy of the analysis of the results, and the generalizability of the results (Saunders, Lewis, & Thornhill, 2015). This section of the empirical research describes the steps taken to ensure the internal reliability and validity of the measurements (Döring & Brotz, 2016).

Reliability and validity are central to assessing the quality of research in the natural sciences and of quantitative research in the social sciences (Saunders, Lewis, & Thornhill, 2015). Scientific quality criteria are characteristics of scientific studies that are used to determine their quality based on scientific theory, which ultimately amounts to an assessment of the study's knowledge gain. An example of a quality criterion is methodological rigor. In quantitative research, methodological rigor has, among other things, the partial aspect of measurement accuracy (reliability) of a standardized measurement instrument (Döring & Brotz, 2016).

Reliability refers to replication and consistency (Saunders, Lewis, & Thornhill, 2015). Quality criteria are initially defined as theoretical concepts. Scientific quality standards are normative definitions of the minimum level of quality indicators that must be met to assume

poor or good scientific quality in this aspect. Quality indicators must meet a minimum level to be considered poor, adequate, or good scientific quality in that aspect (minimum, standard, and maximum standards).

One also speaks of reference values or reference ranges of indicators. Furthermore, in quantitative research, methodological rigor is also described by the term validity. (Döring & Brotz, 2016). To determine the reliability and validity of a measure, calculating Cronbach's alpha is standard (Saunders, Lewis, & Thornhill, 2015).

Therefore, the respective Cronbach's alphas were calculated for each construct and its dimensions, and a factor analysis was conducted. The threshold for adequate Cronbach's alphas should be  $\geq 0.7$  (Saunders, Lewis, & Thornhill, 2015). *“Test re-test of reliability are obtained by correlating data collected with those from the same questionnaire collected under as near equivalent conditions as possible.”* (Saunders, Lewis, & Thornhill, 2015).

	Affective	Cognitive	Instrumental	Psychological Safety	Job Satisfaction	Organizational Commitment	Job Performance	Psychological Well being	Withdrawal
Cronbach's Alpha	0.620	0.617	0,722	0,552	0,894	0,869	0,765	0.663	0,321
Cronbach's Alpha when item omitted	0,729 When item 3 omitted	0.645 when item 3 omitted		0,717 when item 6 omitted			0,804 when item 1 omitted	0,707 when item 2 omitted	0,579 when item 2 omitted

Table 6: Overview Cronbach's Alpha

### 3.7 Data Analysis

*“Quantitative data in a raw form, that is, before these data have been processed and analyzed, convey very little meaning to most people. These data, therefore, need to be processed to make them useful, that is, to turn them into information.”* (Saunders, Lewis, & Thornhill, 2015).

Referring to Saunders, Lewis, & Thornhill, (2015), online questionnaires, automatically enter and save the collected data to a file which can be found in the data-entry software. This file can then be downloaded and uploaded in the analysis software. The data which was gathered through the empirical questionnaire was analyzed with the IBM SPSS software tool. This tool was chosen due to the recommendation of the FH Dornbirn. To be able to analyze the gathered data, the output of the questionnaire was important to SPSS from the tool Unipark, which was also used to create the questionnaire for this research.

Previously, the data were analyzed to calculate the correlation between the different items, so the hypotheses created were used as a guide, and the validity and reliability were assessed. For many applications, correlations are therefore an extremely useful parameter, which is also frequently used in the social sciences (Rasch, Fries, Hofmann, & Naumann, 2014). In further sequence, Cronbach's alphas were calculated to see which questions did not measure the items correctly. In the next step, the descriptive statistics of each item at the respective measurement time point were calculated in order to be able to subsequently calculate the correlations, using Pearson's correlation coefficient. The results of these calculations show whether the relationships between two variables have a negative or positive correlation. In the case of this study, this means that the different items have a positive or negative influence on each other. The basis of these calculations are the hypotheses already developed, which are shown in the research model (Figure 9).

## 4. Findings and Results

This chapter is based on the objective of summarizing the results of this empirical study. In the beginning the descriptive statistics regarding the main study variables are shown (section 4.1). Afterwards, the respective correlations between the variables and therefore the developed hypotheses will be tested, and the results will be presented (section 4.2).

### 4.1 Descriptive Statistics

This subsection presents and interprets detailed findings on the mean score of the individual items and at the various measurement time points. The different colors are visualizing the changes in means.

Meaning of the different colors used in the overview:

Dark blue: highest mean of the item / middle blue: middle mean of the item / Light blue: lowest mean of the item

Items	Point 0	Point 1	Point 2
Affective	3,78	3,77	3,67
Cognitive	3,77	3,54	3,33
Instrumental	3,64	3,34	3,23
Psychological Safety	3,3	3,18	3,26
Job Satisfaction	3,97	3,67	3,71
Organizational Commitment	3,9	3,6	3,8
Job Performance	3,98	3,99	4,09
Psychological Well-Being	3,9	3,67	3,65
Withdrawal	3,0	3,18	3,04

Table 7: Descriptive Statistics 1

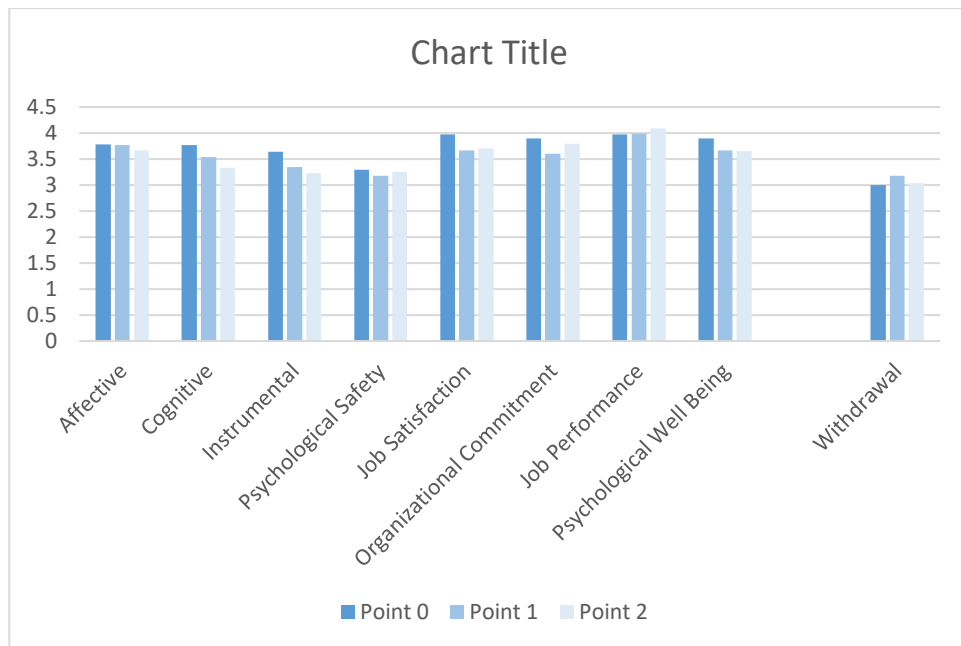
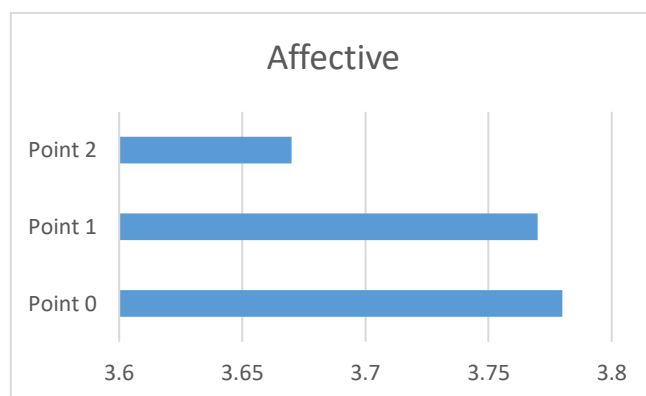


Table 8: Descriptive Statistics 2

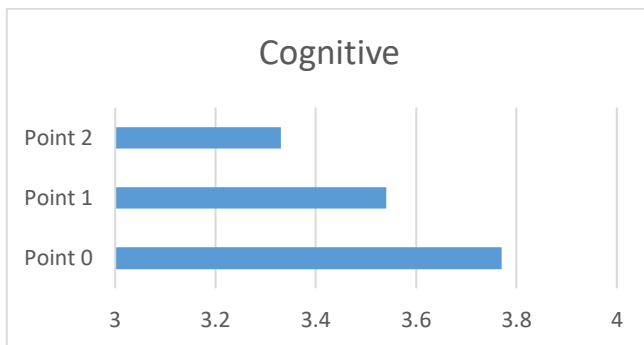
#### Affective:

Comparing the affective climate item with all three measurement points, the data shows that, on average, participants reported that their feeling, towards the affective facet of climate, was highest during the period of the first measurement point. Subsequently, the data shows that the perception of affective climate decreased throughout the 5 months.



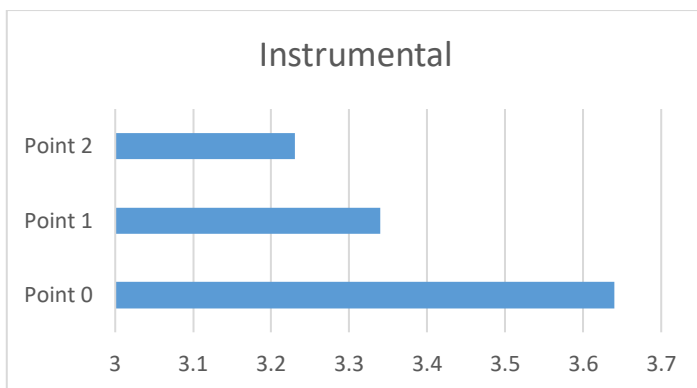
### Cognitive:

Comparing the cognitive climate item with all three measurement points, the data shows that, on average, participants reported that their feeling towards the cognitive facet of climate was highest during the period of the first measurement point. Subsequently, the data shows that the perception of cognitive climate decreased as well throughout the 5 months.



### Instrumental:

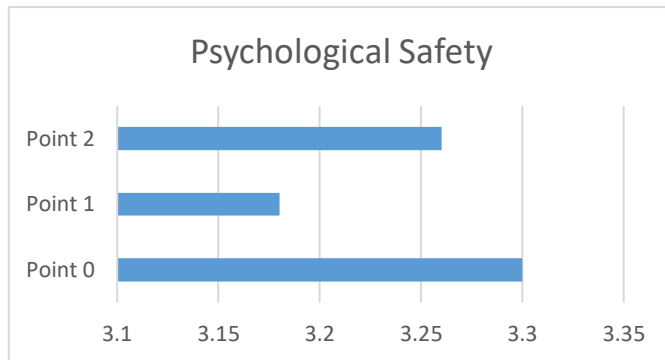
Comparing the instrumental climate item with all three measurement points, the data shows that, on average, participants reported that their feeling towards the instrumental facet of climate was highest during the period of the first round of questionnaires. Subsequently, the data shows that the perception of instrumental climate decreased throughout the 5 months too.





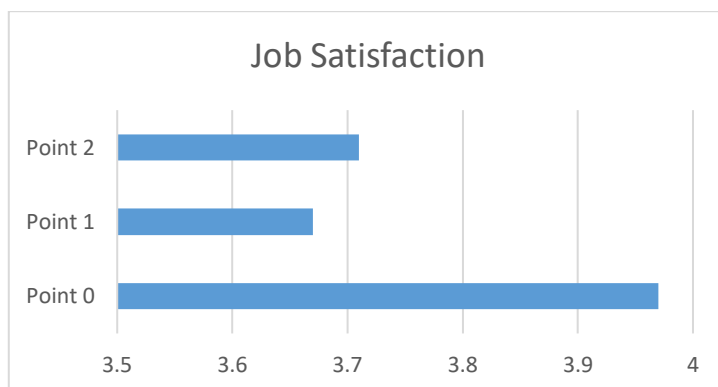
### Psychological Safety:

Comparing psychological safety with all three measurement points, the data shows that, on average, participants reported that their feeling regarding psychological was highest during the period of the first round of questionnaires, then decreased and increased again throughout the data collection period of 5 months.



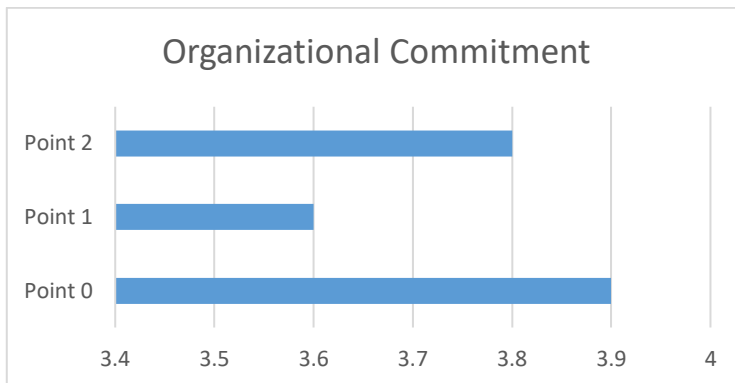
### Job Satisfaction:

Comparing job satisfaction with all three measurement points, the data shows that, on average, participants reported that their feeling regarding their average job satisfaction was highest during the period of the first measurement point. Subsequently, the data shows that the perception of their average job satisfaction went up and down throughout the 5 months of data collection.



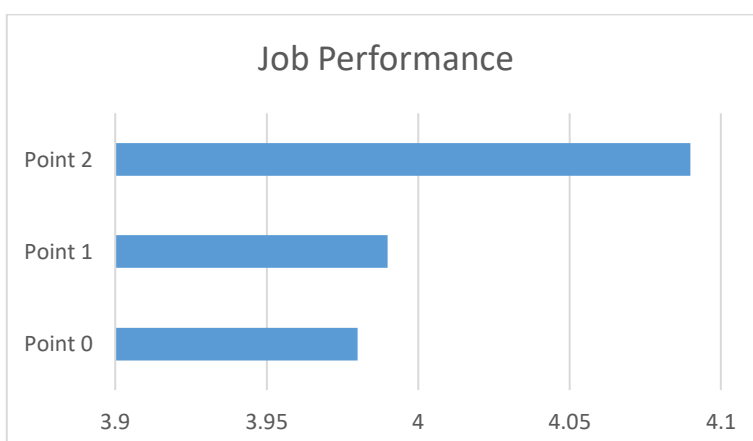
### Organizational Commitment:

Comparing the outcomes of the descriptive statistics of the item organizational commitment, the data shows that, on average, participants reported that their commitment regarding the organization was highest during the period of the first round of questionnaires, then decreased and increased again throughout the third questionnaire round.



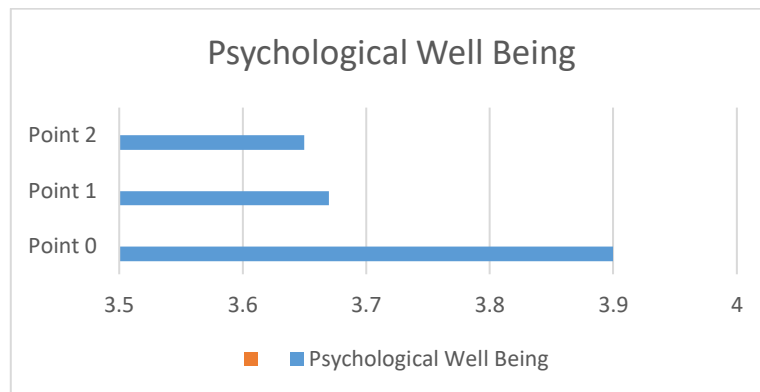
### Job Performance:

Comparing the job performance with all three measurement points on average, the data shows that, the participants reported that their average job performance was highest during the period of the third measurement point. Subsequently, the data shows that job performance increased throughout the 5 months.



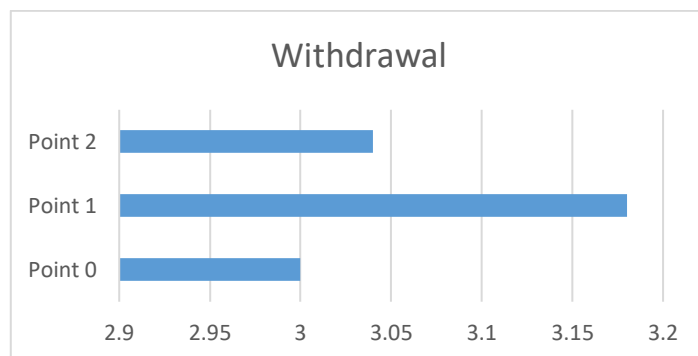
### Psychological Well Being:

Comparing the psychological well-being of the participants with all three measurement points, the data shows that, on average, participants reported that their feeling of psychological well-being was highest during the period of the first measurement period. Subsequently, the data shows that the perception of psychological well-being decreased throughout the 5 months.



### Withdrawal:

Comparing the item “Withdrawal” with all three measurement points, the data shows that, on average, participants reported that their feeling regarding quitting their job was highest during the period of the second round of questionnaires. Subsequently, the data shows that the perception of a withdrawal went up and down throughout the 5 months. These results will be discussed more briefly in the next chapter (chapter 5).



## 4.2 Results of Hypotheses Testing

To test the already developed hypotheses, the correlations were calculated with Pearson's correlation coefficient. This test measures the statistical relationship between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance (Saunders, Lewis, & Thornhill, 2015). The table below, shows the calculated hypotheses referring to all three measurement points which were done throughout the 5 months of data collection. Referring to *Table 9: Scale of Correlation Interpretation* the results of the correlations are interpreted.

Size of Correlation	Interpretation
0.90 to 1.0 (-0.90 to -1.0)	Very high positive (negative) correlation
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to 0.30 (-0.00 to -0.30)	Negligible correlation

Table 9: Scale of Correlation Interpretation

Hypotheses	Point 0 (Measurement point 1)	Point 1 (Measurement point 2)	Point 2 (Measurement point 3)
<b>Affective Climate</b>			
H1: There is a correlation between the affective climate and job satisfaction	Correlation: 0,485 Low positive  Significance: 0,001	Correlation: 0,724 High positive  Significance: < 0,001	Based on Pearson Significance: 0,734  There is no correlation.
H2: There is a correlation between the affective climate and organizational commitment	Correlation: 0,518 Moderate positive  Significance: < 0,001	Correlation: 0,808 High positive  Significance: < 0,001	Based on Pearson Significance: 0,470  There is no correlation.
H3: There is a correlation between the affective climate	Correlation: 0,458 Low positive	Correlation 0,822 High positive	Based on Pearson Significance: 0,186

and the cognitive climate	Significance: 0,003	Significance: < 0,001	There is no correlation
H4: There is a correlation between the affective climate and the instrumental climate	Correlation: 0,367 Low positive Significance: 0,018	Correlation: 0,722 High positive Significance: < 0,001	Based on Pearson Significance: 0,092 There is no correlation
H5: There is a correlation between the affective climate and psychological safety	Correlation: 0,311 Low positive Significance: 0,008	Correlation: 0,444 Low positive Significance: 0,006	Based on Pearson Significance: 0,065 There is no correlation

Table 10: Correlations referring the Item "Affective Climate"

<b>Cognitive Climate</b>			
H6: There is a correlation between the cognitive climate and the instrumental climate	Correlation: 0,691 Moderate positive Significance: < 0,001	Correlation: 0,818 High positive Significance: < 0,001	Correlation: 0,725 High positive Significance: < 0,001
H7: There is a correlation between the cognitive climate and psychological safety	Based on Pearson Significance: 0,170 There is no correlation	Correlation: 0,437 Low positive Significance: 0,007	Correlation: 0,555 Moderate positive Significance: 0,006
H8: There is a correlation between the cognitive climate and job satisfaction	Correlation: 0,629 Moderate positive Significance: < 0,001	Correlation: 0,721 High positive Significance: < 0,001	Correlation: 0,489 Low positive Significance: 0,018
H9: There is a correlation between the cognitive climate and organizational commitment	Correlation: 0,728 High positive Significance: < 0,001	Correlation: 0,799 High positive Significance: < 0,001	Correlation: 0,494 Low positive Significance: 0,017

Table 11: Correlations referring the Item "Cognitive Climate"

<b>Instrumental Climate</b>			
H10: There is a correlation between the instrumental climate and job satisfaction	Correlation: 0,683 Moderate positive  Significance:	Correlation: 0,775 High positive  Significance: < 0,001	Correlation: 0,686 Moderate positive  Significance: < 0,001
H11: There is a correlation between the instrumental climate and organizational commitment	Correlation: 0,561 Moderate positive  Significance: < 0,001	Correlation: 0,772 High positive  Significance: < 0,001	Based on Pearson Significance: 0,091 There is no correlation
H12: There is a correlation between the instrumental climate and psychological safety	Based on Pearson Significance: 0,159 There is no correlation	Based on Pearson Significance: 0,056 There is no correlation.	Correlation: 0,590 Moderate positive  Significance: 0,003
H13: There is a correlation between the instrumental climate and withdrawal	Based on Pearson Significance: 0,229 There is no correlation	Based on Pearson Significance: 0,443 There is no correlation	Based on Pearson Significance: 0,253 There is no correlation

Table 12: Correlations referring the Item "Instrumental Climate"

<b>Psychological Safety</b>			
H14: There is a correlation between psychological safety and job satisfaction	Correlation: 0,380 Low positive  Significance: 0,015	Correlation: 0,508 Moderate positive  Significance: 0,001	Based on Pearson Significance: 0,062 There is no correlation
H15: There is a correlation between psychological safety and organizational commitment	Based on Pearson Significance: 0,254 There is no correlation.	Correlation: 0,428 Low positive  Significance: 0,008	Correlation: 0,619 Moderate positive  Significance: 0,002

H16: There is a correlation between psychological safety and job performance	Based on Pearson Significance: 0,673 There is no correlation	Based on Pearson Significance: 0,373 There is no correlation	Based on Pearson Significance: 0,223 There is no correlation
H17 There is a correlation between psychological safety and psychological well being	Based on Pearson Significance: 0,083 There is no correlation	Correlation: 0,469 Low positive Significance: 0,003	Correlation: 0,566 Moderate positive Significance: 0,005
H18: There is a correlation between psychological safety and withdrawal	Based on Pearson Significance: 0,2 There is no correlation	Based on Pearson Significance: 0,656 There is no correlation	Correlation: -0,456 Low negative Significance: 0,029

Table 13: Correlations referring the Item "Psychological Safety"

Job Satisfaction			
H19: There is a correlation between job satisfaction and organizational commitment	Correlation: 0,698 Moderate positive Significance: < 0,001	Correlation: 0,794 High positive Significance: < 0,001	Based on Pearson Significance: 0,134 There is no correlation
H20: There is a correlation between job satisfaction and job performance	Correlation: 0,458 Low positive Significance: 0,003	Correlation: 0,474 Low positive Significance: 0,003	Based on Pearson Significance: 0,157 There is no correlation
H21: There is a correlation between job satisfaction and psychological well being	Correlation: 0,774 High positive Significance: < 0,001	Correlation: 0,742 High positive Significance: < 0,001	Correlation: 0,776 High positive Significance: < 0,001
H22: There is a correlation between job satisfaction and withdrawal	Based on Pearson Significance: 0,183 There is no correlation	Based on Pearson Significance: 0,096 There is no correlation	Based on Pearson Significance: 0,929 There is no correlation

Table 14: Correlation referring the Item "Job Satisfaction"

Organizational Commitment			
H23: There is a correlation between organizational commitment and withdrawal	Based on Pearson Significance: 0,701  There is no correlation	Correlation: -0,516 Moderate negative  Significance: 0,001	Based on Pearson Significance: 0,732  There is no correlation

Table 15: Correlations referring the Item "Organizational Commitment."

### 4.3 Summarized Results of tested Hypotheses

The hypotheses used for this study were calculated by using Pearson's correlation coefficient (**section 4.2**). The calculations are also based on the already calculated descriptive statistics of all 9 items used in the research model at the various measurement times (**section 4.1**). The hypotheses used in this empirical study were adopted by the author from the existing model "Model of Moral Climate". Nevertheless, the author developed the hypotheses for the item "Psychological Safety" herself. These hypotheses have already been illustrated in chapter 3, subchapter 3.1. Based on the results of the correlations, 3 of the 23 hypotheses must be completely rejected, as the significance is above the value of 0.05 at all three measurement times (4.2). All other hypotheses must either not be rejected at all or only at certain measurement times. Statistical significance indicates how high or low the probability is that the observed or assumed difference does not occur by chance and actually means something. In addition, significance indicates that there is also a difference in the population (all employees working in a seasonal tourism business worldwide) and not just in the sample studied (all employees who worked in the project company in winter 2022/ 2023). However, a significant correlation does not mean that the studied items also have an influence on each other (Döring & Brotz, 2016).

Hypotheses	Findings
H13: There is a correlation between the instrumental climate and withdrawal.	Not supported
H16: There is a correlation between psychological safety and job performance.	Not supported
H22: There is a correlation between job satisfaction and withdrawal.	Not supported

Table 16: Summary of not supported Hypotheses.



The theoretical assumptions for hypothesis development are revisited for a better understanding of the results. In a broader sense, then, the results are on the one hand consistent with and on the other hand contradictory to previous research. In the following, different explanations for these partly contradictory results are given.

It must also be considered that, according to the first survey, the topic of psychological safety and related measures such as feedback discussions, learning from mistakes, etc. were, not actively integrated into everyday life in the project company. Because of this, a first measure to increase psychological safety was integrated into everyday life during the first management training. This measure was a regular feedback discussion between department manager and employee. Exit interviews were also held at the end of the season between management, human resource, and employees, in which the feedback interviews already held were also partially integrated.

## **5. Discussion**

The purpose of this research study was to explore the existing research gap between psychological safety and the existing “Model of Moral Climate”. Another goal was to generate information and knowledge about the impact of leadership trainings regarding the awareness of psychological safety and their influence on existing teams and overall work climate. Thus, it was hypothesized by the author that training aimed at increasing knowledge about psychological safety in a tourism company can increase employee engagement and well-being. Based on the results of the evaluations of the hypotheses and descriptive statistics, these assumptions only partially coincided. Since all questionnaire rounds were completed anonymously, only the descriptive statistics of the different measurement time points can be taken in consideration in this case. These measurement time points illustrate diverse results. In the following chapter, the results are linked to the existing literature and the research findings are interpreted and discussed. In further consequence, the results of this study will be justified.

### **5.1 Effect on Teams and the general Work Climate**

The claim that psychological safety in general should positively influence already existing team structures in a company has already been confirmed by Edmondson (1999). However, such research approaches have been hardly investigated in the tourism industry and in research so far. Also, the researcher was not able to find a similar research design during the literature research and therefore the author assumes that no existing model was used before, to research the interrelationships of the 8 mentioned and used items in the “Model of Moral Climate” and psychological safety.

#### **5.1.1 Hypotheses regarding the Affective Facet of Climate**

The researcher assumes, due to own experience, that due to the general workload, the motivation of the employees fluctuates during a certain period. This assumption can be proven by looking more detailed into the calculations of the descriptive statistics (4.1) but also by looking into the literature. Niermeyer & Seyffert (2011) state in their book, that it is normal that individual motivation fluctuates from time to time and especially when the workload fluctuates too.

This naturally affects the individual teams and their structures. This is also evident in the evaluated data and in the differences in the correlations. Therefore, this empirical study

investigates not only the influence of psychological safety on existing teams but also the influence on the general working climate. On this basis, the author asks how climate factors, job satisfaction, organizational commitment and outcomes are interrelated. If we look at the changes in the evaluation of the descriptive statistics (4.1) at the beginning, we can see that the highest mean values were mostly obtained during the first round of data collection (Point 0). During the second round of data collection (Point 1) and the third round of data collection (Point 2), the descriptive statistics of the 9 items used in the research model, increase, and decrease during the research period of 5 months. Thus, the data does not disprove the researcher's assumption that psychological safety has a positive influence on all other factors of the "Model of Moral Climate".

While looking into the single hypotheses, the first hypotheses tested whether there is a correlation between the affective climate factor and job satisfaction or not. During the calculation the researcher found out, that during the first two measurement points the correlation between these two items increased from a low positive correlation (0,485) to a high positive correlation (0,724). However, the third measurement point (Point 2) shows a significance of 0,734 which means that there is no correlation between the two items anymore because the value of the significance is above 0,05. As already defined in the literature part, an affective facet of climate can be understood as interpersonal and social relations among workers (Carr, Schmidt, Ford, & DeShon, 2003) while job satisfaction can be defined as a combination of psychological, physiological, and environmental circumstances that can lead a person to truthfully say, "I am satisfied with my job." According to this definition, job satisfaction is under the influence of many external factors and remains something internal (Aziri, 2011). The author justifies these results of the data analysis with the conclusion that at the beginning of the season, the majority of the employees were still relatively new and thus the personal connections in the individual teams were still relatively weak.

Therefore, the first team event was held in the period between the first and second questionnaire rounds, which shaped employee bonding. The first intervention on psychological safety was also introduced during this period. In a broader sense, it can also be assumed that employee loyalty to each other increases as employees get to know each other better. Therefore, it can be conclude, that internal events, can lead to a more positive climate within teams and company (Sodexo, 2019). The lack of correlation at measurement time 3 can be explained by the departure of many employees. As a result, many teams became smaller and therefore team-structures and the allover company atmosphere changed. Furthermore, the second hypotheses examined the link between the affective facete and the organizational commitment of the employees towards the project company.

Referring to the already researched literature, organizational commitment can be defined as an emotional commitment to one's work and a willingness to give of one's best at work. It is how people feel about their position and responsibilities that determines their levels of energy, ownership, commitment and initiative (Peters, 2019). The results of the calculations show a moderate correlation during the first measurement point (0,518) and a high correlation during the second measurement point (0,808). However, the calculated significance is as well above 0,05 and therefore no correlation, for the used sample, exists. The following hypotheses regarding the correlations between the affective facet of climate and cognitive facet of climate, instrumental facet of climate and psychological safety have all similar correlation outcomes (stated in 4.2). Those hypotheses show all a low or moderate positive correlation during the first measurement point, a high positive correlation during the second measurement point and a significance above 0,05 during the third measurement point, which means as well, that there was no correlation between the mentioned items.

The literature defines the cognitive facet of climate as self or individuals' involvement in work activities and instrumental facet of climate as employee's individual task involvement (Carr, Schmidt, Ford, & DeShon, 2003). Psychological safety is shortly defined as room to be able to take interpersonal risks, learn from mistakes and to speak openly about individual doubts and thoughts (Edmondson A. C., Psychological safety and Learning Behavior in work teams, 1999). While looking into the hypotheses regarding the three facets of climate, it is also interesting to see, that all three items have the same development in the correlations and descriptive statistics. Reasons for the development of the results of the hypothesis regarding the correlation between the affective climate and the cognitive climate (point 0: 0.458/ point 1: 0.822/ point 2: no correlation) can be, for example, the first increasing personal connections in the team but also the increasing work motivation at the beginning of the season to go the extra mile for the company. The negative development of the correlation during the third measurement point could also be related to the fluctuating work motivation during the research period (Niermeyer & Seyffert, 2011).

### **5.1.2 Hypotheses regarding the Cognitive Facet of Climate**

Subsequently, in this section of the empirical work, the researcher also deals with the results of the hypotheses regarding the cognitive climate. The analysis of the data shows that only one hypothesis had to be rejected during the first measurement period. This hypothesis is the assumption that there is a connection between the cognitive climate and psychological

safety (Point 0: no correlation/ Point 1: 0,437/ Point 2: 0,555). As already mentioned before, the cognitive facet of climate can be understood as self or individual involvement in work and psychological safety can be defined as room for interpersonal risk taking and speaking up (Carr, Schmidt, Ford, & DeShon, 2003) (Edmondson A. C., Psychological safety and Learning Behavior in work teams, 1999). Based on the outcomes, the researcher is able to see a positive development during the given time period of 5 months. It can be seen, that at the beginning of the research, no correlation appears which can be explained by the missing intervention regarding psychological safety. However, during the last two measurement time points, the correlations increased from a low positive correlation to a moderate positive correlation. In this case, the researcher can assume that the leadership trainings on psychological safety in relation to cognitive climate and the following interventions could have a positive effect on the population (all employees in all seasonal operations). However, the other hypotheses show mainly a negative course of the correlations during the research period. Both hypotheses, one examining the relationship between the cognitive facet of climate and job satisfaction and the other examining the relationship between the cognitive facet of climate and organizational commitment, show an increase in correlation during the first and second measurement points and a decrease during the second and third measurement points. Job satisfaction represents a set of factors that can create a sense of satisfaction and develop a factor of attachment and commitment between employee and employer (Aziri, 2011).

As mentioned earlier, the cognitive facet of climate is primarily related to self or individual engagement in work activities (Carr, Schmidt, Ford, & DeShon, 2003). Thus, these results can again be justified with the assumption of work motivation turnover due to the increase in workload (Niermeyer & Seyffert, 2011). An increase of workload often also mends an increase of stress and therefore can lead to a decrease in job satisfaction and employee's engagement or organizational commitment (Javed, Jalees, Herani, & Rolle, 2020). Univ. Prof. Dr. Glaser & Mag. Molnar (2015) state in their article regarding psychological stress at work that workers who have a high work intensity at certain times more often report perceiving more stress than people with lower work intensity. Likewise, people with less responsibility and thus less freedom to make decisions report lower satisfaction and less commitment at work than people with more responsibility. A similar picture emerges with regard to job recognition and social support from work colleagues. On average, employees with a higher level of recognition experience are less frequently affected by physical and mental health complaints. Such situations naturally also influence team structures and the team climate but also the general work climate in a company.

### **5.1.3 Hypotheses regarding the Instrumental Facet of Climate**

Referring to the literature, the instrumental facet of climate can be defined as the inclusion employee involvement in tasks or the completion of tasks in the organization. Dimensions that fall under the instrumental facet include performance, hierarchy, structure, and extrinsic reward (Carr, Schmidt, Ford, & DeShon, 2003). The hypotheses regarding the correlation between the instrumental facet of climate and job satisfaction shows a moderate positive correlation during the first measurement point (0,683), a high positive correlation during the second measurement point (0,775) and a moderate positive correlation during the third measurement point (0,686). The correlation results between those two items show that the leadership trainings regarding the awareness of psychological safety and its interventions had a moreover positive influence on them. Therefore, the author concludes that regular feedback sessions between employees and supervisors have a general positive impact not only on the team structures, the work climate and the sample selected, for this empirical study (all employees of the project company in winter 2022/ 2023) but also on the population (all employees who are employed in a seasonal operation worldwide).

The following hypotheses investigated the possible correlations between the instrumental facet of climate and the organizational commitment. Organizational commitment was defined by the author as the extent to which employees are enthusiastic about their work and feel connected to the company. This is an indicator of how willing someone is to commit to their work (Edmondson A. C., *The fearless organization: Creating psychological safety in the workplace for learning, innivation, and growth*, 2019). The results of the data analysis shows that the correaltions between the first and second measurement point increased from a moderate positive correlation (0,561) to a high positive correlation (0,772). However while analysing the data from the third measuerment point the result of the significance is above 0,05 and therefore, a correlation between the instrumental facet of climate and organizational climate is not confirmed and therefore no correlation exists. Another hypotheses regarding the instrumental facet of climate investigated the correlation between the instrumenatal facet of climate and psychological safety. The outcomes showed that only during the third measurement point of the data collection, a correlation between those two items appeard (0,590). This means, that the significance during the first two measurement points is above 0,05 (those outcomes of the significance can be seen in section 4.2). For this reason, the researcher assumes that measures affecting psychological safety must be implemented over the long term in order to see more accurate findings about possible influences. Furthermore, based on the significance results at all three measurement time points for the hypothesis "There is a relationship between instrumental climate and

withdrawal," this hypothesis could be completely rejected (significance point 0: 0.229/ significance point 1: 0.443/ significance point 2: 0.253).

#### **5.1.4 Hypotheses regarding Psychological Safety**

As mentioned in the literature, psychological safety refers to the feeling of being able to take interpersonal risks or having anxiety in an environment to express one's opinions, ideas, or concerns without fear of negative consequences. It is about people feeling safe to share their thoughts and feelings openly without being afraid of criticism or rejection. Psychological safety is an important factor in effective communication, collaboration and innovation in teams and organizations. It enables people to reach their full potential and grow (Edmondson A. , 1999) (Edmondson A. C., The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth, 2019). One of the hypotheses related to psychological safety examined whether or not there is a correlation between psychological safety and job satisfaction. In the case of this study, the results show a low positive correlation (0.380) at the beginning of the study and a moderate positive correlation (0.508) in the middle of the study. However, no correlation was detected in the last data collection (significance: 0.062).

While looking into the following hypotheses, the outcomes are just the opposite. Here the first measurement point was calculated with a significance above 0,05 (significance: 0,254) and therefore no correlation can be proven. During the second and the third measurement point, correlations appeared and also increased. The values of the hypotheses "There is a correlation between psychological safety and organizational commitment." can be seen in the table (4.2). Although the relationship between psychological safety and job satisfaction decreases during the research period and the relationship between psychological safety and organizational commitment increases, it can be concluded that the interventions have an impact on the employees, the team structures and the general working climate to a certain degree. The difference in the development of the correlations, the researcher explains with the reason of the fluctuating work motivation. As already explained, it is normal that work motivation can decrease and increase during a period of time (Niermeyer & Seyffert, 2011). Referring to the table in subchapter 4.2, hypotheses nr. 16 must be rejected completely due to the outcomes of the significance at all three measurement points (point 0: significance: 0,673/ point 1: significance: 0,373/ point 1: significance: 0,223). It can be seen that all three outcomes are above the value 0,05. This means, that in the case of this empirical study, no correlation between psychological safety and job performance could

have been found. The last two hypotheses regarding psychological safety, had a deeper look into the correlations between psychological safety and psychological well-being and psychological safety and withdrawal. While psychological well-being can be defined as “a domain-specific form which reflects positive or negative evaluations of one’s work.” (Wang, Sinclair, & Tetrick, 2012), withdrawal can be defined as someone’s disengagement regarding their tasks and work environment (Ciciora, 2022). Both hypotheses had to be rejected during the first measurement point due to a significance above 0,05. While the hypothesis, that investigated the relationship regarding psychological well-being was tested at measurement time two with a significance of 0,003, the hypothesis concerning withdrawal had to be rejected again. However, during the third measurement point three, both hypotheses could be accepted due to their significance.

#### **5.1.5 Hypotheses regarding Job Satisfaction**

Job satisfaction refers to the level of contentment or fulfillment an individual experiences in their job. It encompasses various factors such as the nature of the work, the work environment, relationships with colleagues and superiors, opportunities for growth and development, and the overall alignment between personal values and organizational goals. When someone is satisfied with their job, they tend to feel more motivated, engaged, and productive. However, job satisfaction can vary from person to person and can be influenced by a range of factors. It is important for individuals to assess their own needs and priorities to determine what contributes to their overall job satisfaction (Aziri, 2011). Next, the hypotheses regarding the used item “job satisfaction” were analyzed.

During these analyses the researcher had to face the fact, that the hypotheses regarding the correlation between job satisfaction and withdrawal had to be rejected at all three measurement points. The results of this analysis can be seen in the table “Correlations referring Job Satisfaction” (4.2). All other hypotheses showed more or less a negative development during the research time of 5 months. Those fluctuations in positive and negative outcomes can be explained by firstly the change in individual work-motivation (Niermeyer & Seyffert, 2011), secondly with the constant change within the workforce which also has a great impact on the team structures, but also on the activities during the research period.



### 5.1.6 Hypotheses regarding Organizational Commitment

The last hypothesis of this empirical study explores the correlation between the organizational commitment and withdrawal. Referring to the results of the data analysis, the hypotheses it not supported during the first and third measurement point due to the value of the significance which was both times above 0,05 (Point 0: significance: 0,701/ Point 1: significance: 0,732). The researcher assumes that those values can be reasoned with the explanation of the lack of organizational commitment at the beginning of the season and at the end of the season. Since many new employees worked during the research period, they had no commitment to the company since it was their first time there. In addition, many employees were exhausted at the end of the season due to the increased workload during the research period and therefore lost their commitment again. Only the second measurement point shows a moderate negative correlation (- 0,516). *“A negative correlation can be understood as a relationship between two variables in which one variable increases as the other decreases.”* (Picardo, 2022). Therefore, as soon as organizational commitment increases withdrawal in the same time decreases.

The literature also states that organizational commitment and withdrawal have in general a negative correlation towards each other. This is because the more commitment an employee feels regarding its workplace the less reasons to withdraw occur. Withdrawal behavior can be understood in different ways. In this case, we distinguish between absenteeism and the intention to fluctuate. Most often, work attitudes are associated with employee absenteeism. Since exit behaviors such as absenteeism and turnover reflect invisible attitudes such as job dissatisfaction and low organizational commitment, higher job satisfaction and organizational commitments are associated with lower absenteeism. It is hypothesized that both job satisfaction and organizational commitment have negative effects on absenteeism. Nevertheless, the absenteeism of an already highly satisfied employee will not decrease significantly as commitment increases. On the other hand, the absenteeism of a less satisfied employee will decrease as commitment improves. Similarly, the absenteeism of a highly committed employee will not decrease to the same extent as the absenteeism of a less committed employee as a result of increasing commitment. Finally, job satisfaction and organizational commitment are two work attitudes that are closely related, which means that there is some overlap between the attitudes regarding work when it comes to the effects on disengagement (Falkenburg & Schyns, 2007). These work attitudes can, of course, also have an impact on the general working atmosphere and on the team itself. If employees are more or less demotivated, the general atmosphere within a team or even within a company can develop negatively. This can be explained by

the fact that employees also motivate each other with their attitudes toward the workplace (Graham, 2014).

## 6. Conclusion

By summarizing the approach of this empirical study, highlighting its limitations, drawing implications for further research approaches, and giving suggestions for research and practice, this final chapter summarizes this scholarly work on the topic of psychological safety.

### 6.1 Summary

Psychological safety is a team phenomenon. It's not about individuals having certain beliefs about individual other team members, but about acting as a team and getting the best out of it (Edmondson AC, 2019). In this empirical study, the impact of leadership training on existing teams and on the general working atmosphere in a company was examined. This study is based on a summary of well-founded literature and a quantitative data analysis based on an already existing model from the literature. To investigate the identified research gap, the researcher added the item "psychological safety" to the base model of this empirical study. The necessary data was collected by using a questionnaire and statistically evaluated the collected data by using SPSS. In order to determine connections between the individual items, hypotheses were formed before the data was evaluated. Those hypotheses are visualized with lines in the research design of this paper. All over, this research was developed with the aim of answering the general research question.

- *How are leadership trainings regarding the awareness of psychological safety effecting existing teams and the work climate in an organization?*

Since, the results of the descriptive statistics and the results of the correlations of the individual hypotheses are not always confirmed or show a positive change, it can be assumed that psychological safety in general does not always have a positive impact on existing teams and the general work climate. Therefore, the author of this paper concludes that measures and trainings to increase psychological safety in the workplace can only have a positive effect if the general environment has the right attitude towards it.

The researcher also draws the conclusion, that with the end of the season, the general motivation and energy of the employees in the project operation, which is a tourist seasonal operation, decreases and therefore the impact on the individual items used in the research model decreases mostly.

## **6.2 Limitations**

Due to the limited time, this thesis is only generating first hints on the topic and no concrete results. This is also because the research could have only been done in one company. During this pilot project, the author also researches without a control group. Therefore, it is not possible to show differences between teams with leadership trainings and teams without leadership trainings.

Another limitation which will be faced in this study is the limitation of people. Because this research was processed during a certain amount of time and with the employees of the winter season 2022/ 2023, the data is based on their opinion. Therefore, the outcome would be probably different if the research would have been done with another workforce, to another time and within another company. Nevertheless, this research design can be used for any other company, industry, or time period, due to the fact that psychological safety is based on teams and not on another aspect.

Another aspect is the change within the workforce. Since the project is carried out in a seasonal business, it must always be expected that certain employees who were still employed in the first round of the questionnaire, for example, will no longer be employed during the second round or the third round of the questionnaire. Therefore, the changes of the responds rates can be reasoned. Due to the chance on staff, the questionnaires were completely anonymous without any personal data to see how a specific employee develops a feeling towards psychological safety though out the whole time period of data collection. Which leads to another limitation of this paper.

Due to the fact, that the questionnaires were completely anonymous, it was not possible for the researcher to have a deeper understanding of how specific individuals changed their attitude or opinion regarding any item which was examined with the handed-out questionnaire. Due to that, the researcher was only able to compare the general correlations of every item at all three-measurement time points to gain knowledge about the effect of leadership trainings regarding the awareness of psychological safety and its influence on teams and the general work climate.

### **6.3 Implications for Research and Practice**

This study focuses on gathering evidence on how leadership trainings on psychological safety impacts teams and the overall work climate. Due to the working background of the author, the study was conducted in a seasonal tourism business in Vorarlberg. Subsequently, it was also a personal concern of the author to conduct her research in this area, as there has been a great shortage of skilled workers for a long time and this has increased further due to the pandemic (Beckmann & Klaus, 2022). Because of this, the author believes it is important to retain existing employees and increase employee loyalty through measures to promote mental safety in the workplace. Since this research project can be applied to any company and any industry, other companies can adopt the findings already gained and, if interested, also carry out the research design themselves to query and analyze the current status of their own employees in order to incorporate further steps and measures. Based on this, the author of this empirical research is of the opinion that this research project and this topic can be very helpful in practice to generate employee satisfaction and employee loyalty.

In terms of impact in research, the author believes that she has discovered a gap in research and has also been able to partially fill it. As already described in the limitations, the statements can be different due to other employees, other operations, other industries, or other time periods. However, as already mentioned, this research project can be used again and again and everywhere. Because of this, the author believes she has made a positive impact on research with this research design and his findings.

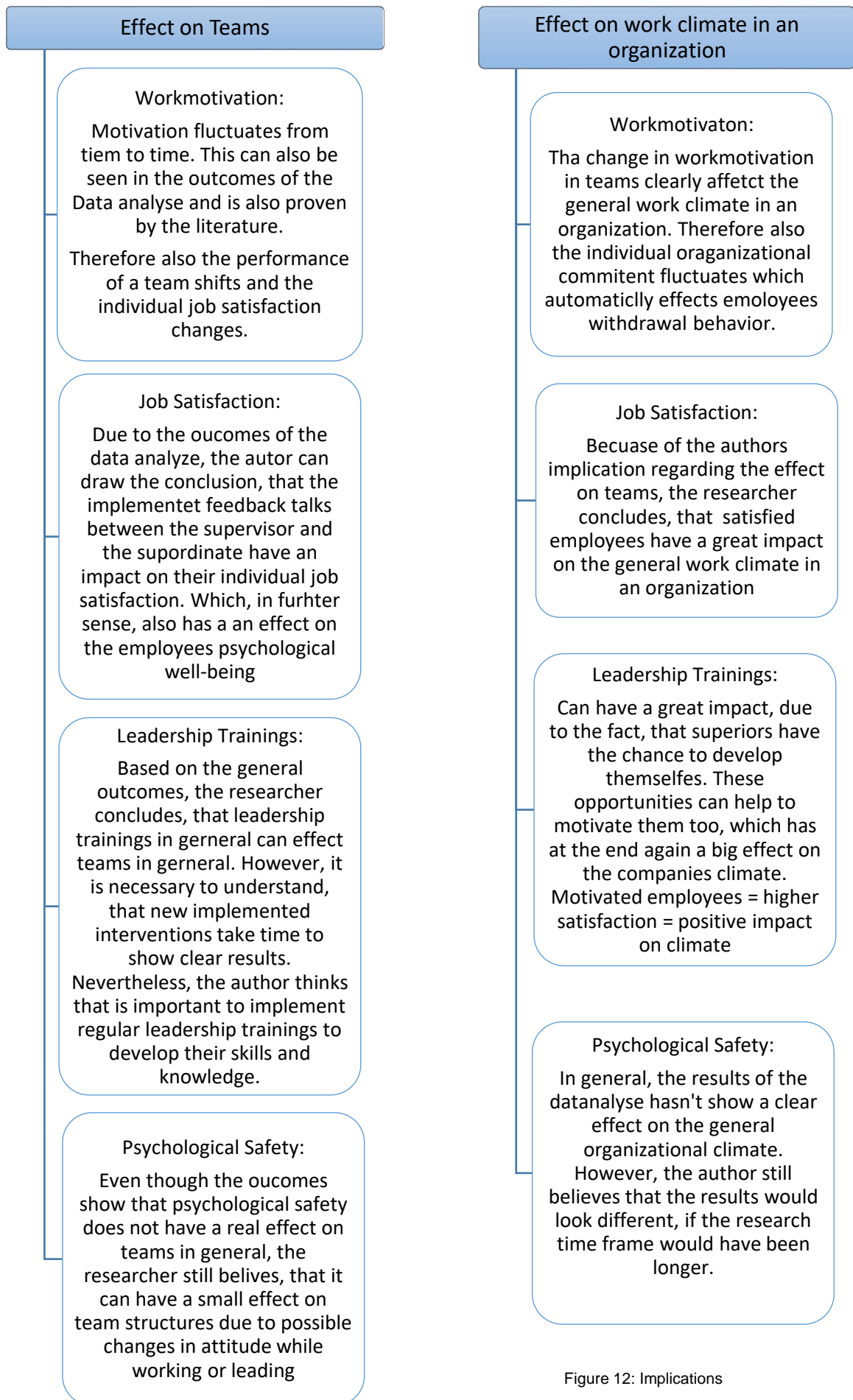


Figure 12: Implications

## **6.4 Avenues for Future Research**

The insights and findings gained from this empirical work open up a wide range of possibilities for future research or research projects. The author recommends the following research options based on the study already conducted. First, the researcher believes that a subsequent research project that takes a closer look at the individual teams and also works with control groups to be able to explore possible differences between the respective groups would be useful. Building on this, the researcher recommends a further research approach aimed at finding out which leadership styles have the greatest positive or negative influence on psychological safety in general, but also on its development within a company or team. Following on from this, the researcher of this thesis proposes a research project that examines the individual teams with a respective control group and also provides insights into the respective leadership style of the respective department head and what impact this has on the development of psychological safety in the individual departments, but also within the company. Another research direction would be an empirical study that takes a close look at each team within the research company and determines which zone these teams are in (Figure 1, page 6) and what impact this has on employee satisfaction and retention.

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## Appendix

### Quantitative Questionnaire (Englisch, Deutsch, Kroatisch)

1 – I totally disagree

5 – I totally agree



**Affective** (Reniers, Drake, Corcoran, & Shryane, 2011)

I feel supported by my co-workers  
Ich fühle mich von meinen Arbeitskollegen unterstützt  
Osjećam podršku svojih suradnika

I feel supported by my supervisor.  
Ich fühle mich von meinem Abteilungsleiter unterstützt.  
Osjećam podršku nadređenog.

The teamwork in my department is very strong.  
Der Zusammenhalt in meinem Team ist sehr stark.  
Timski rad u mom odjelu je vrlo jak.

**Cognitive** (Reniers, Drake, Corcoran, & Shryane, 2011)

Mistakes are used to develop the team performance.  
Fehler werden zur Weiterentwicklung der Teamleistung genutzt.  
Pogreške se koriste za razvoj timske izvedbe.

The amount of feedback I get from my supervisor is enough for me.  
Ich erhalte genügend Feedback von meinem Abteilungsleiter.  
Količina povratnih informacija koju dobijem od svog nadređenog mi je dovoljna.

I can share my thoughts and doubts openly within my team.  
Ich kann meine Gedanken und Sorgen offen mit meinem Team kommunizieren.  
Mogu otvoreno podijeliti svoje misli i nedoumice unutar svog tima.

**Instrumental** (Reniers, Drake, Corcoran, & Shryane, 2011)

My supervisor sees me as an equal.  
Mein Abteilungsleiter sieht mich als gleichwertig an.  
Moj nadređeni me vidi kao ravnopravnog.

My supervisor motivates me to put more effort in my work.  
Mein Abteilungsleiter motiviert mich, die Extrameile zu gehen.  
Moj nadređeni me motivira da uložim više truda u svoj posao.

I am ok with the hierarchical structure within my department.  
Ich bin mit der hierarchischen Struktur in meiner Abteilung zufrieden.  
Slažem se s hijerarhijskom strukturom unutar mog odjela.

**Psychological safety** (Edmondson A. , 1999)

If you make a mistake on this team, it is often held against you.  
Fehler werden in meinem Team oft gegen die jeweilige Person verwendet.  
Ako pogriješite u ovom timu, to vam se često zamjera.

Members of this team are able to bring up problems and tough issues.  
In meinem Team ist es möglich, Probleme und Schwierigkeiten offen anzusprechen.  
Članovi ovog tima sposobni su iznijeti probleme i teška pitanja.

People on this team sometimes reject others for being different.  
In meinem Team werden Menschen von anderen abgelehnt, weil sie anders sind. (Kultur, Handicap, ...)  
Ljudi u ovom timu ponekad odbijaju druge jer su drugačiji.

It is safe to take a risk on this team.  
In meinem Team ist es möglich, eigenverantwortlich zu agieren.  
Sigurno je riskirati u ovom timu.

It is difficult to ask other members of this team for help.  
Es ist schwierig in meinem Team um Hilfe zu bitten.  
Teško je zamoliti druge članove ovog tima za pomoć.

No one on this team would deliberately act in a way that undermines my efforts.  
Niemand in meinem Team würde absichtlich in einer Weise handeln, die meine Bemühungen negativ beeinflussen.  
Nitko u ovom timu ne bi se namjerno ponašao na način koji potkopava moje napore.

Working with members of this team, my unique skills and talents are valued and utilized.  
In meinem Team werden meine individuellen Fähigkeiten und Talente geschätzt und genutzt.  
U radu s članovima ovog tima cijene se i koriste moje jedinstvene vještine i talenti.

#### **Job Satisfaction** (Khalili & Asmawi, 2012)

I am happy with my work position.  
Mit meiner Arbeitsposition bin ich zufrieden.  
Zadovoljan sam svojim radnim mjestom.

I am happy with the responsibility I get.  
Ich mit meinem Verantwortungsbereich zufrieden.  
Zadovoljan sam odgovornošću koju preuzimam.

I am happy in the department I work in.  
Die Abteilung, in der ich arbeite, macht mir Spaß.  
Sretan sam u odjelu u kojem radim.

#### **Organizational Commitment** (Khalili & Asmawi, 2012)

I am proud to tell others that I am part of the company.  
Ich bin stolz darauf, Teil dieses Unternehmens zu sein.  
Ponosan sam što mogu reći drugima da sam dio tvrtke.

I do feel as a part of the organization.  
Ich fühle mich als Teil dieses Unternehmens.  
Osjećam se kao dio organizacije.

I feel a sense of responsibility towards this company.  
Ich fühle mich diesem Unternehmen gegenüber in gewisser Weise verantwortlich.  
Osjećam odgovornost prema ovoj tvrtki.

**Job Performance** (Reniers, Drake, Corcoran, & Shryane, 2011)

I do more than is expected of me.  
Ich tue mehr, als von mir erwartet wird.  
Radim više nego što se od mene očekuje.

I actively look for ways to improve my work performance.  
Ich suche aktiv nach Möglichkeiten, meine Arbeitsleistung zu verbessern.  
Aktivno tražim načine da poboljšam svoj radni učinak.

I try to help others to improve the job performance within the team.  
Ich versuche, anderen zu helfen, um die Arbeitsleistung meines Teams im Allgemeinen zu verbessern.  
Pokušavam pomoći drugima da poboljšaju radnu izvedbu unutar tima.

**Psychological Well being** (Sandilya & Shahnawaz, 2018)

I feel comfortable within my team.  
In meinem Team fühle ich mich wohl.  
Osjećam se ugodno unutar svog tima.

I feel comfortable within the company.  
Ich fühle mich in diesem Unternehmen wohl.  
Osjećam se ugodno unutar tvrtke.

I feel comfortable working with my supervisor.  
Bei der Zusammenarbeit mit meinem Vorgesetzten fühle ich wohl.  
Osjećam se ugodno radeći sa svojim nadređenim.

**Withdrawal** (Khalili & Asmawi, 2012)

I consider coming back for another season.  
Ich könnte mir eine weitere Saison in diesem Unternehmen vorstellen.  
Razmišljam o povratku još jednu sezonu.

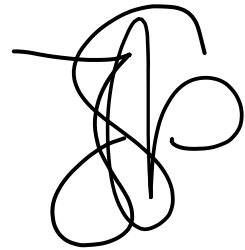
I only do the work I must do.  
Ich mache nur, was ich tun muss.  
Radim samo ono što moram.

I don't want to participate on team events.  
Bei Teamevents möchte ich nicht dabei sein.  
Ne želim sudjelovati na timskim događajima.

## Statement of Affirmation

I hereby declare that all parts of this thesis were exclusively prepared by me, without using resources other than those stated above. The thoughts taken directly or indirectly from external sources are appropriately annotated. This thesis or parts of it were not previously submitted to any other academic institution and have not yet been published.

signature of the author

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the top.

Dornbirn, 1<sup>st</sup> of July, 2023

Julia Speckle, BA