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Breaking Barriers in Communication to Ensure Accessible Safety Communication in Multicultural and Multilingual Organizations

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TIIVISTELMÄ:
Saavutettava turvallisuusviestintä mahdollistaa ja edistää yhdenvertaisen tiedonsaannin turvallisuuteen liittyvistä keskeisistä tiedoista huomioimalla ihmisten eriävät taustat ja lähtökohdat. Työyhteisöjen monimuotoistuessa selkeän ja ymmärrettävän turvallisuusviestinnän tarve ja merkitys korostuu entisestään, joka toimii tässä tutkimuksessa tarkastelukohteena. Tarkoituksena on selvittää turvallisuusviestinnän saavutettavuutta monikulttuurisissa ja -kielellisissä organisaatioissa. Tähän liittyen tarkastellaan viestintään liittyvien esteiden muodostumista ja miten nämä esteet voivat hankaloittaa turvallisuusviestinnän sisäistämistä sekä lopulta saavutettavan turvallisuusviestinnän toteutumista. Tutkimus on toteutettu toimeksiantona If Vahinkovakuutukselle.

Tutkimuksen teoriaosuudessa vastataan tutkimuksen ensimmäiseen tavoitteeseen, jossa tunnistetaan keskeiset viestinnän esteet, jotka heikentävät turvallisuuteen liittyvien tietojen ymmärrettävyyttä ja saavutettavuutta monikulttuurisissa ja -kielellisissä työpaikoissa. Tähän luotu teoreettinen viitekehys toimii tutkimuksen empiirisen osan perustana. Tutkimuksen empiirinen aineisto koostuu yhdeksästä teemahaastattelusta. Haastattelut toteutettiin 8.5.–25.6.2025 välisenä aikana ja niistä koostuva aineisto analysoitiin sisällönanalyysin menetelmin.

Tutkimuksen toiseen tavoitteeseen liittyen empiirinen aineisto paljasti, kuinka viestinnän esteet ovat vahvasti sidoksissa siihen, miten työntekijät tulkitsevat tuvallisuusviestinnän ymmärrettävyyden ja lopulta sen soveltamisen omassa työympäristössä. Näin ollen haastatteluaineistosta havaittiin kaksi ulottuvuutta, jotka voidaan liittää kulttuuriperäiseen viestintäesteeseen: työntekijöiden eriävät käsitykset riskeistä ja turvallisuudesta ja asenteet ja motivaatio turvallisuusohjeita ja niiden noudattamista kohtaan. Aineistosta tunnistettiin myös kieleen pohjautuva viestintäeste, johon on sidoksissa kolme keskeistä ulottuvuutta: kielitaito, turvallisuusviestinnän monimutkainen käsitteistö sekä monikielinen viestintä ja epävirallliset käännökset. Nämä esteet eivät ainoastaan ole yhteydessä olennaisen tiedon omaksumiseen, mutta myötävaikuttavat samalla selkeän, saavutettavan viestinnän toteutumiseen.

Kolmas tutkimustavoite täsmentyi empiirisen aineiston analyysissä, jossa tarkasteltiin yritysten hyödyntämiä viestintäkäytäntöjä saavutettavan turvallisuusviestinnän toteuttamisessa sekä näiden pohjalta luotuja parannusehdotelmia. Haastatteluaineiston pohjalta havaittiin, kuinka turvallisuusviestinnän saavutettavuuden merkityksellisyys tunnistetaan yrityksissä, mutta nykyiset epäyhtenäiset käytännöt johtavat siihen, että viestintä ei tavoita kaikkia työntekijäryhmiä tasavertaisesti. Havaittujen haasteiden pohjalta luoduissa ehdotelmissa korostui käännösten yhdenmukaistaminen, esihenkilöiden viestintätaitojen kehittäminen, ja multimodaalisen viestinnän edistäminen. Saavutettavan turvallisuusviestinnän toteutuminen edellyttää siis ennen kaikkea nykyisten käytäntöjen kriittistä tarkastelua sekä johdonmukaista lähestymistapaa organisaation kaikilla tasoilla, jossa huomioidaan kielellinen ja kulttuurinen moninaisuus.

AVAINSANAT: Safety Communication, Communication Barriers, Multicultural, Multilingual

Contents

1 Introduction 5
1.1 The Purpose and Objectives of the Thesis 8
1.2 Research Approach of the Thesis 9
1.3 Structure of the Thesis 10
1.4 Key Concepts of the Thesis 11
2 Understanding Barriers to Safety Communication 13
2.1 Key Communication Barriers to Safety Communication 14
2.1.1 Linguistic Barrier 15
2.1.2 Cultural Barrier 18
2.1.3 Cognitive Barrier 23
2.1.4 Expert Knowledge and Language Barrier 25
2.2 Accessibility in Safety Communication 26
2.3 Approaches to Enhancing the Accessibility of Safety Communication 32
2.3.1 Easy Language 32
2.3.2 Multimodal Communication 35
2.4 Summary of the Theoretical Framework 39
3 Methodology 43
3.1 Research and Methodological Approach 43
3.2 Data Collection Method 44
3.3 Research Data 46
3.4 Data Analysis 48
3.5 Reliability and Validity of the Study 49
3.6 Utilization of Artificial Intelligence in the Thesis 52
4 Findings of the Study 53
4.1 Cultural Factors Influencing the Understanding and Interpretation of Safety Communication 53
4.1.1 Employees' Varying Perceptions of Risk and Safety 56
4.1.2 Attitudes and Motivation Regarding Safety and Compliance 58
4.2 Language-related Barriers to Safety Communication 59
4.2.1 Language Proficiency as a Barrier to Understanding Safety Instructions 61
4.2.2 Safety Communication's Complex Terminology as a Barrier 63

4.2.3 Multilingual Communication and Informal Translations as Linguistic Barrier 64
4.3 Current Organizational Practices in Ensuring Accessibility Safety Communication 66
4.3.1 The Use of Visual Aids and Easy Language to Support Accessibility in Safety Communication 68
4.3.2 Supervisors Role in Facilitating Accessible Safety Communication 70
4.4 Suggestions to Improve Accessibility of Safety Communication in Multicultural and Multilingual Context 73
4.4.1 Standardizing Translations of Safety Communication to Ensure Accessibility 73
4.4.2 Strengthening Supervisors' Cross-Cultural and Linguistic Communication Skills 74
4.4.3 Reinforcing Multimodal Communication by Videos to Reduce Comprehension Gaps 75
5 Conclusions 77
5.1 Summary and the Most Important Findings 77
5.2 Managerial Implications 82
5.3 Limitations of the Study and Future Research Suggestions 84
References 85
Appendices 93
Appendix 1. Semi-Structured Interview Questions 93

1 Introduction

As industries across all sectors are becoming more diverse, many organizations are encountering new challenges among employees, such as cultural misunderstandings, language barriers, and differing perceptions of workplace safety (Augustin et al., 2024). Given the rising number of foreign workers in the global workforce, these concerns are especially relevant. According to the International Labor Organization (2024), international migrants made up 4.7% of the global workforce in 2022. These 167.8 million individuals contribute notably to national economies worldwide by working in sectors such as manufacturing, domestic work, healthcare, agriculture, and construction. Furthermore, the United Nations International Migrant Stock data set shows that between 2000 and 2020, the number of individuals residing abroad from their country of birth grew by nearly 110 million, with employment being the primary reason for migration (United Nations, 2025).

The increasing diversity within companies has been linked with both positive and negative outcomes. One undesirable outcome is the cultural and contextual differences that extend beyond language and make communication more complex (Ahmed et al., 2018). Barriers related to cultural and linguistic diversity may significantly affect the delivery and understanding of safety protocols, potentially leading to the emergence of risks or incidents. In today's globalized business environment, such communication challenges are frequently rooted in cultural and linguistic differences. These barriers can occur in various settings, particularly in multinational teams of workers (Augustin et al., 2024). When individuals encounter a barrier that limits access to information, the message is inaccessible (Maaß & Rink, 2024). Consequently, communication must be tailored to the needs of the diverse target audience to ensure accessibility while considering the potential barriers.

Injuries and accidents occurring in the workplace remain a prevalent global issue, with approximately one million individuals experiencing work-related injuries or illnesses

daily (McKillop et al., 2016). According to the International Organization of Migration (IOM), numerous global studies indicate that migrant workers are more vulnerable to injuries, diseases, and deadly accidents in comparison to their native colleagues (Tara, 2021, p. 3). This increased vulnerability is attributed to migrants' employment in unstable or uncontrolled positions or performing under pressure to meet goals while neglecting safety protocols. In addition to these factors, linguistic and cultural barriers related to communication and comprehension further heighten their risk. These barriers not only affect employees' understanding of safety protocols but may also limit access to safety training and reduce their willingness to communicate workplace safety concerns.

Preventing accidents before they occur requires a strong safety culture that communicates unsafe conditions or potentially dangerous circumstances to employees in advance (Kumar et al., 2024, p. 461). What truly makes a workplace safe is the profound commitment, communication, and active support of both employees and employers toward safety (Zara et al., 2023). Thus, maintaining a safe working environment requires, first and foremost, the continuous development and implementation of communication strategies that focus on accident prevention and risk reduction (Czernecka, 2024).

While there are multiple factors contributing to the occurrence of accidents, studies show that poor communication plays a significant role in many industrial incidents (Kumar et al., 2024, p. 460). According to Lindhout et al. (2012), poor communication, together with misunderstandings and a lack of knowledge about the risks associated with linguistic barriers, can increase the likelihood of incidents, particularly in multilingual workplaces. Several studies also show that communication barriers heighten the risk of incidents when employees lack comprehension or fail to correctly apply organizational policies and safety instructions (De Jesus-Rivas et al., 2016). Despite the linguistic diversity of the workforce, work and safety instructions, along with risk-related communication, are typically exclusively in English or the local language (Lindhout et al., 2012). This creates challenges for individuals who do not speak these languages as their first

language, have limited language skills, or face other difficulties interpreting instructions in different formats.

To enhance the occupational safety and health of all employees, recent global efforts have reinforced the global commitments toward this goal (Tara, 2021, p. 1). For example, objective 6 of the Global Compact for Safe, Orderly, and Regular Migration (GCM) is committed to safe working conditions for migrants (United Nations, 2018, p. 13). Additionally, for the first time, this vulnerability of migrant workers is emphasized in Target 8.8 of the 2030 Agenda for Sustainable Development by the United Nations, which urges the protection of labor rights and improvements of safe and secure working environments (United Nations, 2015, p. 20). Moreover, the SFS-ISO 45001 standard provides a framework for organizations seeking to enhance their safety management and culture to prevent accidents (ISO, 2018). The standard offers several advantages, including the integration of health and safety considerations into daily management and operations. It promotes risk awareness and safe working practices among employees, with a strong focus on the significance of communication and the flow of information.

Studies on safety communication, communication barriers, and the accessibility of communication have all gained increasing attention due to growing workplace diversity and recent legislative and regulatory developments. Yet, while these topics have been studied as interrelated concepts, relatively few studies have examined them as a fully integrated whole. As Bahrain et al. (2023) state, the lack of integrated research and limited comprehension of various communication barriers reveals a research gap. The emphasis on previous research has primarily focused on comprehensibility and perceptibility of communication, while accessibility has frequently been overlooked as a key factor of effective communication (Maaß & Rink, 2024).

Most research merely outlines various approaches to safety communication without exploring how communication barriers influence the implementation of accessible communication concepts or how these principles are applied in practice. This further illustrates the necessity of conducting more holistic research within the context of

accessible safety communication. Furthermore, previous research has mainly focused on communication barriers in industrial and healthcare contexts, often overlooking other fields such as information work. As a result, a broader perspective on the subject has been lacking. As accessible communication has gained greater social attention in recent years, there is a growing need for communication research that reflects the diversity of the changing and evolving society.

This thesis brings together the concepts of communication barriers and accessibility in the context of safety communication within multicultural and multilingual organizations. A more comprehensive analysis of communication barriers in this setting can provide valuable insights into the cultural, linguistic, and cognitive factors that may hinder accessible communication (Bahrain et al., 2023; Maaß & Rink, 2024). As workforce diversity grows, ensuring accessible safety communication while recognizing the associated barriers becomes increasingly crucial, further underscoring the need for research on this area.

1.1 The Purpose and Objectives of the Thesis

The purpose of the study is to *examine the accessibility of safety communication in multicultural and multilingual organizations*. Specifically, the research seeks to analyze what factors influence employees' ability to comprehend and apply safety-related messages**.** By identifying key communication barriers and evaluating communication methods from the perspectives of accessibility, this study also aims to enhance the accessibility of safety communication in diverse work environments. Consequently, to help reach the purpose of the study, the thesis aims to answer the following objectives.

The first objective of the thesis is to *identify key communication barriers that hinder the comprehension and accessibility of safety-related information in multicultural and multilingual workplaces.* This objective will be achieved by reviewing existing academic literature on the topic, providing an extensive understanding of communication barriers,

the concept of accessible communication, and the methods by which it can be implemented.

The second objective of the thesis is to *examine how these communication barriers influence employees' understanding and application of safety communication in diverse organizational environments.* To achieve this objective, an empirical study is conducted using thematic interviews, and the theoretical framework is used to analyze the data.

The third objective of the thesis is to *analyze the existing practices companies use to ensure accessible safety communication, and to propose improvements to enhance the inclusivity of safety communication based on the findings.* By combining insights gathered from the theoretical framework and empirical findings, this objective will be accomplished.

Through theoretical analysis and empirical data from interviews, this thesis examines how to improve safety communication practices by analyzing how effectively employees comprehend communication methods. Furthermore, the study focuses on analyzing the research topic within the context of organizations operating in Finland. More specifically, the organizations involved in the study are selected based on their multicultural and multilingual characteristics, excluding the focus on possible branches outside Finland.

1.2 Research Approach of the Thesis

This study utilizes a qualitative research approach. Qualitative study is particularly concerned with discovering how individuals see, feel, think, and understand the phenomena being studied (Puusa et al., 2020, Introduction). Furthermore, the objective of qualitative research is to comprehend the phenomenon being studied from the viewpoint of the people being studied. This research approach chosen for the thesis is supported by the nature of qualitative research, and according to the aim of the study. The research method chosen to be used in this study is thematic interviews. Chapter three of the

thesis will later provide a more detailed discussion of the methodological choices of the research.

1.3 Structure of the Thesis

This thesis is divided into five main chapters, as shown in Figure 1. The first chapter is an introduction, providing the reader with an overview of the subject and outlining a research gap, together with earlier findings from previous studies. In the sub-chapters, the aim, objectives, research approach, and key concepts of the study are presented.

The second chapter covers the theoretical framework of the thesis. More specifically, in this chapter, the main theoretical concepts of the study – key communication barriers and accessible communication – are systematically explored and carefully defined. This chapter will address the study's first objective.

The third chapter focuses on the research methodology, data collection method, and the methods used to analyze the collected data. The chapter concludes with a reliability evaluation of the study. The fourth chapter of the thesis presents the empirical findings of the study, highlighting the insights obtained through research and data analysis. This chapter also addresses the second and third objectives of the study.

Ultimately, the fifth and final chapter presents a summary of the key findings, addressing each research question and analyzing the results in relation to the theoretical framework and data analysis. Furthermore, this chapter outlines the managerial implications, limitations of the study, and future research suggestions.

Figure 1. Structure of the thesis.

1.4 Key Concepts of the Thesis

Safety Communication is a broad term that refers to all communication efforts aimed at informing employees about possible risks and incidents, reporting ways to mitigate them, and sharing accident information (Czernecka, 2024). It includes clear communication at all organizational levels, open discussions about safety concerns, and providing feedback to further reinforce safe behavior – all aimed at enhancing safety procedures and preventing potential incidents (Alsamadani et al., 2012).

Communication Barriers prevent information from being exchanged effectively, leading to misunderstandings, confusion, and potential conflict in the workplace (Bahrain et al., 2023). These barriers include factors that hinder individuals from receiving, processing, or comprehending communication. Moreover, they interfere with the efficient flow of information and make it difficult to accurately interpret the intended meaning of a message.

Multicultural refers to a variety of cultures, particularly the customs of individuals from many ethnic and religious backgrounds (Cambridge University Press, n.d.). This encompasses individuals who adopt a wide variety of customs and values and who belong to a community, organization, city, or other groups. In organizational terms, the

multicultural organization acknowledges and values the diversity of individuals while actively promoting their engagement and inclusion (McGrane, 2016).

Multilingual is described as a setting in which different languages interact, especially in organizations and institutions (Lindhout et al., 2012). Multilingual individuals frequently engage with more than one language in personal and professional settings (Augustin et al., 2024).

2 Understanding Barriers to Safety Communication

According to a thorough definition, safety is a fundamental element regarded as essential to prevent dangerous incidents at a manageable level and prevent damage to employees, others, or the environment (Digmayer & Jakobs, 2022). As industries constantly evolve, it is expected that there will be additional risks that could result in dangerous situations. Without an organizational culture that is conscious about safety, the different approaches established for risk prevention remain ineffective. Employees collectively maintain a frequently constant and structured concept recognized as a company safety culture. On this basis, emerging as a core feature of safety culture is the way in which safety is communicated.

Communication serves as the foundation for the vast majority of multinational organizational activities, supporting the development, management, leadership, and dissolution of organizations, functioning as an essential component for information sharing (Szkudlarek et al., 2020). Additionally, workplace injuries and self-reported safe working practices are significantly impacted by the quality of communication (Cartwright & Cooper, 2009, p. 48). By contrast, ineffective communication has been identified as an important cause of accidents.

Digmayer and Jakobs (2022) present that for safety communication to be effective, it must highlight an assortment of crucial subjects, such as everyday and non-routine tasks, along with associated risks from tools, materials, infrastructure, and working conditions. Moreover, they remind us that it is required to cover previous or future possible incidents, potential risks in particular work areas, such as equipment or installations, and any upcoming or existing operational changes. Subsequently, to decrease these potential incidents and to further enhance workplace safety, effective communication is vital to maintain a secure working environment for a diverse range of employees (Zara et al., 2023). Crucially, achieving such effectiveness in safety communication requires, first and foremost, ensuring that communication is accessible for everyone.

According to Zara et al. (2023), one of the most significant obstacles to ensuring safety within organizations is communication barriers. More particularly, these barriers relating to communication arise in multicultural and multilingual organizations as these settings bring together employees from a variety of cultural and national backgrounds (Tenzer et al., 2021). Not paying attention, lack of knowledge, and limited information, often resulting from communication barriers, are common factors that negatively affect safety communication (Zara et al., 2023). They also note that the impact of these obstacles is heightened substantially by varying perspectives, prejudices, selective listening, and poor reporting of official information.

Communication barriers can be particularly harmful when multiple barriers occur simultaneously, as this further complicates the reader's ability to comprehend a message (Maaß & Rink, 2024). Individuals both with and without special needs may find it difficult or even impossible to obtain information as a result of these barriers, depending on their nature. This frequently results in miscommunications or an inability to understand. Barriers do not, nevertheless, inevitably completely prevent communication in an absolute sense. They operate as a changing notion, with various levels of limitations. Depending on how the barriers appear, certain types of barriers may progressively lessen accessibility and limit communication to varying degrees.

The next sub-chapters will address and examine the key communication barriers prevalent in communication. Additionally, after this, the next sub-chapter will explore the accessibility of communication and how its different forms may be implemented in safety communication. Subsequently, the reviewed theoretical concepts are synthesized into the theoretical framework of this research in the fifth and last sub-chapter.

2.1 Key Communication Barriers to Safety Communication

Though reducing incident risks and establishing a safer workplace remain the main objectives of safety communication, ensuring its accessibility presents several

challenges within a multicultural and multilingual context. Drawing from findings from academic literature, the following sub-chapters will examine identified communication barriers in detail, illustrating the specific ways in which they impact diverse workplace environments.

Types of Communication Barriers	Definition	Reference
Cultural Barrier	Interpersonal biases, stereotyping, and differences in ethnic and cultural backgrounds affect effective forms of communication and increase the risk of miscommunication	(Guirdham, 1999, pp. 158)
Linguistic Barrier	Difficulties with speech, reading, and writing preventing individuals speaking different languages from communicating effectively with one another	(Lindhout et al., 2012; Al-Mutairi, 2024)
Cognitive Barrier	Challenges in concentrating, planning, the perception of space, or comprehending written, and spoken communication disrupting how information is received and understood	(Hyppönen, 2022)
Expert Knowledge and Language Barrier	Specialized terminology, complex concepts and information overload limit understanding and accessibility to communication	(Maaß & Rink, 2024)

Figure 2. Barriers related to communication.

2.1.1 Linguistic Barrier

Language barriers hinder effective communication between individuals who speak different languages, thereby reducing employees' productivity and general job performance (Al-Mutairi, 2024; Bahrain et al., 2023). When individuals or groups do not speak the same language or vary significantly in their level of competence, linguistic communication barriers arise. Language-related issues include difficulties with speech, reading, and writing, which may further be linked to a variety of factors, including social and occupational aspects, with multilingual environments adding an additional

dimension (Lindhout et al., 2012). Such challenges are caused by a variety of factors, including employees' incapacity to comprehend the primary language used within the workplace, illiteracy, poor reading comprehension, or inadequately written job instructions (Lindhout et al., 2019). Subsequently, the barriers arising from linguistic obstacles can create considerable challenges in communication, increasing the possibility of misunderstandings (Kumar, 2023).

As workforce diversity increases, the number of individuals speaking various languages and experiencing other cultures in their everyday interactions is also increasing, potentially reaching a point where no single common language is shared by all the members of an organization (Lindhout et al., 2012; Augustin et al., 2024). They further state that this factor may contribute to the occurrence of language-related barriers. A common issue emerging, especially among foreign workers, is the issue regarding language, which can result in misunderstandings and confusion regarding work-related tasks (De Jesus-Rivas et al., 2016).

It has been argued that linguistic diversity may hinder productive performance and interaction, particularly due to low language proficiency (Lauring & Selver, 2009). Moreover, speaking a language other than one's native tongue has been thought to be more reserved and subtle. The employees of an organization may communicate more effectively and clearly when they share the same language, which in turn improves mutual comprehension. However, implementing this might be challenging, since although immigrants may learn the local language with time, many find it challenging or impossible to achieve the same level as native employees (Lindhout et al., 2012). Concerning short-term migrant employees, fully acquiring the local language due to moving to a different country for work might not always be possible or feasible.

Generally, language tends to be perceived as a cultural characteristic rather than being a separate topic (Lindhout et al., 2012). Tenzer et al. (2021) assert that language is beyond a neutral medium for communication – it is deeply connected to culture and

therefore requires an approach that takes into account distinctive cultural characteristics. When viewed from a cultural perspective, language is extensively embedded in cultural settings, emphasizing how they are interconnected. Culture shapes the utilization of language by influencing speakers' language expression, such as the words used, the sense of formality, and the style of communication (Kenesei & Stier, 2017). In addition, listeners employ their cultural background as a basis for processing and interpreting this information (Tenzer et al., 2021). Kensei and Stied (2017) note that the use of language also goes deeper than being simply a communication method – it is a representation of a person's background and sense of self.

According to the latest studies, the most significant risks to multilingual workplaces include unclear communication, misinterpretation, and an inability to pay enough attention to language-based hazards (Lindhout et al., 2012). Organizations with a diverse workforce, consisting of multiple ethnic groups with different languages and cultural identities, might encounter it challenging to maintain efficient internal management communication because of language barriers. Within these organizations, employees from immigrant backgrounds frequently form social groups, using these informal communities to continue using their native language and ethnic backgrounds.

The severity of the risk situations and incidents associated with language-related problems can be demonstrated by concrete examples. An incident affecting 600 workers being exposed to dangerous substances and fumes occurred at a food processing plant in Arkansas in 2011 due to a language barrier (De Jesus-Rivas et al., 2016). As a consequence of an employee’s inability to read the English label on the substance bottles, the non-native English speaker accidentally combined two wrong cleaning chemicals, causing a risky situation. An accident with even beyond severe consequences, where 262 people lost their lives, is the Marcinelle mining disaster in 1956 (Lindhout et al., 2019). A misunderstanding about the placement of a coal cart in the elevator at this multilingual workplace. The cart was caught as the elevator was moving, harming oil pipes and power cables, resulting in a fire. The miners ended up trapped underground when the

elevator collapsed. These represent only a limited sample of the many accidents where language barriers have led to difficulties in communication comprehension and contributed as causal factors (Lindhout et al., 2019). Hence, to mitigate linguistic challenges and ensure effective and safe organizational performance, clear communication between individuals from different cultural backgrounds is essential (Jenifer & Raman, 2015).

As stated by Lindhout et al. (2019), if linguistic barriers in communication were addressed as separate safety concerns, they may be reduced with greater efficiency. They further argue that since such problems are not fully acknowledged or understood, the current approach for reducing accidents stemming from language barriers remains ineffective. Similar to examining the reasons behind general accidents in the workplace, examining incidents linked to language barriers is necessary to enhance accident prevention. As these previous studies underline, linguistic barriers must be recognized and addressed more proactively to establish more secure and inclusive workplaces. Hence, this implies ensuring safety communication that reaches all employees, regardless of language proficiency.

2.1.2 Cultural Barrier

''Culture is communication and communication is culture'' (Hall, 1959, p. 218).

Culture is a dynamic and constantly shifting notion, and as Ting-Toomey and Dorjee (2019, p. 13) state, its definition varies according to individuals' interpretation. In a broader sense, culture can be described as the collection of values, beliefs, perceptions, and shared experiences that define a particular social group (Kouabenan, 2009). Additionally, culture influences the way individuals communicate their thoughts and feelings, along with how they perceive and understand the behaviors or sayings of other individuals (Bust et al., 2008). Given this constant interplay between culture and communication, it is crucial to have a thorough understanding of the underlying factors affecting their relationship.

As workplaces are becoming more diverse and interacting with other cultures is becoming a norm, it is essential to acknowledge that individuals from different backgrounds have varying attitudes and perceptions regarding communication (Lauring & Selmer, 2009). These cultural divergences can contribute to arising differences in understanding messages and eventually result in misinterpretations, which may lead to challenges regarding health and safety in workplaces (Bust et al., 2008). Specifically for multicultural organizations where the organizational culture consists of employees from an extensive range of different cultural backgrounds, it is crucial to identify and address the specialized cultural communication barriers to improve the internal dynamics within the organization (Lauring & Selmer, 2009; Jenifer & Raman, 2015).

Kouabenan (2009) presents how an employee's awareness of safety and their intuitive comprehension of risks and accidents are impacted by their cultural framework, which is unique to each individual. These cultural differences contribute to how safety policies are adopted and executed, affecting how individuals evaluate their risk exposure, choose actions regarding safe behavior, and respond to safety communication. As a result, building a strong safety culture within the company may become particularly challenging due to these rising cultural communication barriers. Not only can deeply rooted cultural views influence how individuals perceive and respond to hazards, but they also influence what risks are considered reasonable, inevitable, or even beneficial.

At the core of cross-cultural communication is the verbal and nonverbal exchange of opinions, emotions, and views between individuals from various cultural origins (Lifintsev et al., 2025). Adherence to social standards, manners, and rules, as well as other forms of communication without words, such as facial expressions, are all examples of non-verbal communication (Hurn & Tomalin, 2013, p. 2). Understanding and managing the complexity of cross-cultural communication is becoming more crucial as its role in everyday interactions is constantly increasing (Lifintsev et al., 2025). Later in the discussion, it is underlined that companies with diverse employees have the responsibility to foster a work environment that promotes effective cross-cultural communication. Many businesses have indeed realized this need and are actively looking for ways

to improve cross-cultural comprehension and overcome the culturally embedded barriers to communication.

Guirdham (1999, p. 158) presents how two main generic factors can be pinpointed as the causes of misunderstandings when individuals from different cultures communicate. The first includes the general, broadly recognized issues that are particularly noticeable in multicultural environments, such as stereotyping and interpersonal biases. Conversely, the varying cultural, ethnic, or other identity-related origins have a direct impact on communication styles and attitudes, presenting the second factor. She further states how different cultural backgrounds affect how individuals and groups interact, which sometimes leads to miscommunications or disagreements.

Individual perceptions of moral views, opinions, and perspectives also shape expectations and communication styles, which can further contribute to disagreements between individuals from different cultures (Guirdham, 1999, p. 158). Moreover, different communication-related norms and speech patterns are shaped by cultural principles, which can further contribute to misunderstandings. Additionally, group interactions and possible disagreements may be impacted by an individual's speech patterns or nonverbal cues, particularly if these are interpreted to be characteristic of a specific cultural group.

Jenifer & Raman (2015) define cross-cultural communication barriers among workplaces to be *misunderstanding, norms and roles, beliefs and values, stereotypes, and ethnocentrism*. These factors constitute the comprehensive set of communication barriers that can be linked to culture. Jenifer & Raman (2015) further discuss how working in multicultural organizations can be challenging due to miscommunication and differing perspectives, which may reduce efficiency on both an individual and organizational level. Therefore, they highlight that organizations should proactively find ways to increase mutual understanding and clarity to improve communication in culturally diverse settings.

Misunderstandings are seen as a significant barrier to communication in multicultural environments and are often caused by differences in cultural values and beliefs (Jenifer & Raman, 2015). Individual differences in *values, beliefs*, and *views*, on the other hand, shape expectations and communication styles, particularly concerning conversational customs and speech patterns (Guirdham, 1999, p. 158). Ting-Toomey & Dorjee (2019, p. 14) further discuss how the fundamental cultural values and beliefs influence the way individuals think, observe, react, and perform in communication situations. Such culturally influenced viewpoints may result in a variety of communication styles in multicultural and multilingual workplaces, raising the possibility of misunderstandings among workers (Jenifer & Raman, 2015).

Norms are grounded in culturally defined rules that define which behaviors are considered appropriate and acceptable (Jenifer & Raman, 2015). Every individual and culture has their unique norms and principles for behavior, often assuming others will behave likewise. In multicultural workplaces, challenges may occur if individuals find it difficult to identify or adhere to norms that differ from their own.

The tendency to compare other groups' behaviors to those of one's own culture is referred to as *ethnocentrism* (Jenifer & Raman, 2015). Such a perspective frequently causes individuals to subconsciously think that their cultural customs are somewhat exceptional from those of others. This frequently results in evaluating individuals from other cultures according to one's cultural norms and considering their actions abnormal or somewhat out of the ordinary (Ting-Toomey & Dorjee, 2019, p. 12). An ethnocentric mindset in communication situations might therefore make individuals from other cultures feel left out or undervalued.

Making generalized assumptions or judgments about other individuals based on limited knowledge is referred to as *stereotyping* (Jenifer & Raman, 2015). Relying on this incomplete or inaccurate information can result in poor decision-making in cultural interactions. These prejudices, which are frequently the result of unfamiliarity,

considerably contribute to miscommunications and differing views within different groups of people.

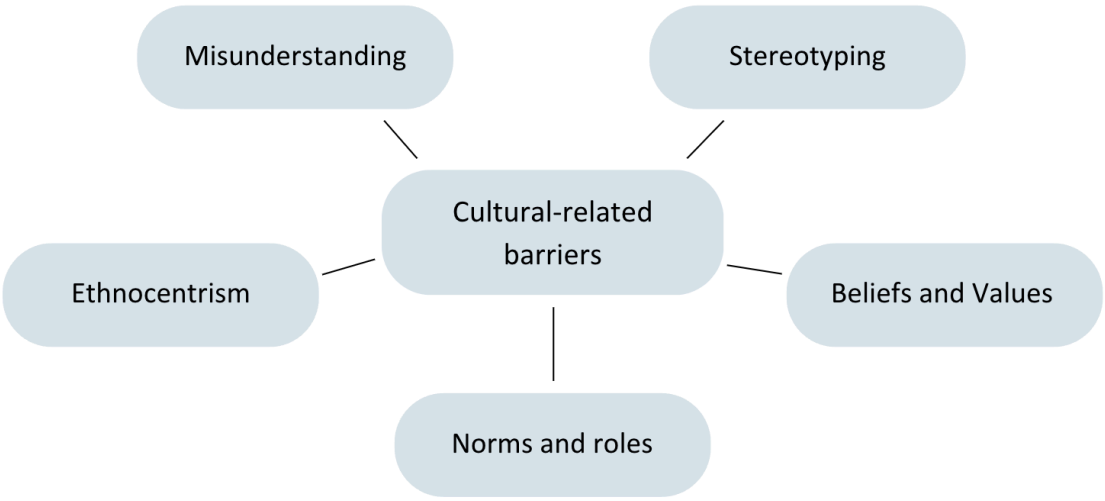

Figure 3. Cross-cultural barriers in workplace (Adapted from Jenifer & Raman, 2015).

When discussing communication barriers rooted in culture, Hall's (Broeder, 2021) theoretical framework provides valuable insights for understanding how communication differs across cultural contexts. According to the framework, effective communication in cross-cultural working environments requires the ability to shift between high-context and low-context communication styles. The theory of communication through the concept of context serves as the basis of the framework. Considered a type of preconditioning process, contexting enables individuals to process information effectively, which lessens cognitive overload and optimizes their capacity to comprehend large amounts of complex data (Kittler et al., 2011). Hall (Broeder, 2021) asserts that cultures can be broadly classified as either high-context or low-context based on the degree to which they depend on contextual cues in communication. In high-context cultures, the majority of the meaning is unconscious and based on shared cultural knowledge, and, in contrast, in low-context cultures, communication is more direct and clearly stated.

In high-context cultures, a majority of communication meaning is acquired from internalized information or the surrounding environment rather than from directly expressed words or sentences (Broeder, 2021). The cultures in question, such as many Asian nations, rely largely on culturally embedded visual references and common culture-specific signals for communication, which are often not explicitly stated. Recognizing more nuanced, predetermined contextual clues is necessary to comprehend the meaning of a message. Low-context cultures, on the contrary, communicate more directly with the use of words to express the vast majority of information. This behavior usually occurs in Western cultures, which value verbally expressed, structured, and unambiguous instructions over implicit cultural understandings.

According to Jenifer & Raman (2015), understanding the often invisible cultural factors at both organizational and national levels is crucial in ensuring effective communication in diverse settings. Consequently, organizations must actively seek solutions to these culturally embedded barriers in addition to acknowledging their existence. In this regard, cross-cultural communication skills enable organizations to operate in ways that respect the cultural values, norms, and beliefs of those with whom they interact. Thereby, in order to prevent miscommunications and promote inclusive and accessible cross-cultural communication, it is necessary to address the cultural barrier and the various factors behind it.

2.1.3 Cognitive Barrier

When the complexity of a message in terms of language and content surpasses the recipient's ability to process information, a cognitive barrier arises (Maaß & Rink, 2024). Namely, if the information is presented indirectly, contradicted, or intertwined with other aspects, recipients may find it challenging to comprehend the message. Individual differences in cognitive capacities are expressed through nuances in recalling memories, information processing speed, and the capacity to differentiate between similarities and

differences (Hyppönen, 2022). An individual's cognitive functioning includes dynamic interactions with their surroundings and ongoing information processing. Having an awareness of thorough cognitive functions is especially important when adjusting to new or evolving circumstances. How cognitive difficulties appear may vary, and concentration, the perception of space, the process of planning, and comprehending written and verbal communication are all particular ways by which cognitive issues may occur.

Executive control, motivation, language, perception, attention, voluntary motor skills, memory, and emotions are the fundamental components of cognitive functioning (Hyppönen, 2022). For learning and remembering new knowledge, effective and sustained attention is particularly important. Executive controls, on the contrary, allow an individual to freely predict, plan, and execute action while adjusting to changing conditions. The ability to distinguish between information that is relevant and that which is not is necessary for perception. Language-based concepts are crucial for carrying out tasks, and individuals can communicate with others through their linguistic ability. Goals are heavily influenced by motivation and emotions, and individual variations in emotional reactions determine why people respond differently to similar circumstances.

The challenges regarding written communication and reading have been reported among the adult population in Finland (Öörni, 2024, chapter 1). Approximately 10% of Finnish adults lack the fundamental reading abilities required for daily interactions. This group of individuals includes those with intellectual disabilities, individuals of immigrant backgrounds, individuals with memory impairments, and those struggling with reading and writing (Hyppönen, 2022). Öörni (2024, chapter 1) claims that functional literacy abilities can be lacking, even when basic mechanical reading may be obtainable. These deficiencies limit an individual's capacity to completely understand written material and use it successfully in practice.

As addressed in this chapter, the cognitive barrier may arise in various forms, affecting how individuals receive, process, and respond to information presented in different formats. The complexity of the barrier stems from the range of forms it can take and how it might vary from person to person based on an individual's cognitive difficulties. Given this variability, organizations may encounter difficulties in recognizing such barrier and discovering effective ways to tackle or prevent it. Nonetheless, it is crucial to recognize these obstacles when it comes to safety communication since failing to understand or remember safety-related information might lead to critical incidents with potentially fatal outcomes (Lesch, 2005). Hence, it is vital to incorporate this cognitive diversity in the design of safety communication to make sure that all essential information is accessible and applicable to all employees.

2.1.4 Expert Knowledge and Language Barrier

When specialized terminology makes it challenging to comprehend the information's content, even for individuals who otherwise comprehend the language in general, it constitutes *an expert language barrier* (Maaß & Rink, 2024). Alternatively, when the reader lacks the necessary background information required to comprehend the subject, *an expert knowledge barrier* emerges. Here, comprehension requires particular underlying knowledge, and individuals who lack prior expertise may find it hard to understand the contents in such situations. The use of complex terminology and comprehensibility are thus negatively correlated since the intended message can be hidden by unfamiliar jargon. The degree of a text's specific information has a significant influence on how comprehensible it is. Since comprehensibility in this context mostly serves experts in the field, these messages become less accessible to a broader audience and cause barriers for those unfamiliar with the subject. Although both of these communication barriers may arise simultaneously, they are not, however, always interrelated. Yet, both barriers tend to be common in specialized communication. It is even stated in the discussion that

at present, these specialized texts present the greatest barrier to accessible communication.

One common challenge relating to the expert knowledge barrier is information overload (Eppler, 2007). This occurs when the amount and complexity of new information exceeds an individual's cognitive processing capacity, requiring rapid interpretation that is beyond their capabilities, making it a struggle for them to fully incorporate new information (O'Reilly, 1980; Eppler & Mengis, 2004). Furthermore, when using too technical language or presuming that others comprehend complex topics without additional explanation, the exchange of information may be unintentionally complicated (Eppler & Mengis, 2004). Because of this tendency, which is also referred to as the curse of knowledge or paradox of expertise, experts find it challenging to make their insights understandable to non-experts. Certain terms, which exist at the intersection of common language and technical jargon, may be assumed by experts to be widely known by others. Consequently, they might overestimate how clearly they are communicating, which may end up in miscommunications and inadequate information transfer. Hence, by avoiding excessive technical jargon and providing clear, instructive knowledge, experts can better convey their knowledge to other individuals.

Maaß & Rink (2024) claim that specialized communication where expert language and expert knowledge barriers appear constitutes one of the greatest challenges to accessible communication currently. Hence, the possibility of overly technical language or assumptions of prior knowledge must be considered, especially when it comes to safety communication, which needs to be accessible for all.

2.2 Accessibility in Safety Communication

The principle of accessibility is to ensure that every individual, irrespective of their various needs or backgrounds, can use and access information, services, products, or surroundings on an equal basis (Hirvonen et al., 2020, chapter 1). At its core, accessibility

reflects a commitment to recognizing and accommodating the various needs and differences among individuals (Saavutettavuusvaatimukset.fi, n.d-b). Accessibility, in relation to communication, refers to the extent to which a text considers the reader's attributes, such as language proficiency, cognitive abilities, and prior knowledge, along with the broader situational context in which reading takes place (Öörni, 2024, chapter 3).

Accessibility is an essential component of a broader category of concepts encompassing physical accessibility and usability (Hyppönen et al., 2023). Physical environments are frequently associated with physical accessibility, which guarantees that settings, items, and services are provided in ways that each individual may use without challenges. The ease and effectiveness of with which an individual may use digital tools or devices to carry out activities and achieve their objectives is, on the contrary, described as usability (Hyppönen et al., 2023). Accessibility also goes beyond mere availability (Hirvonen et al., 2020, chapter 1). The concepts of availability and accessibility are closely connected since they are occasionally used as synonyms. In the context of communication, accessibility focuses particularly on removing barriers to understanding and ensuring that the provided information is comprehensible and usable for everyone. Accordingly, this research adopts the definition of accessibility that covers the communication perspective.

Hirvonen et al. (2020, chapter 1) underline that enhancing communication-related accessibility has evolved as an increasingly important societal objective in the twenty-first century. Digitization and globalization both have provided novel opportunities for communicating information, yet they have additionally imposed demands to ensure accessibility despite language, communication, or other challenges. One aspect of the increasing need for accessible communication is the growing number of Finnish citizens whose native tongue is not Finnish or Swedish, and since a larger proportion of the population has challenges with reading (Öörni, 2024, chapter 1). She further states that this specific demographic of individuals speaking Finnish or Swedish as a second language has increased substantially over the past decade. As of the end of 2022, over

half a million permanent residents of Finland communicated in a foreign language, reaching approximately 9% of the population as a whole. Along with being required by accessibility regulations, equality also serves as an elementary requirement that is demanded by the general public (Öörni, 2024, chapter 1). Reviewing this recent development in Finland and globally further highlights the importance of having texts that are accessible.

The European Union has further refined accessibility in the modern era through several directives, specifically those applicable to services and products. For example, EAA, the European Accessibility Act (EU Directive 2019/882), aims to make both digital and physical services and products more accessible (European Commission, n.d). The Act follows the principles of accessibility to enhance a more inclusive society, especially for those with disabilities. The EAA integrates accessibility requirements also into the design of safety communication, both technically and in terms of content. Hence, accessibility of digital services, multi-channel communication, and usability are all inherently linked to communication on safety and risk. However, the assurance of the accessibility of safety guidance goes beyond mere technical implementation – it is a fundamental component of developing a safety culture that is inclusive, equal, and responsive to diverse user needs.

Digital accessibility has become a great topic of discussion in the field of accessibility, and it is also an important aspect to underline here. The Act on the Provision of Digital Services (306/2019) has been based on the EU Accessibility Directive (2016/2102/EU) and has been applied to digital services provided by public authorities to promote access to digital services. However, the Act on the Provision of Digital Services (306/2019) has been amended and updated. Following the period of transition, ending on June 28, 2025, the Act's covered services and operators must adhere to the Digital Services Act's requirements for accessibility (Saavutettamuusvaatimukset.fi, n.d-a). The amendment thus has extended the legal accessibility requirements to include additional services and operators.

This perspective of digital accessibility, the current version, and the new requirements and obligations under the Digital Services Act, focuses generally to online websites and mobile applications and their functionality and contents of the parties covered by the law (Saavutettavuusvaatimukset.fi, n.d-a). Although safety communication and its accessibility are not always covered by the Act on the Provision of Digital Services (306/2019), the requirements of the Act may become applicable. For instance, the Act applies to intranets and extranets used by public authorities and bodies governed by public law (Saavutettavuusvaatimukset.fi, n.d-a). Specifically, accessibility requirements must be met by intranets and extranets that were launched or completely modified on or after September 23, 2019. This includes digital systems utilized in the workplace, particularly in the context of an employee's role. A workplace extranet typically facilitates communication and cooperation among a specific group working on a shared task, such as a development or construction project. Therefore, if safety communication is delivered through such platforms, the accessibility requirements outlined in the Act must be considered.

Cognitive accessibility is one of the dimensions of accessibility and refers to an individual's ability to comprehend content (Saavutettava kieli, n.d.). It considers features such as text-to-speech functionality, descriptions of important terms, language alternatives, and illustrations helping individuals process and comprehend the content better (Hyppönen et al., 2023). The discussion also highlights language as an essential perspective in achieving cognitive accessibility. Therefore, achieving cognitive accessibility – and accessibility in communication in general – requires that the use of language is designed with consideration for the varied needs and knowledge levels of different users. More specifically, Öörni (2024, chapter 3) states that to achieve cognitive accessibility, the use of easy language is required (Öörni, 2024, chapter 3). This view is supported by Hirvonen et al. (2020, chapter 13), who also consider easy language as part of communication accessibility.

Increasingly, accessibility initiatives concentrate on using principles that improve the versatility and readability of communication, not merely for individuals with special

needs but also for a broader range of audiences (Hirvonen et al., 2020, chapter 1). The use of clear language serves as an essential tool towards these goals and hence is considered part of achieving accessibility. Tiililä (2015) presents that clear language can be linked to vision and perception, and can also be understood to include the visual dimension of written language. In the summer of 2023, the International Organization for Standardization (ISO) approved a global clear language standard, ISO 24495-1:2023, which also marked an important turn in the promotion of clear language (Raevaara, 2024). The standard offers guidelines and recommendations for clear and easy-to-comprehend language in communication within several contexts and languages, supporting both text clarity and cognitive accessibility (ISO, 2023).

According to the ISO standard, the use of clear language in communication assures that the terminology, structure, and format are designed to help the target audience to make it easier to find the information they require, understand it effortlessly, and use it effectively (ISO, 2023). The primary objective and the core conception of the standard are the needs of the reader while providing recommendations for easy-to-comprehend and user-friendly language (Raevaara, 2024). In addition to improving the credibility and recognition of efforts to promote accessible communication, the establishment of this global standard for clear language can additionally serve as a practical resource for writers aiming to improve the readability of their content. The ISO standard is now also officially recognized as a national standard in Finland and is available in Finnish. It is necessary, however, to remember that the standard applies to information that is predominantly presented as text on paper or in an electronic format. Yet, other types of communication can also be subjected to the standard's guiding principles.

The term of *understandability* is also strongly linked as a part of accessibility (Saavutettavuusvaatimukset.fi, n.d.-b). On a broader level, it refers to how a text is interpreted, processed, and perceived by the reader (Tiililä, 2015). This implies the use of clear, understandable language, often meaning the use of easy language (Saavutettavuusvaatimukset.fi, n.d.-b). The use of comprehensive words, sentences, phrases, and coherent elements of the text all improve clarity, and thus also the

understandability of the text (Tiililä, 2015). In addition to structural elements such as coherence and logical structure, clarity is further enhanced by spelling guidelines and punctuation norms, including appropriate capitalization, punctuation, and conjunction usage.

Textual clarity can also be enhanced by the utilization of comparatively straightforward and plain sentence patterns (Tiililä, 2015). Headings are one example of a feature that helps the reader recognize the main points of a clear text. Öörni (2024, chapter 2) discusses how clarity might always be increased in communication. While clarifying certain complex subjects for a broad audience may require significant effort, any text can be refined to improve its clarity, which promotes better understanding and thus accessibility.

Achieving accessible communication requires, however, focusing not only on the linguistic clarity but also on the diversity of communicative methods (Hirvonen et al., 2020, Conclusions). It is also noted in the discussion that by employing different means of communication, it is possible to enhance communication accessibility and also expand opportunities for participation. In addition to the use of easy language discussed earlier to promote accessibility, Hirvonen et al. (2020, Conclusions) mention multimodal communication as a means to diversify communication. This approach enhances multiple sensory channels – integrating visual and auditory formats like photos, videos, and sound in addition to text (Saavutettavuusvaatimukset.fi, n.d.-b). Hyppönen (2022) also highlights that cognitive accessibility, particularly, can be improved by providing information in multiple modes, thereby reducing the impact of limitations associated with any single form of access.

This chapter explored the concept of accessibility through its various perspectives. By examining accessibility from these multiple angles, the discussion demonstrated its complex nature and its significance in today's society. In addition, the chapter highlighted how accessibility does not emerge but requires conscious, constant engagement with the topic. The discussion addressed that accessibility is not achieved

passively, but through consistent efforts influenced by social and legal requirements. The main focus was on accessibility as it pertains to communication, drawing from previous research and global standards to position the topic within the context of safety communication. In the course of the chapter's discussion, multimodal communication and easy language emerged as the proposed approaches for overcoming barriers to communication accessibility. The following sub-chapters will delve deeper into these approaches, emphasizing how they can foster more inclusive and understandable communication and how they could be utilized in the implementation of safety communication.

2.3 Approaches to Enhancing the Accessibility of Safety Communication

2.3.1 Easy Language

Easy Language, Easy to Read, Easy Finnish, or in Finnish known as *selkokieli*, refers to a simplified version of the Finnish language intended to improve comprehension and reading (Selkokeskus, n.d.). Further refined, easy language modifies the vocabulary, structure, and content to enhance the processing of information. Based on the concept of social equality and the right of all individuals to participate equally in society, the development of easy language in Finland began in the 1970s (Sainio, 2002). Hirvonen et al. (2020, chapter 13), however, state that despite decades of development, the studies on easy language remain relatively limited. Nevertheless, the growing interest in easy language demonstrates an increasing desire to utilize it in various settings to enhance communication accessibility.

The intended audience is the key factor that distinguishes easy language from general language, as it has been specifically developed for individuals who have trouble comprehending or understanding the common language (Leskelä, 2020; Selkokeskus, n.d.). As Öörni (2024, chapter 1) states, the need for easy language has been growing, and it is estimated to benefit up to one in seven Finns. More specifically, this covers 11-

14% of the population (Hirvonen et al., 2020, chapter 13). In particular, easy language is important for foreigners who have relocated to Finland, as they may not be familiar with the language or the customs of the country (Öörni, 2024, chapter 3). To successfully integrate and find employment in Finland, proficiency in Finnish is essential (Juusola, 2019). Accordingly, easy language can be seen as a valuable tool to enhance language proficiency and also enable easier integration into Finnish society.

In addition to people with a migrant background, easy language benefits also those with other difficulties with comprehending information, for whom reading is challenging, and those with intellectual disabilities (Öörni, 2024, chapter 3). Moreover, beyond these groups, there are many others who, occasionally or in certain circumstances, may find easy language as helpful (Hirvonen et al., 2020, chapter 13). Therefore, as noted by Uotila (2020), in today's complex information society, it is particularly important to acknowledge the growing need for easy language and to recognize and take into account the various needs of the broad and diversified audience.

Enhancing comprehensibility serves as the core objective of easy language, achieved by simplifying vocabulary along with the fundamental grammatical and structural forms (Maaß, 2020). To minimize the amount of information, easy language utilizes simple structures, common terms, and audience-tailored communication that addresses the reader's linguistic needs (Selkokeskus, n.d.). According to Hirvonen et al. (2020, chapter 13), using shorter and clearer sentence structures facilitates the integration of new content with prior knowledge, as it lessens the information overload associated with processing new information. In addition to this linguistic simplification, the layout of easy language content is cleaner when compared to standard language (Selkokeskus, n.d.). Additionally, Sainio (n.d.) discusses the importance of textual coherence in easy language, stating that a clearly structured text helps the reader to comprehend it as a cohesive whole. Moreover, Leskelä (2020) states that to further enhance comprehension, key phrases in a text can be reinforced through visual elements, such as graphics linked to keywords or concepts, and, when applicable, complemented with audio.

Easy language supports accessibility by promoting the principle of equal communication rights and is specifically regarded as an integral part of cognitive accessibility (Hirvonen et al., 2020, chapter 13). It represents a simple yet efficient means of fostering more inclusive communication. Regardless of the form of communication, content and information can be presented in a form that is easy to comprehend and process with the help of easy language tools and resources. However, to achieve this successfully, certain guidelines need to be adhered to ensure that the texts meet the requirements of the target audience. Accordingly, Uotila (2020) presents three linguistic layers that constitute the general principles and guidelines of producing easy language texts: structure and coherence, word usage and terminology, and grammar and linguistic structures.

When producing content or text in easy language, it is necessary to incorporate the principles outlined above. To achieve this, the writer must ensure the text's coherence by actively addressing the needs of the reader and considering elements such as topic, layout, structure, perspective, and the overall amount of information (Uotila, 2020). By avoiding longer or complicated words, especially those with complex inflections, and by providing contextual definitions for abstract or specialist terms, the writer can emphasize clarity at the vocabulary level.

To further improve accessibility and comprehension, the writer should use concrete and familiar language when expressing abstract concepts, support comprehension with relevant examples, and use metaphors and sayings with caution. At the structural level, text clarity can be achieved by using short phrases and standard grammatical structures. Additionally, comprehension and readability improve from reducing complicated sentence structures, including long definitional chains and non-finite clauses, and by favoring active voice over passive.

Based on a theoretical basis, the guidelines for easy language emphasize two primary aspects: the reader's reading progress and the understandability and readability of the text (Leskelä, 2020). Text understandability theory suggests that a text is considered

readable if it primarily uses short words and phrases. In addition, visual components, such as clear fonts and well-proportioned margins, can improve readability. Conversely, receiver-oriented theory emphasizes the need to consider readers' varying language proficiency and cognitive abilities in the text creation process.

The Finnish guidelines for easy language recommend involving readers in the development of texts to determine their comprehensibility (Leskelä, 2020). This approach emphasizes the importance of viewing the writing from the reader's perspective and involves methods such as collecting feedback through discussions to evaluate how well the text is understood. The Finnish Centre for Easy Language (Selkokeskus, n.d.) aligns with this view by emphasizing that writing from the reader's perspective allows for addressing the reader directly while creating consistently structured paragraphs that contain sufficient information. According to Leskelä (2020), the theoretical aspects of easy language presented earlier are complementary, and their shared aim is best captured through the concept of accessibility. This therefore, indicates that easy language can serve as a means to enhance accessibility in the context of communication.

2.3.2 Multimodal Communication

Modality, in its broadest sense, refers to a characteristic or aspect that defines how something occurs, is communicated, or is perceived (Bunt & Beun, 2001, p. 1). In the context of communication, however, modality more specifically refers to the use of multiple modes to transmit meaning in communicative interactions and in texts. A multimodal message essentially uses several modes or sign systems, which can also be referred to as semiotic resources (Kaindl, 2013, p. 258). These modes include commonly recognized forms and channels, such as visual symbols and coherent message structuring. The term *multimodal* is therefore used to describe communication that

incorporates several modes in communication and in how they interact to deliver information or meaning.

Bateman et al. (2017, p. 7) describe multimodality as the utilization of several modes simultaneously to increase the overall effectiveness of communication. Complementing this, Bunt & Beun (2001, p. 3) discuss how using multiple modalities together allows for different aspects of the information to be communicated more effectively. Hirvonen et al. (2020, Conclusions) present how, in addition to enhancing efficiency, multimodal communication can also support communication accessibility. The European Commission (2024) further discusses that multimodal communication embraces the many requirements and demands that individuals have in terms of how they comprehend information. Thus, multimodal communication is often considered essential for promoting accessibility, as it accommodates a wide range of individual needs.

According to Bunt & Beun (2001, p. 3), natural communication is characterized by the multifaceted use of modalities that enhance its meaning. In this context, the term mode refers to a system of signs or semiotic resources in texts and communication settings, such as language, gestures, visuals, or sounds, through which to select to express the intended messages (Stöckl, 2004, p. 21). In written texts, for example, topic changes are frequently marked by the positioning of words, such as section divisions and paragraph breaks (Bunt & Beun 2001, p. 3). Furthermore, the interplay of layout, typography, and images shapes the visual perception of text (Stöckl, 2004, p. 20). By combining spoken and written language with sound, music, and moving images, digital media expands the range of semiotic resources available for communication. On the contrary, face-to-face communication interaction relies not only on verbal language but also on non-verbal cues such as gestures, facial expressions, body language, or tone of voice to express meaning (Bunt & Beun, 2001, p. 3; Stöckl, 2004, p. 20). To further explain how the various modes enhance meaning, Stöckl (2004, pp. 11-15) presents the core modes along with their sub-modes, as illustrated in Figure 4 below.

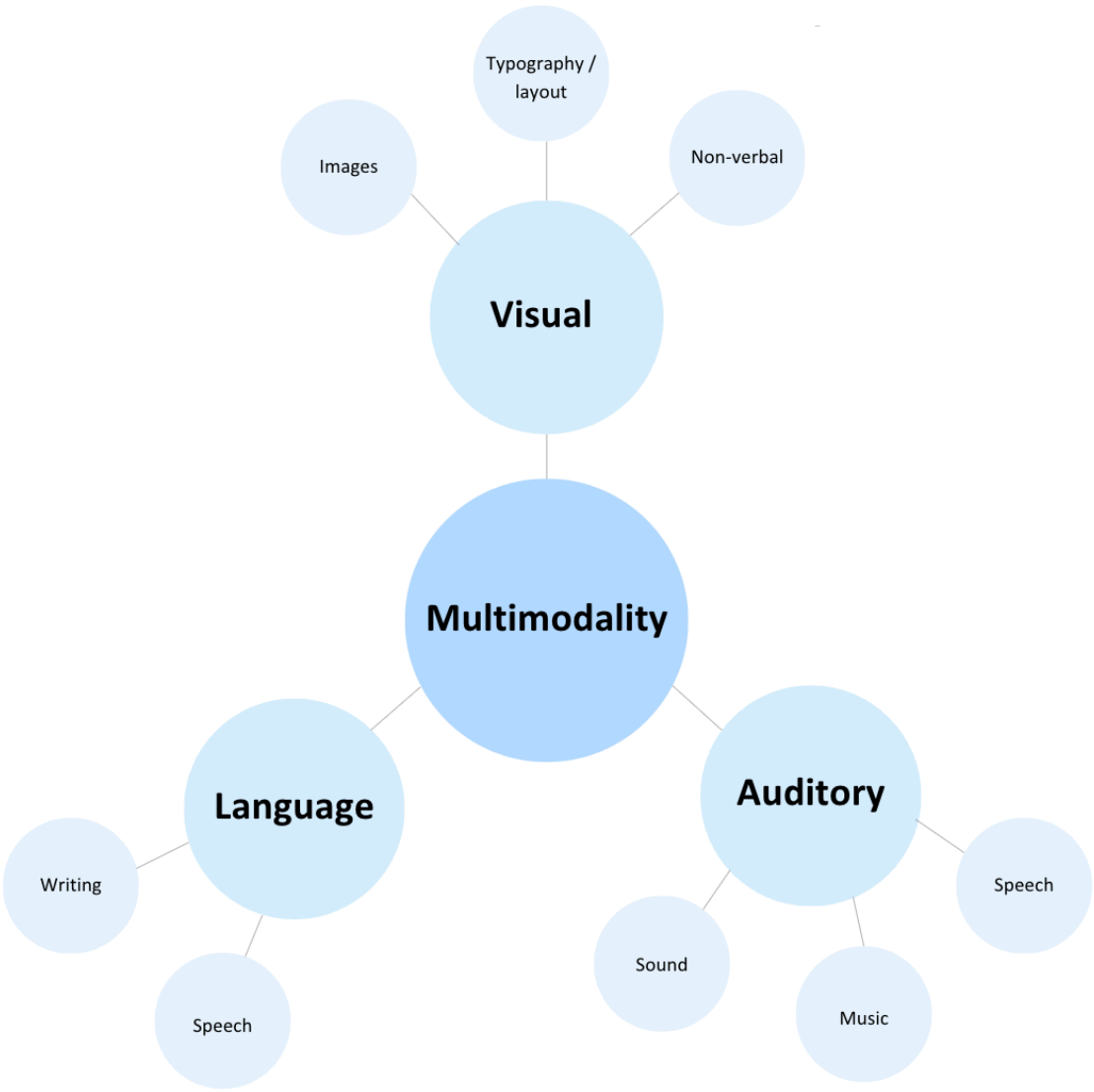

Figure 4. The core modes and sub-modes in multimodal communication (Adapted from Stöckl, 2004, pp. 11-15).

According to Stöckl (2004, pp. 11-15), the core modes in multimodal communication – *visual, language, and auditory* – serve as the basis of a multimodal meaning-making, while the sub-modes function as the functional components that form and connect these broader modes. When combined, they provide a dynamic, hierarchically structured system in which media and sensory channels interact and overlap to convey

meaning. The discussion further states that, depending on the genre, context, and the objectives of communication, different modes within a text may be highlighted or given greater emphasis. In both the creation and reception of texts, this dynamic arrangement plays a central role in how meaning is constructed.

Holsanova (2012) emphasizes that the perception and interpretation of visuals in multimodal messages result from the interaction between the viewer, the content, and the surrounding context. Consequently, individuals may interpret the same visual differently depending on their background, viewpoints, and prior experiences. This interpretative variability has, for example, contributed to the ongoing discussion about how modes are represented in multimodal communication (Bateman et al., 2017, p. 10). As the media landscape in both everyday and professional contexts continues to evolve, communication increasingly occurs through diverse platforms and channels. This development illustrates the increasing necessity of comprehending how different modes function and work together in evolving communication environments.

As presented by Martinez Usero et al. (2024) and also highlighted by Hirvonen et al. (2020, Conclusions), multimodality can be used to improve communication accessibility by employing various communication modalities that support and foster interaction. As noted earlier in the chapter, multimodality allows the selection of the most suitable format or channel depending on the nature of the content. The significance of multimodality in promoting accessibility is also brought up in the United Nations' (n.d.) disability-inclusive communication guidelines, which state that providing information through several kinds of communication modes helps to ensure that the communication content is accessible regardless of individuals' background or abilities.

Furthermore, a multimodal approach acknowledges that individuals process, perceive, and engage with information in different ways (United Nations, n.d.). Therefore, the use of multiple communication modes enables adaptation to diverse needs, which in turn promotes accessibility. As stated by the European Commission (2024), while human cognition and perception are inherently complex, multimodality offers a means to

address this complexity, ultimately resulting in more engaging, effective, and accessible communication.

2.4 Summary of the Theoretical Framework

The chapter has outlined and explored different types of academic literature concerning communication barriers and communication accessibility in the context of safety communication within multicultural and multilingual settings. This sub-chapter concludes the core theoretical aspects relevant to the study, and in doing so, presents the theoretical framework that forms the foundation for the empirical analysis.

The first theoretical focus was on identifying different types of communication barriers and exploring how they occur in linguistically and culturally diverse organizational contexts. The second focus addressed communication accessibility, outlining two approaches through which it can be applied to promote inclusivity and equal participation in safety communication. Building on these perspectives, this chapter expands the discussion by analyzing how these two aspects are interrelated through the lens of the selected theoretical framework. By integrating both viewpoints, the chapter also addresses the study's first research objective, namely, to *identify key communication barriers that hinder the comprehension and accessibility of safety-related information in multicultural and multilingual workplaces.*

As outlined in the earlier discussion, communication barriers can hinder access to information, regardless of whether individuals have special needs or not. Such barriers compromise the accessibility of communication, often resulting in misunderstanding or an inability to understand the intended message. A diverse workforce presents additional challenges to safety communication, as the audience may vary in cultural background, language proficiency, cognitive abilities, and professional expertise. In safety communication, it is especially vital that the message is not only understood but also retained –

for the safety of the employees and to ensure the overall safety culture within organizations. Communication barriers can prevent the implementation of accessible safety communication, potentially limiting awareness and comprehension of essential workplace safety information. Consequently, it can raise the likelihood of incidents and create additional safety hazards. Hence, safety communication ought not to be assumed. Rather, it demands careful attention to the diverse needs individuals may have in terms of language, culture, cognitive ability, and expertise. The degree to which all possible ways of receiving, processing, and comprehending information are acknowledged and considered during the design process ultimately determines the accessibility of safety communication.

The first section of the thesis's theoretical part defined the various forms and characteristics of communication barriers identified in relation to a diverse workforce. Although these barriers may occur simultaneously, they are examined separately in this study. By analyzing each barrier separately, the thesis provides an extensive understanding of the barrier's specific features. The five most prominent communication barriers identified – linguistic, cultural, cognitive, and expert knowledge and language – each hinder comprehensibility, lead to misinterpretation, and reinforce existing inequalities in communication (see e.g., Guirdham, 1999; Lindhout et al., 2021; Al-Mutairi, 2024; Hyppönen, 2022; Maaß & Rink, 2024).

Alternatively, the second part of the study's theoretical section focused on defining accessible communication. It also explored the two approaches – easy language and multimodal communication – that emerged from the theoretical discussion. This focus highlighted the nature of accessibility and how it may be achieved and enhanced in communication situations. Accessibility covers, first and foremost, clear and understandable communication, and its various forms can support equity in communication. Therefore, using specific communication approaches such as easy language and multimodal communication can significantly contribute to promoting accessibility.

The accessibility of safety-related information and guidance plays an important role in the overall safety culture within multilingual and multilingual organizations. Accessible safety communication not only addresses people with special needs but also considers every employee to ensure that all employees can understand and use the information provided. Consequently, when accessibility is ensured within the organization, it demonstrates the implementation of diversity at the communicational level.

The two approaches of accessible communication, easy language, and multimodal communication can serve as practical strategies for promoting safety communication accessibility. Easy language simplifies information and emphasizes content most relevant to the reader, while multimodal communication offers alternative formats, enabling individuals to select the format that best meets their unique situation.

Figure 5 illustrates the theoretical framework of the thesis, outlining the interconnection between the main concepts and their relation to each other. Accordingly, this framework serves as the conceptual foundation for the empirical study, which seeks to investigate how these previously identified communication barriers impact employees' comprehension of safety communication and what approaches organizations should adopt to improve their communication accessibility for a diverse workforce. From an accessibility perspective, the empirical study focuses particularly on how accessibility is implemented in practice and the challenges associated with it, with special attention to the role of communication barriers. Building upon the established framework, the study consequently seeks to offer suggestions to improve safety communication accessibility for the commissioning company and its client organizations, while considering key contextual factors.

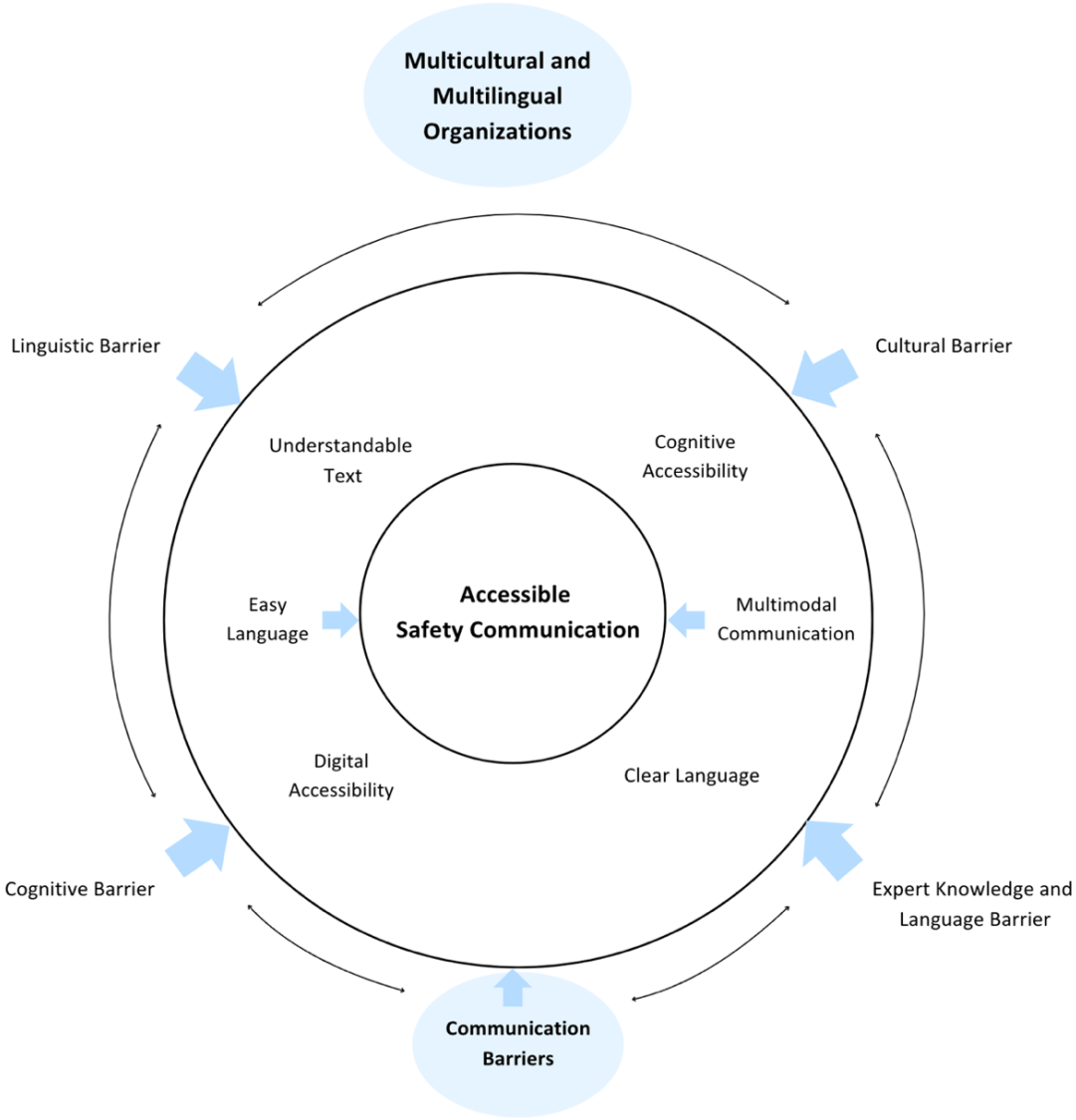

Figure 5. The theoretical framework of the thesis.

3 Methodology

This chapter presents a detailed description of the study's methodology. It begins by introducing the foundations of qualitative research, followed by an explanation of the study's methodological approach. The data collection method used in this thesis is outlined in the sub-chapter thereafter, followed by an introduction to the data analysis method applied. Finally, the last sub-chapter addresses the reliability and validity of the research, along with the ethical aspects essential for assessing the thesis's overall trustworthiness.

3.1 Research and Methodological Approach

A qualitative approach was chosen as a research approach for this study primarily due to its suitability for exploring phenomena from the participants' perspectives, focusing on their experiences, views, emotions, and the meanings they attribute to the subject (Puusa et al., 2020, Introduction). The use of qualitative research was further supported by the notion that it provides a thorough understanding of how individuals and systems behave in real-world situations and why they act as they do (Eriksson & Kovalainen, 2015, p. 4). Furthermore, this method enables the investigation of the complex nature of phenomena in business contexts, as it enables a contemplative and critical perspective of the social aspects of business and its fundamental operations. Regarding these characteristics, the qualitative method was especially suitable for this thesis, which aimed to *examine the accessibility of safety communication in multicultural and multilingual organizations.*

The methodological approach selected for this study was phenomenology. As Moran (2000, p. 4) states, phenomenology aims to examine how phenomena appear to individuals and how the sense of awareness experiences them. According to Puusa et al. (2020, chapter 19), this approach seeks to comprehend phenomena as reflected in the real-life experiences of participants. Similarly, Creswell (2024, p. 90) notes that

phenomenology examines individuals' lived experiences of a certain phenomenon. Thus, together these arguments underscore the suitability of phenomenology as a methodological choice for the thesis, which aimed to capture respondents' own experiences of communication barriers and accessibility within a multicultural organisational context.

3.2 Data Collection Method

A variety of methods can be used to gather data for qualitative research. Research material is frequently based on individuals' expressed experiences, and therefore, the data collection methods often include interviews (Tuomi et al., 2018, chapter 3.1.1). Depending on the study and its objectives, the most appropriate interview method can be selected from a range of alternatives. Accordingly, this thesis employed semi-structured theme interviews as the chosen data collection method.

The notion that meaning is constructed through interaction forms the methodological foundation for thematic interviews (Tuomi et al., 2018, chapter 3.1.1). This data collection method allows for examining how individuals perceive their experiences and give them meanings in certain situations. The main topics covered in thematic interviews are determined by the overall aim and objectives of the study, and they serve as a guide for the interviews. The structure, however, remains flexible rather than strictly defined in thematic interviews (Hirsjärvi et al., 2022, chapter 4.2.3). Therefore, thematic interviews are classified as semi-structured, as they combine a flexible format with a consistent thematic focus (Hirsjärvi et al., 2022, chapter 4.2.3; Vilkka, 2021, chapter 2, Tutkimushaastattelu).

In semi-structured thematic interviews, the pre-established themes allow the pattern and wording of the interview questions to be modified according to how a particular interview unfolds (Eriksson & Kovalainen, 2015, p. 95). Additionally, this structure allows the conversation to evolve naturally, as the predefined themes can be addressed in an

order that adapts to the flow of the discussion. One of the main advantages of thematic interviews is indeed their ability to modify and add questions based on the interviewee's responses, leading to a focused and in-depth examination of the subject matter (Tuomi et al., 2018, chapter 3.1.1).

The interview approach applied in this study was constructionism. This interview approach draws a strong emphasis on the co-construction of meaning that results from the dynamic interaction between the interviewee and interviewer (Eriksson & Kovalainen, 2015, pp. 92-93). These interviews, as opposed to more structured ones, frequently take the form of natural, conversational interactions, allowing the researcher the possibility to adopt either an active or more observational role. Constructionist interviews are typically guided by predefined questions that act as prompts to initiate the conversation, allowing it to unfold naturally and take various directions based on the interaction between the participants.

Given the study's aim to examine communication-related barriers affecting the accessibility of safety communication in multicultural and multilingual workplaces, semi-structured thematic interviews were particularly well-suited as the data collection method. The flexibility of this method was especially valuable in uncovering real-life examples of communication challenges and practices within diverse organizational contexts. Additionally, adopting a constructionist interview approach further supported a natural, conversational flow, giving interviewees the opportunity to freely share their experiences and perspectives. As a result, the interviews produced rich and insightful data on the phenomenon under study.

The study's theoretical framework, which was drawn from the previous literature reviewed in the theoretical chapter, was applied to refine the themes that guided the interviews. These predefined themes, together with corresponding questions, structured the interviews, while allowing flexibility for follow-up questions based on the interviewees' prior answers. Aligned with the study's aim and objectives, the selected

themes emphasized the research's key areas and thus focused on four main themes. The whole structure of the interviews can be found in Appendix One.

3.3 Research Data

The data for this thesis were collected through semi-structured thematic interviews. Given that the focus of qualitative research is to provide an in-depth description of the phenomenon or event being studied, it is essential to collect data from individuals who have direct or substantial experience with the subject in question (Tuomi et al., 2018, chapter 3.4). The interviewees were therefore selected through purposive sampling based on their relevance to the study. The selection focused on individuals responsible for leading teams in multicultural and multilingual environments, and they were chosen from the customer organizations of the commissioning company, If P&C Insurance.

Supervisors, managers, or individuals in equivalent leadership roles were selected as interviewees due to their primary responsibility for informing employees about safety-related matters. This selection was supported by the premise that, in their position, they are most likely to encounter situations involving communication barriers or where the accessibility of safety communication is particularly critical. An additional reason for selecting individuals in these roles was the expectation that they would offer practical experience and valuable insights into the challenges and effective practices related to safety communication. Moreover, their perspectives were considered highly relevant to achieving the study’s aim and objectives, in identifying communication barriers and evaluating both current and possible methods for promoting accessible safety communication in diverse workplace environments. In accordance with the ethical requirements of research and to ensure anonymous participation, the identities of the participants have been replaced with generic labels such as Respondent 1 (R1), Respondent 2 (R2), and so on. In this way, the data is presented without including any personal data. A summary of the interviewees’ background information is provided in Table 5 below.

Table 5. Interviewee background information.

Interviewee	Role	Industry	Duration	Date
R1	Safety Supervisor	Bakery Industry	1 h 1 min	8.5.2025
R2	Employment Relations & Compliance Lead	Insurance Sector	36 min	15.5.2025
R3	Work Ability Specialist	Health and Social Care	33 min	15.5.2025
R4	Occupational Safety and Health Representative	Food Logistics	57 min	27.5.2025
R5	Human Resources Manager	Food Logistics	57 min	27.5.2025
R6	Production Manager	Animal Food Production	30 min	12.6.2025
R7	Corporate Security Manager	Retail and Service Sector	1 h 4 min	13.6.2025
R8	Health and Safety Manager	Industrial Coatings	52 min	17.6.2025
R9	Corporate Security Manager	Logistic and Supply Chain Industry	55 min	25.6.2025

As shown in Table 5, a total of 9 interviews were conducted between 8.5.–25.6.2025. In line with the previously mentioned selection criteria, all interviewees were employed by multicultural and multilingual organizations, and nearly all held supervisory or equivalent roles. The interviewees presented a variety of industries, which enhanced the richness of data and enabled a broader understanding of the phenomenon being studied. All discussions were carried out and recorded via Microsoft Teams and were subsequently transcribed into a clear written format afterwards to support the analysis,

which was in its entirety 138 pages. All participants were informed of the recording in advance. The recordings reduced the need for manual notes, allowing for an uninterrupted flow of discussion.

According to Tuomi et al. (2015, chapter 3.4.1), the concept of saturation can be applied to evaluate the adequacy of the qualitative data. When interviewees stop contributing new information relevant to the aim and objectives of the study, saturation occurs, and the data becomes repetitive. Following the repeated appearance of key themes related to the study's objectives throughout the interviews, the collection of data in this study reached saturation. By the ninth interview, there were no noticeable new insights emerging, which indicated that more interviews were not likely to provide any further information, and thus, the saturation of the data was achieved.

3.4 Data Analysis

This thesis employed a theory-driven content analysis approach to analyze the collected data, aligning with the research's purpose and objectives. Tuomi et al. (2018, Chapter 4.4) assert that content analysis is essentially a qualitative data analysis method that is employed to investigate links, patterns, and meanings in the data. Thus, in this study, the theory-driven approach was used to find underlying structures in the content, such as recurring narratives or action patterns, which serve as the main emphasis of the approach (Vilkka, 2021, chapter 6, Sisällönanalyysi).

Transcribing the material into written form is typically the first stage of the study's data analysis, enabling a comprehensive examination of the data. The degree of specificity with which interview transcriptions are produced is influenced by both the research objectives and the methodological approach of the study (Eriksson & Kovalainen, 2015, p. 98; Hyvärinen et al., 2010, Litteroijan muistilista). Thereby, in this thesis, the transcription process was guided by the three research objectives and the phenomenological research approach.

Regarding the thesis's second and third objectives, the data was initially viewed broadly, with special emphasis placed on highlighting both similarities and differences among the responses provided by the interviewees. The data was then examined in greater detail by classifying the material into categories according to how frequently each category appeared in the data (Tuomi et al., 2018, chapter 4.1). A theory-driven approach was exploited at this stage, employing the dimensions of accessibility and communication barriers as its analytical framework. These were employed to find themes in the data that correlate to the phenomenon related to the theoretical framework.

The data was further segmented into thematic groups to highlight key aspects of each theme (Tuomi et al., 2018, chapter 4.1). Here, thematization was utilized, with the emphasis placed on identifying themes that aligned both with the objectives and the theoretical framework of the study. More specifically, it was employed to find novel meanings around barriers to communication and the application of accessible safety communication in a multilingual and multicultural workplace. The primary goal was to examine the respondents' expressions of each theme and how they framed or presented their meaning. These themes and insights are presented in the analysis of the study as direct quotes.

3.5 Reliability and Validity of the Study

An essential phase in the research process is the evaluation of the study's trustworthiness. Crucially, this evaluation should be continuous throughout the entire research process, rather than being limited to the final phase of the study (Eriksson & Kovalainen, 2015, p. 304). Hence, the evaluation covers all phases of the research, beginning with theory writing and continuing through data collection and analysis.

In order to assess the trustworthiness of qualitative research, ethical principles ought to be considered (Puusa et al., 2020, chapter 12). Accordingly, all phases of the research process are covered by these ethics, which go beyond the mere gathering of data. They

cover the conduct of empirical work, the use of materials, the writing and publishing procedures, as well as the formulation of research ideas (Eriksson & Kovalainen, 2015, p. 77; Puusa et al., 2020, chapter 11). This study has consistently applied the ethical principles throughout its entire process. Consequently, sources have been used carefully, consistently, and accurately, with a critical consideration. The authors of referenced works have been acknowledged and cited by following academic writing guidelines and correct citation methods.

Interviews were used as the method of data collection, with careful attention given to research ethics. A purposeful sampling method was used to ensure that interviewees represented the primary audience relevant to the study's objectives. Participants were selected from among the commissioning company's client organizations, with a focus on individuals in supervisor or similar roles, based on their presumed knowledge and competence regarding the research topic. In this regard, respecting the anonymity of research participants is required as the highest priority during the research process (Eriksson & Kovalainen, 2015, p. 75). This includes ensuring the confidentiality of sensitive information and proactively recognizing any potential challenges to data security and anonymity. Throughout the study, the identities of the participants and all relevant research data were managed with full confidentiality. Prior to the interviews, participants were thoroughly informed about the study's topic, objectives, and aim, along with details on how the collected data would be utilized. Furthermore, participants were clearly informed about the voluntary nature of their participation and the confidentiality of their responses.

The transparency of research can be enhanced through the use of certain evaluation criteria to clarify its advantages and constraints (Eriksson & Kovalainen, 2015, pp. 303-309). The classic evaluation criteria, namely, reliability, validity, and generalizability, are often used to assess the research's credibility. However, these criteria, developed originally for quantitative research and primarily serve their methodological needs, may not be fully applicable (Tuomi et al., 2018, chapter 6.1). Consequently, the concepts of

credibility, *transferability,* and *dependability* have emerged as alternative criteria for assessing the trustworthiness of qualitative research. These criteria are therefore adopted in this thesis.

The credibility of a study and its evaluation is built upon multiple factors. According to Puusa et al. (2020), credibility can be supported by the researcher's profound understanding of the phenomenon under study, allowing a detailed and accurate description. Eriksson & Kovalainen (p. 308) point out how the researchers' ability to make links between observations and categories, and the sufficient quantity of data, are also parts of defining credibility. In this thesis, the researcher's understanding of the phenomenon was deepened through the development of the theoretical framework and systematic engagement with the data, enabling a precise description of the data collection and analysis. The sufficiency of the data was ensured by saturation, as previously outlined in Chapter 3.3, and the findings and conclusions of the study are closely aligned with the theoretical framework.

Transferability refers to the extent to which the findings of a study can be used in other research contexts (Eriksson & Kovalainen, 2015, p. 308). The purpose is to find any features or similar traits that link the current study to earlier research. In this thesis, transferability was supported by a systematic review of previous research to create the theoretical framework. Additionally, the findings and conclusions demonstrate connections to earlier studies while simultaneously offering novel value and insights with potential applicability across broader research contexts.

Dependability entails the researcher's responsibility to ensure that the research procedure is transparent, coherent, and well-reported (Eriksson & Kovalainen, 2015, p. 308). Such clarity contributes to the overall trustworthiness of the study. In this research, a logical and systematically structured research process, aligned with the standard format of a Master's thesis, was followed throughout the research process. The research began with a clearly defined aim and objectives, followed by a coherent literature review

and the development of a theoretical framework. Additionally, data collection and analysis are presented clearly, helping the reader follow the research process. Finally, the findings of the study are stated with clarity and coherence.

3.6 Utilization of Artificial Intelligence in the Thesis

In this thesis, an AI-based application, OpenAI ChatGPT4, was used at selected stages of the research process. The primary purpose of the tool was to enhance the clarity of academic writing by correcting grammatical errors and improving sentence structures. Additionally, AI was employed during the early development of ideas and in designing the thematic interview structure. The use of artificial intelligence adhered to the University of Vaasa's official guidelines for academic work. Furthermore, all content proposals generated by AI were critically reviewed by the author to ensure their accuracy and relevance. The author assumes full responsibility for the final content presented in this thesis.

4 Findings of the Study

This chapter presents the empirical findings of the thesis, offering a broader overview of the analysis of the data obtained from the interviews. Accordingly, the study's second and third objectives are also covered in this chapter. First, the focus is on communication barriers and challenges related to understanding in diverse organizational environments. This is followed by an examination of how accessibility in safety communication is experienced and established within these organizational contexts. To conclude the chapter, the findings of the data analysis are used to develop recommendations for the commissioning company and its client organizations to improve the accessibility of safety communication within the diverse workforce.

4.1 Cultural Factors Influencing the Understanding and Interpretation of Safety Communication

Certain common culture-related characteristics affecting employees' comprehension and interpretation of safety communication were made apparent by the interview data. One of the most significant communication barriers identified by the interviewees relates to cultural background, more specifically, in how it influences the way individuals receive, understand, and communicate various messages related to safety. Since these differences may trigger miscommunications and make the overall workplace safety culture more difficult to execute, cultural impacts on message interpretation hold particular importance.

> *''Naturally, there's a challenge that comes from having a different cultural background than those who are from Finland – they may not admit when they don't understand something. It's not always natural for them to do so, and they might just smile and nod as if they've understood, even if they're not entirely sure the message got through.''* (R1)

> *''Of course, in its own way, it's a bit of a challenge for people from a different culture than from Finland, that they don't necessarily admit that they don't understand.''* (R4)

Firstly, based on interviewees' responses, cultural frameworks influence the way individuals express whether they have understood the matter or not. Consequently, just because the information is theoretically delivered does not imply that the recipient has fully comprehended or processed it. Observations from the interview data regarding employees' expressions align with Hall's (Broeder, 2021) cultural divisions between low- and high-context cultures. Here, Finland presents a low-context culture, where directness is valued and emphasized in communication. In high-context cultures, this directness and verbal confirmation may be considered as confrontation and silence, and non-verbal signs may express respect or agreement. Yet, such behaviour is often perceived as confirmation of understanding in low-context cultures. The interview data directly showcases how this disparity leads to a significant amount of ambiguity, where managers may think their instructions are understood, and employees may completely avoid expressing misunderstanding to maintain harmony or avoid the feeling of shame.

> *''The challenge in certain cultures is that their ways of communicating are a bit different. Even if you try to make sure you understand this and they just nod and say, 'yeah yeah' and then after a while you find out that well, they're doing the opposite of what you've just been instructed to do.''* (R2)

> *''Very few questions are asked, or none. So, it is not necessarily communicated if something is not understood. There are times when you must force yourself in some way to ask whether they (employees) have understood […] when there isn't necessarily direct communication, it gets really challenging.''* (R1)

> *''This has happened many times with people from foreign backgrounds – perhaps not anymore – but earlier it was a problem that they would just respond 'yeah, yeah, yeah' to everything, and then you would notice after a while that they had not understood at all what we were even talking about.''* (R6)

An additional challenge may arise in the delivery of safety communication as it usually follows a more low-context structure where communication is more direct and standardized. Hence, if the communicator and the recipient view the communication situation through different expectations, this disparity may lead to misunderstandings. Thereby, the culturally embedded factors and communication styles have a direct impact on how supervisors consider employees' responses and perceived comprehension.

> *''... It depends a lot on those kinds of cultural backgrounds, as things like that can be so deeply rooted in people. And then it kind of prevents them from asking questions. So, they make their own assumptions and interpretations. […] like in all communication, in a way – if, for example, the safety instructions or the message is given, and you don't understand it, then there is always that threshold, of course, how do I follow an instruction that I don't understand.'' (R7)*

> *''Let's say that the sort of traditional Finnish way of giving feedback can, at worst, even deeply hurt the feelings of someone from a different background because they may not understand the very straightforward way of expressing something. So, some people may feel that their work performance is being evaluated, or whether they are a good or bad employee, if, for example, there is a misunderstanding about an instruction and they then receive feedback about it.''* (R8)

It was also evident from the participants' answers that the way employees communicate and what communication customs they see as appropriate are affected by culturally associated norms, values, beliefs, and views. This argument is supported by a previous study by Ting-Toomey & Dorjee (2019, p. 14), which has demonstrated how individuals consider, perceive, respond, and act in communication situations based on their underlying cultural background. As can be noted from the previous examples, it can therefore be considered that employees of different cultural backgrounds have their own standards and expectations for behaviour, which is often why they tend to presume others will follow these as well. This can further reinforce the misunderstanding related to safety communication.

As discussed in this chapter, the interview data highlight specific cultural communication barriers, namely two distinct dimensions (see Figure 6). Employees' varying perceptions of risk and safety form the first dimension, while the other relates to their attitudes and motivation towards safety and compliance. Both will be discussed in more detail in the following sub-chapters.

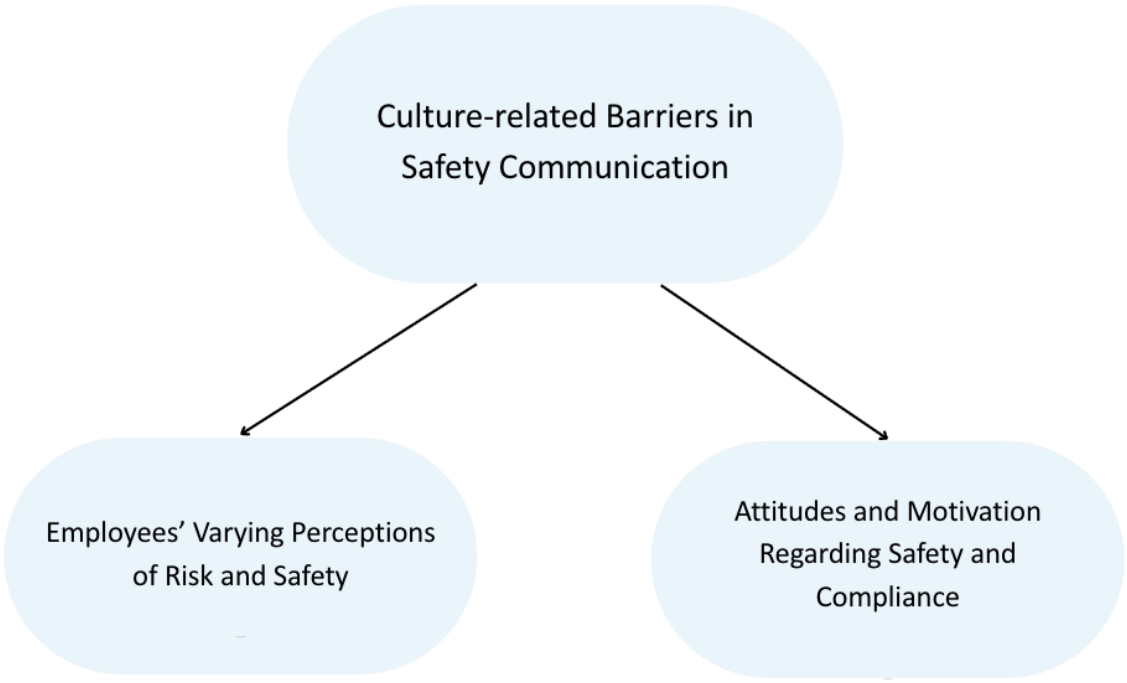

Figure 6. Culture-related barriers in safety communication.

4.1.1 Employees' Varying Perceptions of Risk and Safety

The perception of safety and response to risks emerged in the interviews as a prominent factor shaping the understanding of safety communication. Several interviewees stressed that employees' sense of risk has a direct impact on how they internalize safety information. The following examples illustrate how cultural barrier in communication is not merely limited to varying communication styles or norms but are additionally rooted in how individuals perceive potential threats and experience occupational safety.

> *''Perhaps in some ways, security is perceived as a kind of hindrance or obstacle. That in certain cases with certain cultures, bypassing some security boundaries or making the work easier has been observed. There have clearly been such situations. We are trying to address this, but there is a tendency for certain groups of people to act this way.''* (R1)

> *''We have people with backgrounds where it may be that in their native language there isn't even a word for occupational safety or health and safety at work – such a word simply doesn't exist. So, in a way, they come here to a*

> *Finnish working environment that is highly regulated and guided by laws and regulations, where things need to be justified, explained, and people need to be reminded why things must be done in a certain way.''* (R4)

> *''Well... maybe they do not have experience with Finnish culture or what working life is like here. So, so, let's say that if you have come from a certain country, then, well, there probably is not even such a word as occupational safety organization, for example.''* (R5)

The interview data underscores the significant impact that cultural frameworks have on how workplace safety is viewed, understood, and eventually implemented. Some employees appear to disregard safety regulations or view them as limitations, which aligns with Kouabenan's (2009) assertion that individuals' cultural framework affects their overall awareness of safety and understanding of risks and responsibility. These underlying interpretations thus impact not only whether safety policies are adopted, but also how effectively they are understood and applied in practice by employees.

> *''... Maybe the foreigners don't understand it (safety) if they have slightly different experiences in the background.''* (R6)

> *''Of course, these things are probably quite different in the country of origin. That is, if someone has acquired their education there or in Finland, it can make a difference. Therefore, perhaps the education acquired abroad may not necessarily aid in understanding the Finnish safety culture and related matters.''* (R2)

Furthermore, the responses reveal that employees with diverse cultural backgrounds may find Finnish safety culture and its specific regulations unfamiliar or hard to grasp since the concept of safety itself may vary across cultures, with varying levels of importance, in certain situations being completely absent. Accordingly, cultural differences in how risks and safety are perceived may explain difficulties in comprehending and adhering to the guidelines, rather than these challenges stemming purely from unwillingness. The following sub-chapter will explore attitudes toward instructions related to

safety and employees' compliance in more depth, with special emphasis on the impact of cultural perspectives.

4.1.2 Attitudes and Motivation Regarding Safety and Compliance

The second theme emerging from the interview data, related to culture-based communication barrier, concerned how workers perceive and value following safety protocols based on their attitudes and motivation. Whether the given guidelines are completely followed or viewed as more adaptable depends on these attitudes, which also affect how they are eventually understood. According to the interviews, employees' views on adhering to safety policies vary, particularly when having a multicultural and multilingual workforce. Furthermore, the interviewees noted several situations in which employees disregarded or treated safety instructions as optional rather than viewing them as mandatory.

> *''There have been situations where the employee's behaviour has had an impact (on the understanding of safety communication). For example, one of the supervisors intervened in a situation where a worker was about to leave with a mast while another worker was walking just behind him. The foreman immediately pointed out that we have a rule: you must not walk behind equipment that is about to move – a safety distance must be maintained. The worker then responded, ''Nothing has ever happened here before''. This clearly shows an underlying attitude problem.''* (R4)

> *''The attitude, that's the big problem. The attitude of the recipient and the attitude towards security.''* (R5)

These examples highlight how employees' cultural and personal attitudes and motivation are closely linked to their adherence to safety guidelines, making it more than merely a matter of comprehension. This view is supported by the research conducted by Kouabenan (2009), which demonstrates how cultural frameworks influence employees' attitudes and behaviours toward safety. It is evident from the interview data that

context or perceived risk appears to influence adherence, with rules being followed only after an incident or when the employee personally feels they are necessary and required to follow. A lack of internalized motivation and attitude for proactive safety behaviour is reflected in this reactive mindset, which implies that for certain individuals, compliance is driven more by outside regulation than by internal commitment.

> *''There have been those issues with attitudes. […] For example, the use of hearing protectors – there have been cases where a person has just said that it is their own business if they do not use them. At that point, we have had to emphasize that in Finland, there is such a thing as employer responsibility, so, we are not interested in whether the employee wants to wear them, but they are required to wear them.''* (R6)

The example above further illustrates how culturally embedded attitudes and motivations can influence how employees comply with safety instructions. This is supported by Bust et al. (2008), who state that people's cultural backgrounds influence how they perceive and understand the statements or practices of others. Employees from diverse cultural origins may therefore reflect their attitudes onto common safety protocols, especially if they assume that others share these standards. These differences can result in miscommunications and noncompliance, not necessarily out of defiance but rather because of disparate internalized, culturally based attitudes about individual responsibility and safety.

4.2 Language-related Barriers to Safety Communication

The interview data indicated that in multicultural and multilingual organizational settings, linguistic communication barrier have a substantial impact on how different safety instructions are accessed, comprehended, and acted upon. Beyond mere language skills alone, these challenges affect the dependability of message reception and the clarity of information conveyed in everyday safety-related interactions. What emerged from the interview data is that the language barrier may frequently exist simultaneously with other communication barriers, resulting in special combinations of misunderstandings.

> *''Of course, language barriers are a challenge. […] Sometimes you must go the extra mile to ensure that all employees have understood.''* (R1)

> *''Well, it's purely the language (the challenge). The language, that whether it's understood, or what kind of words are used.''* (R7)

Drawing on the interview data, three distinct but intertwined dimensions of language-based communication barriers were identified (see Figure 7). Firstly, it was recognized how the proficiency of language relates to the comprehension of safety instructions. As for the second dimension, it was found that the complexity of safety terminology hinders the internalisation of safety communication. In addition to these two dimensions, the data also revealed challenges related to multilingual communication and the use of informal interpreters, representing the third and last dimension.

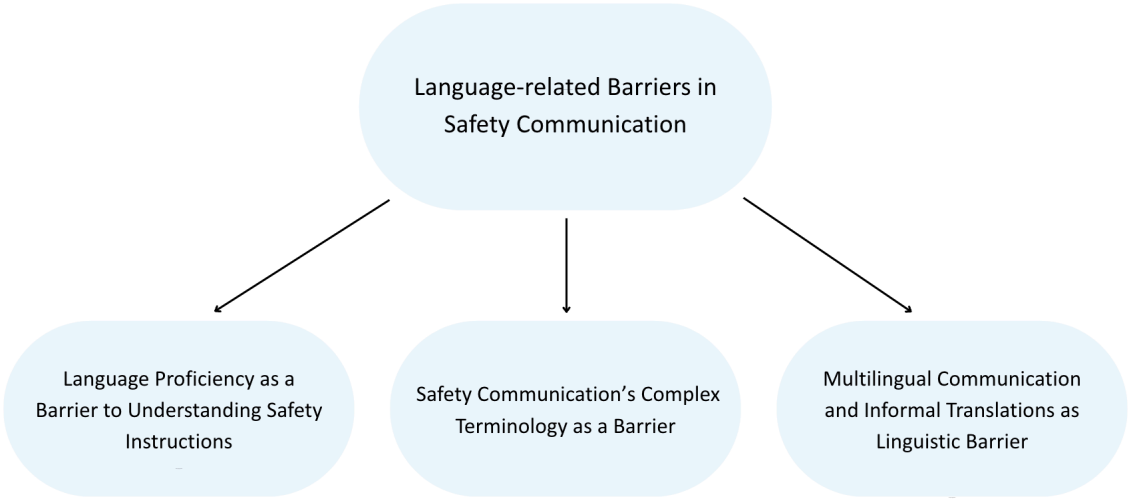

Figure 7. Language-related barriers in safety communication.

Figure 7 presents the categorization of language-related communication barriers along three core dimensions that emerged from the interview material. Similarities with these findings can be observed in the study by Lindhout et al. (2012), which highlighted limited literacy skills, comprehension issues with written instructions and materials, and the effects of multiple foreign language presence as the three primary aspects of the

linguistic barrier in occupational safety contexts. Understanding the complexity of these dimensions is necessary for developing communication approaches that are both effective and accessible. To further emphasize their significance for safety communication practices in diverse workplaces, each of the identified dimensions will be explored in more detail in the upcoming sub-chapters.

4.2.1 Language Proficiency as a Barrier to Understanding Safety Instructions

At its simplest, the ability to understand safety communication can be affected by limited language skills. The interview data demonstrated that the challenges regarding language proficiency were present in nearly all organizations, regardless of the official working language. Several respondents noted that adequate Finnish skills, or in some cases English skills, are expected within the workplace. However, employees' actual language proficiency appears to vary considerably.

> *''... People's language skills vary. There are a couple of individuals who speak it as their mother tongue, and then there's the person who has just barely enough language skills.''* (R4)

> *''Perhaps something that I have noticed is that their (employees') language skills might not be quite adequate.''* (R1)

> *''… Finnish language skills, even strong Finnish language skills, may not always be enough. […] But there are people who have faced great challenges during orientation in understanding things as well as we would hope.''* (R8)

While some employees have a good command of the working language, others have such limited language skills that the key content of safety communication does not reach them as intended. For example, during the orientation phase, language skills deficiencies are evident in situations where the employee is unable to understand the content of the communication in the expected way. Therefore, even if an employee has a formal command of the working language, it does not always guarantee a practical understanding of the message.

> *''We require a certain level of understanding of the Finnish language to ensure that the instructions are understood. We have also noticed that this is not always the case. First of all, reading comprehension is quite often difficult for people who have not attended school here. So, it has been noticed that some adjustments have had to be made.''* (R1)

The interview data also revealed how the linguistic challenge concerns the comprehension of written safety materials. Regarding this, it was stated that this has been particularly noticeable among employees with a foreign background, forming the need for adjustments. Nevertheless, the data also indicates that difficulties in comprehending written safety communication can arise even among native speakers, suggesting that the linguistic challenges are not exclusively tied to a foreign language background.

> *''... There are quite a few people who don't understand the information just by reading it – even if they share the same mother tongue as used in the workplace.''* (R4)

The above example demonstrates how being proficient in the local language does not ensure that the message will be understood, as reading comprehension issues can still prevent the desired understanding. In other words, written safety instructions alone are usually not enough to guarantee that employees fully understand them equally. This is in line with the study by Lindhout et al. (2012), who note that safety communication provided merely through written content may ignore those with limited reading comprehension or who are not proficient enough in the language used in the materials.

> *''There may have been comments, at least in the past, from some non-natives who don't speak the local language, who said that ''This intranet message completely missed me – it was only in the local language.'' […] Multiculturalism becomes visible in situations where some employees lack the language skills to manage the communication that has been carried out.''* (R3)

The example above emphasizes the practical consequences of language barriers in workplace communication. Critical safety information may be inaccessible if employees' varying levels of language proficiency are not addressed enough in safety communication, or if multilingual communication is lacking. Consequently, the variation in linguistic competence can remain overlooked, which has a direct impact on the ability of employees to respond to instructions or safety messages.

4.2.2 Safety Communication's Complex Terminology as a Barrier

The specialized nature and complexity of terms of safety-related terminology was stressed in the discussions with the interviewees, showcasing the second dimension of the language-based communication challenges. Regardless of an employee's proficiency in the official working language, comprehension of the intended message may still be hindered by using complex terminology or by information presented in an unclear or illogical language. Consequently, the content of safety communication may present difficulties even for native speakers, in addition to those from different linguistic backgrounds.

> *''Sometimes the instructions are written in such a complicated way that even a native Finn can find them hard to understand. And of course, we have many different learning difficulties that employees may have. […] So it would help if the instructions were written as simply and briefly as possible.''* (R2)

The issue here is not merely with the language itself, but rather with the structure, specialized vocabulary, or broadness of the utilized language. Usually referred to as an expert language barrier, if the expressions or terms used are unfamiliar to the recipient, they can create a barrier to understanding the message even for native speakers (Maaß & Rink, 2024). In this regard, a text's level of comprehensibility is greatly influenced by its level of specificity. As can also be seen from the following examples, if communication contains jargon or if the information is obscure in any other way, the need for easy language might arise.

> *''If you include any words or expressions that are too difficult to understand, they won't be understood. And this applies to both Finnish and English instructions.''* (R4)

> *''It does, of course, take more effort and energy for me, too, to understand, for example, the technical definition of something written in English than if it were written in Finnish. So, in the same way it is that when someone reads a safety instruction written in English, whether it's simple or more complex, do they understand it correctly?''* (R7)

The interviewees' views reflect that even when an employee is theoretically able to understand the content of the message, the risk of misunderstanding remains if the message contains technical terms or expressions. Thereby, the complex or unfamiliar vocabulary combined with an unclear format can result in employees' inaccurate or incomplete interpretation of safety communication. In other words, employees may overlook important points and thus neglect to properly follow essential safety guidelines.

4.2.3 Multilingual Communication and Informal Translations as Linguistic Barrier

The third dimension related to language-related communication barrier found in the interview data was the challenges of navigating multilingual communication in the workplace. Despite Finnish being usually the official working language, multicultural teams require translation or linguistic adaptation to provide thorough comprehension. The challenge becomes especially evident when translation practices in an organization's communication policy are informal or inadequate. However, the methods by which this adaptation takes place are frequently informal, and in certain organizations, supervisors depend on multilingual colleagues to translate communications into the native languages of the employees.

> *''If it is known that native speakers of a certain language are working in a specific area, a targeted notice is prepared in that language. Of course, this requires someone proficient in the language to check that the content originally in Finnish is accurately conveyed in the other language.''* (R4)

The use of bilingual supervisors or colleagues as interpreters to communicate with the workforce about safety guidelines or practices is also noted in the study by Lindhout et al. (2012). As can be observed from the interview data, the use of these supervisors as translators is not often official, and there is not necessarily a consistent policy on their use within the workplace. Additionally, the person must have adequate knowledge of the subject in both languages so that the meaning of the content remains the same when translated into the other language. Hence, the clarity and accuracy of safety-critical information might be weakened by inaccuracies resulting from unofficial translations.

> *''If necessary, a translator or other similar tools can be used. So yes, there is the possibility of using them. But it is a different matter are they and how much they are used in the units.''* (R2)

> *''... I do the training in Finnish, but then the person who speaks a foreign language has someone next to them who translates and explains the matter. So, then, for example, it's the supervisor or a colleague who translates it into a language that they understand. […] But we're not professional translators, so in a way, there should almost be a professional translator involved to make it truly good quality.''* (R7)

Moreover, the data demonstrate that organizations may not necessarily have a favourable view of the usage of translations in general. Consequently, even though the diversity of the languages within the workplace is wide, based on several responses, the use of translations is mainly opposed because of concerns that they may impair language learning or cultural integration.

> *''… For a long time, we wanted to think as a company that we did not want any instructions in other languages, because we had the idea that if English was used a lot in the work community, it would slow down the learning of Finnish. So, we have not translated any of the safety instructions into English.''* (R2)

> *''In safety communication, considering the working language is important, and there has been discussion on a principled level about what kinds of things need to be translated. It has been a two-way discussion, so that everyone can access the documents and information where it is truly necessary to know and understand the exact details and not just roughly.''* (R3)

From the interviewees' responses, it can be noted that the delivery of multilingual safety communication in the workplace entails several practical and organizational challenges. Although companies acknowledge the importance of ensuring that all workers have the capacity to understand the various safety-related information in detail, presenting matters in languages other than the official working language is, however, often perceived as somewhat complex. As a result, such practices are applied inconsistently or, at times, insufficiently. The employment of languages other than the official working language – even English – in safety communication seems to be context-dependent, and often dependent on the language proficiency of specific employees rather than being a carefully incorporated practice.

> *''… It has mostly been the responsibility of the unit manager to ensure that the employees with a foreign background in their own unit understand what the instructions say and what they actually mean. We do have some general guidelines now translated in English. But yes, we are still very much in the early stages with that.''* (R1)

> *''But, exactly this, what it (translation) requires from the communication side, that's still a big challenge for us. All this kind of basic material has been translated, but beyond that, our communication is still in Finnish.''* (R9)

4.3 Current Organizational Practices in Ensuring Accessibility Safety Communication

According to the interviews, safety in its broader sense plays an important role in the day-to-day work of the organizations and is intertwined with many aspects in the workplace, and should always remain a constant and visible element. This indicated that safety is viewed as an integral part of the company's varied operations and as an equal responsibility among all employees. The associated safety communication is considered an essential part of the safety culture in the workplace, through which a safe working environment and practices are maintained. The interviewees identify communication as a highly significant function that requires daily, consistent, and thorough focus.

> *''Safety communication and safety, as the saying goes, "safety first". So, you should always start the workday with that.''* (R1)

> *''Quite a lot is about communication - that safety at work remains an important theme in daily work all the time.''* (R4)

> *''Communication is very important to us, and of course, we want to keep improving it. Safety has been a topic that has been a constant theme for us to this day, and one that is always topical. It is a topic that will never disappear.''* (R5)

The responses also revealed the perspective of supervisors on how accessible the current safety communication is. Although interviewees acknowledged the significance of ensuring that safety information is understandable to all workers, the emphasis was mostly on the mere availability of information rather than ensuring its accessibility.

> *''At least reasonably. Of course, there is always room for improvement – you can always think about how, and in what way, safety communication could be brought to an even personal level as it were. We are always thinking about how safety communication could be further developed.''* (R4)

> *''I don't think so – it's not (accessible). […] So, here's definitely room for improvement.''* (R8)

Even though the interviews revealed that safety communication is an area of continuous improvement, there is a shared acknowledgement that all employee groups may not be equally reached by the current practices, indicating that the current safety communication is not at the desired level from the accessibility perspective. One interviewee noted that the current safety communication does not fully reach employees who speak other languages:

> *''Well... the way I see it, we're not reaching those who don't speak Finnish.''* (R9)

The above example reveals how there is a disconnect between the intended aim and the actual implementation of accessible safety communication. Despite companies'

efforts to ensure accessibility, certain employees, especially non-native speakers, may remain excluded from communication in practice, undermining the success of these initiatives. This presents a broader issue within the organizations, namely the tendency to place the responsibility on employees to understand, rather than adapting communication practices to suit a diverse workforce. The following sub-chapters will proceed to delve further into the practices that companies have in place to support current accessible communication.

4.3.1 The Use of Visual Aids and Easy Language to Support Accessibility in Safety Communication

Based on the interviews, the use of visual methods and easy language appeared as the two current key strategies for delivering accessible safety communication. With the aim to guarantee that safety messages are clear and understandable to all employees regardless of their level of education, language skills, or any potential reason of a cultural nature, these means of communication are seen as beyond simply supportive tools but as necessary strategies for accessibility.

> *''We have some very clear visual pictures for when starting employment. And in Finnish, we have made a PowerPoint guidance material with pictures of the bakery, sign marking exit points, and so on. A few so-called accident scenarios are also illustrated, showing both verbally and visually what has happened and what kind of damage has occurred. So there's a lot of visual component. It's really the visuality and that kind of short communication. Maybe that's the key.''* (R1)

> *''But that kind of visual (communication) works, so that you understand how something needs to be done visually. So the understanding isn't dependent on small details in some written instructions that you should or would read. So it has worked really well in my opinion.''* (R3)

When discussing visual elements as a means of accessible safety communication with the interviewees, clear commonalities emerged in their responses. Firstly, particularly in specific worksite settings where written material alone would not be adequate, interviewees acknowledged the use of pictures, pictograms, diagrams, and explanatory signs to enhance message comprehension. These are seen as effective to use to communicate and warn about risks, regulations, and policies. Moreover, the responses indicated that visual aids are frequently used in display screens and digital signage to facilitate quick recognition and understanding of important safety messages.

> *''From what I've seen in the break room, the messages on the information screens are really clearly summarized. So, when you look at them, you're like, ''Ah okay – got it.'' So there's nothing unnecessary. Pictures, colours, large fonts have been added to the instructions to make it as clear as possible.''* (R5)

As can be seen from the previous example, in addition to the use of mere visual aids, the clear summarization of information in written form is emphasized when presenting instructions. In other words, this refers to language that is clear and simple, and understandable to the employees. This is seen to facilitate comprehension, particularly in situations where information must be internalized quickly.

> *''If you think about info screens, for example, you have to be very careful and consider what the key message is. So very short, clear sentences – preferably main clauses, no jargon, and preferably with pictures. You really need to think that if someone sees the message while passing through the hall and glances at, you know, a sign or a display, the message should be presented as clearly as possible, in an instant. From those two, it consists of: very clear and simple language, and then pictures beside it.''* (R4)

> *''Well, images are used a lot. I don't know if it's exactly easy language, but we produce the documents and all the material and all the communication in a language that they understand. That's extremely important. […] That's what I'm doing anyway, that it (communication) would be in a language that they (employees) can easily understand.''* (R8)

> *''As easy language as possible is important in communication – and that also applies in Finnish.''* (R4)

The interviewees' responses highlight that the use of easy language has been recognized in companies as an effective tool for communicating safety-related matters to enhance comprehension and support communication accessibility. This view is also supported by Maaß (2020), who notes that easy language aims to improve comprehensibility by simplifying language through commonly known words and straightforward grammatical and structural forms. However, as can be shown by the following examples, the actual implementation of easy language remains informal and inconsistent. In such cases, its use may fall outside strategic communication planning and be left to the discretion of individual supervisors.

> *''We try to make sure that workplace communication is in very easy language. Actual easy language translations or such have not been used yet. It's been a while since we've discussed it internally – I know that it is possible. But I believe that our basic communication is quite easy. But of course, perhaps at some point it probably needs to be evaluated whether it is easy enough and done in the right way.''* (R7)

> *''… It (easy language) has come up when making this guidance material, so we've tried to make it according to that. But, well, I don't know… it's just more like a recommendation, not really any kind of guiding model. And I don't personally write very easy language texts as such, but I try to make them as understandable as possible.''* (R9)

4.3.2 Supervisors Role in Facilitating Accessible Safety Communication

The interview data reveal that supervisors frequently have a central responsibility in ensuring accessibility to safety communication. In this regard, their duty is not only to deliver safety messages to employees, but also to ensure and verify that the messages are understood and internalized thoroughly by employees. The emphasis here is particularly

on the notion that their contribution has a strong impact on whether the safety message reaches employees in an understandable form.

> *''Surely, every employee must receive the key safety instructions in a way that they can understand and internalize them. It is then up to the organizations and the supervisor to ensure that every employee has received the instructions in the right way.''* (R7)

> *''As a supervisor, I have a strong responsibility to discuss and repeat them (safety matters) so often that they really become embedded in the team or department. […] Discussing and thinking about safety is one of the most important tasks of a supervisor.''* (R1)

On the other hand, safety communication should be seen as a two-way process in which employees also actively participate by expressing questions or requesting clarification when necessary. This does not, however, lessen the supervisor's fundamental duty in ensuring that communication is conveyed in an effective and accessible way. The supervisor is first and foremost responsible for establishing an environment where such interaction can take place for a diverse workforce and ensuring that safety communication is accessible for everyone.

> ''*... Also, that supervisors understand their own responsibility, that it is their task to ensure that the recipients have actually received the message. That, in a way, they remember to communicate that each employee has their own responsibility to receive the information and ask questions if needed. So, the role of the supervisor is very important there.''* (R7)

The responses also reveal how the activity, communication styles, and management styles of supervisors influence the implementation of safety communication. Accordingly, the role of the supervisor is at best reinforcing, but in some cases, quite passive. This is strongly linked to their own perceptions of safety and what they see as important information, decisively influencing how actively and extensively the matters are communicated. Consequently, as communication eventually takes place at the unit and

supervisory levels, the guidelines created at the top level of the organization might not reach their intended audience in practice.

> *''... It's always up to the manager of the unit, like, how important they in general see occupational safety and what they want to communicate. I know units where the unit manager very actively communicates about occupational safety and brings it up in discussions. But then there are certainly units where it's hardly ever discussed, and maybe only those kinds of top-level instructions are given that we give on the company level.''* (R2)

> *''One of the challenges is that we have different kinds of supervisors. There are different generations, and the leadership styles are really varied, even though we've tried to standardize them. Some supervisors are very active – they even seek out information and have discussions with their teams. But unfortunately, I've to noticed in some teams that no matter how much information I provide, it often stays at the supervisor level and doesn't reach the most important target group.''* (R8)

In other words, the interview data demonstrate how communication practices often remain inconsistent at the unit and supervisor level. This variation, in turn, influences how safety communication is delivered and received in the workplace. Such variations may result in disparities among workers regarding the accessibility and comprehension of safety messages, since the availability of an understandable format of the message may be significantly influenced by the communication styles of specific supervisors. Thus, organizational policies do not determine the accessibility of safety communication solely since supervisors' communication habits, engagement, and priorities play an essential role in it.

> *''Since we have around 500 different units, we also have 500 different supervisors, each of whom works a bit differently. For some, communication is easier, and they are able to do it in a more understandable way than others. So, there's probably a lot of variation – everything in between, I would say, can be found in our organization.''* (R2)

4.4 Suggestions to Improve Accessibility of Safety Communication in Multicultural and Multilingual Context

The data analysis revealed recurring views regarding how to improve the accessibility and general effectiveness of current safety communication. Accordingly, based on the communication barriers identified from the interview data, as well as existing organizational strategies and methods, three suggestions were made that can be considered as potential approaches to enhance the accessibility of safety communication for the commissioning company of the study and its client companies.

4.4.1 Standardizing Translations of Safety Communication to Ensure Accessibility

The interviews revealed recurring concerns about the linguistic accessibility of the safety communication. Guidelines and information given merely in the local language are not always sufficient in a multilingual and multicultural workplace, as employees are coming from different language backgrounds and with varying levels of language proficiency. Companies should consider, in each case, whether a single language version, such as English, as mentioned in the example below, is sufficient to meet their employees' needs.

> *''Maybe it's... I don't know, for example, maybe it's about the different language versions, and the fact that we have so many languages and cultures out in the field. We're not just talking about English speakers, but we have a lot of people from different cultural backgrounds. So, whether just the English translations are enough. And in a way, whether supervisors and field workers need even more advanced translations.''* (R7)

Harmonizing translations by the target group increases accessibility as it ensures that different language groups are provided with the same level of consistent and accurate safety communication. Although multilingualism and the need for translations are recognized by the companies interviewed, as in the example above, in many

organizations, however, the use of translations is informal, mainly based on the support of multilingual colleagues, or they are not seen as particularly necessary (see chapter 4.2.3), and official translators were used in practice only in one company:

> *''All the translations have been done by a translation company, so we haven't probably translated anything other than a few very simple things by ourselves regarding this project.''* (R9)

Therefore, based on the interview data, the use of professional translations to translate messages would be essential to apply to organizations' practices. This would not only foster the consistency of communication as the content of the message remains equivalent across different formats, but also improves equal access to information for employees and minimize confusion and misunderstandings.

4.4.2 Strengthening Supervisors' Cross-Cultural and Linguistic Communication Skills

The interviews identified a clear need for communication-specific training or courses, particularly aimed at supervisors, to address the communication challenges of multilingualism and diversity of cultural backgrounds. The interview data revealed that only one company had carried out this sort of training, but other responses stressed how companies have not provided enough discussions, training, or courses on how to communicate with individuals from different cultural or linguistic backgrounds.

> *''We've had training on how different cultures understand certain wordings. So we've had that kind of training, and it has been quite good for me too. It was quite eye-opening for me, too, like how certain things should be communicated to people from specific cultural backgrounds.''* (R1)

> *''… But no, I don't think there has been sufficient discussion or training (on communicating with a diverse workforce).''* (R8)

> *''I don't recognize that we've had any specific training for that (on communicating with a diverse workforce). […] Indeed, it would be helpful if someone could tell us what is the best way to communicate.''* (R9)

Supervisors often play a key role in the practical implementation of safety communication among employees, and without adequate competence to communicate in a diverse work environment, their communication efforts may be inconsistent. As previously discussed in this study (see chapters 4.1–4.2), the diverse working environment poses its own unique challenges to delivering accessible safety communication. Therefore, to ensure that companies can provide accessible safety communication to all employees, the training or courses aimed at supervisors should specifically focus on how communication can consider the linguistic and cultural factors that affect the understanding of the message. Additionally, to strengthen accessibility, the use of easy language in delivering safety communication and evaluating the accessibility of the safety communication should also be covered. This would help supervisors to better promote safety communication in a coherent way within their work unit or team, while strengthening the quality and excellence of communication, ultimately contributing to the equal implementation of safety culture within the organization.

4.4.3 Reinforcing Multimodal Communication by Videos to Reduce Comprehension Gaps

The use of multimodal communication can provide effective communication alternatives, especially concerning workers with limited language proficiency, lower reading comprehension skills, or those for whom written materials or the technical language at some level represents a communication barrier. Regarding this, the interview data raised desires, such as the use of safety videos and communication materials with visual presence to support the other forms of communication being used.

> *''We could continue to invest in using even more images – maybe even short video clips. We could make even greater use of still images and videos in the future.''* (R4)

> *''That would be then in visual form. So, I would like to see more implementations of that. And I would like to have some kind of clear occupational health and safety videos. I would like to use that kind of video material in the communication.''* (R1)

> *''Videos are really effective. They help to grasp the core message easily in the moment, rather than it being explained in some document. In some trainings, we've made safety-related videos, but currently, they (videos) are not in use. […] It's definitely not a bad idea to use them more often.''* (R3)

The interviewees' responses indicated that although multimodal communication is being implemented in other ways, as the use of visual aids (see chapter 4.3.1), videos are rarely, or at least not extensively, used to support current safety communication. On the basis of the interview data, written communication supported by visual elements and audiovisual methods, as the illustrative videos highlighted in the examples, is desired. This could help to improve not only the effectiveness of safety communication but also its accessibility. This observation is supported by the views of Bunt & Beun (2001, p. 3) and Hirvonen et al. (2020, Conclusions), who underline how integrating several communication methods can improve accessibility in communicating and enable more efficient information delivery.

To further enhance message comprehension, multimodal communication simultaneously employs multiple communication methods, including language, audio, and visuals (Stöckl, 2004, pp. 11-15). Together, these many formats enhance and support one another to provide a message that is more understandable. Multimodal communication is not limited to videos, but is supported using images, infographics, or even audio instructions. Therefore, multimodality enables employees to receive communications in a format that meets their specific needs and background, thus supporting the comprehensibility of communication.

5 Conclusions

The last chapter of the research concludes the study by presenting the main findings related to the study's objectives. Subsequently, the managerial implications are also covered, meaning how the results of the research can be used in practice to improve the accessibility of organizations' safety communication. The study's limitations and recommendations for future research proposals conclude the final section of the study.

5.1 Summary and the Most Important Findings

This thesis aimed to *examine the accessibility of safety communication in multicultural and multilingual organizations*, and it was achieved through the three objectives set for the study. To increase the accessibility of safety communication in diverse work environments, the study additionally explored communication-related barriers influencing employees' comprehension and application of safety communication.

To address the first objective, *identify key communication barriers that hinder the comprehension and accessibility of safety-related information in multicultural and multilingual workplaces,* a theoretical framework was developed on communication barriers and their connection to the accessibility of safety communication within the context of multicultural and multilingual organizations. The second chapter of the research covered this objective by outlining a theoretical foundation built on prior academic studies. Moreover, a theoretical framework was created to integrate the main ideas and themes of the research (see Figure 5).

Prior research in this area has strongly highlighted how the identified barriers to communication – cultural, linguistic, cognitive, and expert knowledge and language – serve as the main obstacles to achieving accessible safety communication and limiting communication to differing degrees (see e.g. Zara et al., 2023; Tenzer et. al, 2021; Maaß & Rink, 2024). These barriers can take various, frequently very individual forms, which adds to their perceived complexity. Individuals' communication needs and personal

backgrounds have considerable influence on how they form, appear, and contribute to understanding, and therefore, this study viewed communication barriers and accessible safety communication as interconnected. The contextual factors, as in this study, a multicultural and multilingual organizational context, inherently influence the complexity of communication, since differing linguistic abilities, cultural norms, and communication styles may raise the possibility of misunderstandings or uneven access to information. The execution of accessible safety communication is made more challenging by this contextual setting, which not only poses additional barriers but also significantly affects how communication is understood, received, and acted upon. Therefore, identifying and understanding these underlying communication barriers is essential for achieving accessible communication that reaches people with diverse needs and perspectives.

The second objective of the thesis was to *examine how these communication barriers influence employees' understanding and application of safety communication in diverse organizational environments.* Drawing on the interview data, two dimensions were identified to be associated with culture-based communication barriers: employees' varying perceptions of risk and safety, and attitudes and motivation regarding safety and compliance. In practice, employees' views of risk and safety can shape how they interpret and internalize safety communication, ultimately influencing their responses to the content of messages. Conversely, the interview data indicated that communication barriers rooted in culture can manifest in differing attitudes and motivation regarding safety, underscoring the significant role of culture in how messages are understood and responded to.

Based on the interview data, communication barriers linked to cultural factors can be strongly interrelated in the daily interactions of employees in relation to how they comprehend safety-related information. An individual's cultural framework strongly shapes what is perceived as a risk and when a situation is considered dangerous (Kouabenan 2009), thus influencing the understanding and application of safety communication. Hence, if an employee has a differing understanding of what constitutes safe working practice, either from previous work experience, educational background, or the way

safety is viewed in one's own culture, safety messages can be overlooked or not given the required level of attention. The lack of understanding is not, however, always just a lack of knowledge, as attitudes and motivations based on cultural background influence the application with instructions and information. This was found to be linked to internal motivation, with rules often enforced only when employees feel the need or after an incident occurs. Such aspects underscore how culturally rooted communication barriers may hinder the proper comprehension of safety instructions, resulting in misunderstandings and inconsistent compliance.

Regarding the second objective of the study, the interview data additionally revealed three dimensions of language-related barriers hindering employees' comprehension of and employing safety communication. Firstly, variation in employees' language proficiency makes it difficult to understand information as intended, meaning that limited language skills or poor reading comprehension can hinder the internalization of the message. The second dimension identified from the data concerns the complexity of the terminology used in safety communication. As a result, interpreting specific terminology or language can pose challenges to comprehension (Maaß & Rink, 2024), which may lead to instructions being disconnected and inconsistent in their application. The third dimension recognised relates to multilingual communication and the use of informal translations. The presence of multiple languages within multilingual organizations necessitates the use of translations, yet informal translations can alter the initial message, leading to differences in how the information is received and eventually applied in practice.

The third objective of the research was to *analyze the existing practices companies use to ensure accessible safety communication, and to propose improvements to enhance the inclusivity of safety communication based on the findings.* The interview data revealed that, although accessible safety communication is acknowledged as important, its current implementation within organizations remains uneven and, in some cases, inadequate. While some companies employ communication methods intended to enhance accessibility, their practical application is often inconsistent, and the practices are

frequently not tailored to accommodate the diverse backgrounds of employees. In particular, organizations' communication methods do not properly prioritize the use of visual aids and easy language, even though these practices are seen as essential as part of communication accessibility (Hirvonen et al., 2020, chapter 13; Hirvonen et al., 2020, Conclusions). As these practices have not been fully integrated in organizational communication procedures, their application remains highly context dependent, which in turn impairs accessibility.

Regarding the practical implementation of safety communication, the interview further revealed that supervisors' initiatives and active involvement play a major role. Along with conveying safety instructions, they are accountable for making sure that the employees genuinely comprehend and follow them. In this regard, their responsibility lies both in ensuring that safety information is actively communicated in an accessible manner and in fostering a two-way communicative environment that enables employees to openly pose questions or seek clarification. Accordingly, the practical implementation of accessible safety communication is also strongly influenced by supervisors' communication approaches, level of commitment, and prioritization.

Concerning the thesis's third objective, three recommendations for enhancing the accessibility of safety communication were formulated based on the interview data, taking into account the communication barriers identified. The first suggestion proposed is to standardize the content and quality of translations. This improvement contributes to ensuring that all employees, regardless of language proficiency, are able to access the same level of key safety information. Conversely, the second approach focuses on the strengthening of supervisors' cross-cultural and linguistic communication skills. This provides a foundation for effective interaction with the target audience, as it enables them to foresee communication barries, thereby improving their ability to establish more clearer and effective interactions across diverse employee groups. The final improvement involves incorporating videos to reinforce multimodal communication, thereby improving understanding of the conveyed messages. By presenting information

in formats that accommodate employees' diverse needs and backgrounds, accessibility is further promoted, supporting more effective comprehension.

Figure 8 visualizes the research results obtained from empirical data, combining the identified communication barriers and communication practices to enhance the accessibility of safety communication. The figure is refined and broadened from the theoretical framework through insights gained from the empirical analysis.

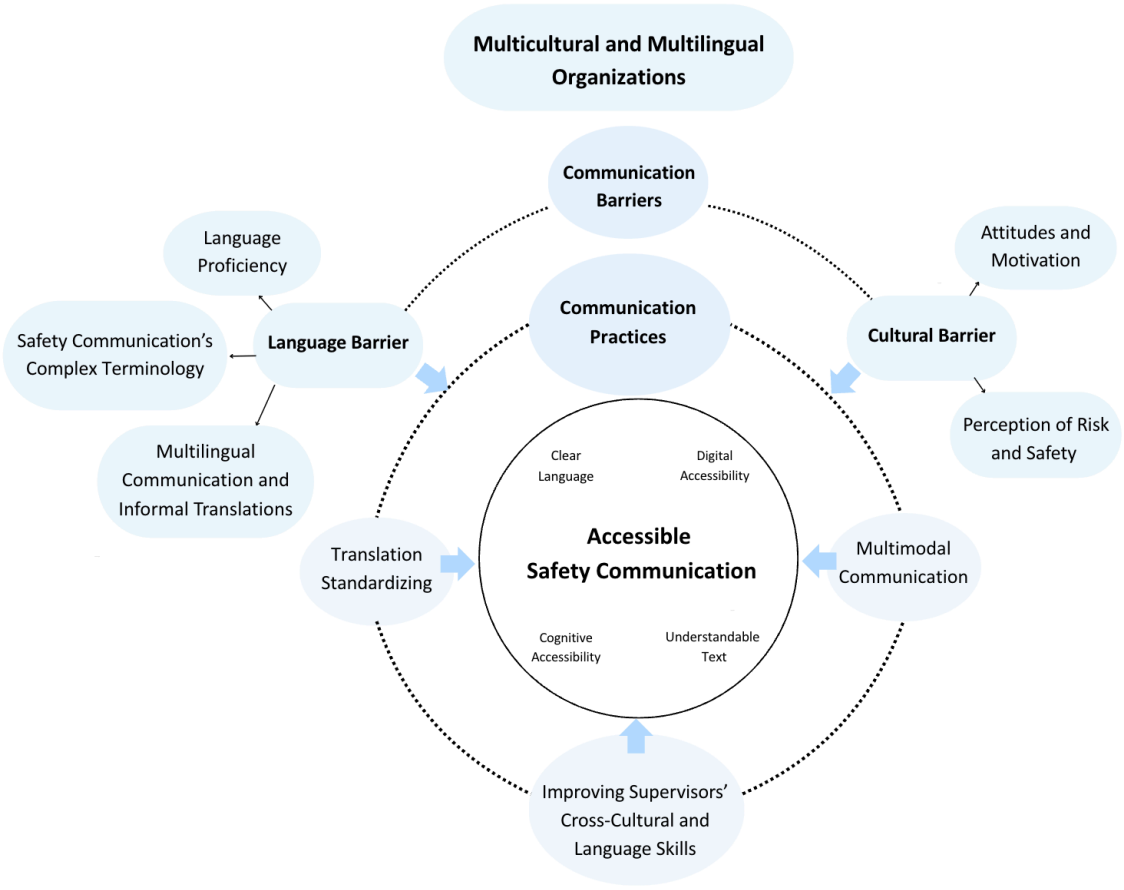

Figure 8. Summary of research findings.

To conclude the findings of the research, the empirical data reveal that the accessibility of safety communication in multicultural and multilingual organizations does not yet meet established requirements and therefore needs to be further improved. The significance of accessibility is multifaceted and is greatly influenced by communication

barriers, which may appear in various forms and are not always fully recognized. In other words, mere availability of information alone is inadequate to achieve accessible safety communication. To reinforce accessibility as a fundamental element of efficient safety management, organizations must implement carefully planned, inclusive communication practices that structure and present safety information in ways that enable all employees to fully understand and act upon safety guidance.

5.2 Managerial Implications

The results of the study show that the accessibility of the companies' safety communication is not consistent and that there are significant differences in its implementation. While organisations strive for consistent communication practices, fragmented implementation exposes employees to unequal access to information and does not fully consider the different backgrounds of individuals in receiving and understanding communications. The selective use of communication methods, the proactivity, and the communication skills of supervisors and the content of the communication all have a significant impact on this. On the other hand, the achievement of accessible communication is affected by the barriers associated with communication. Variations in the perceptions of risk and safety, attitudes and motivation regarding safety and compliance, varying language skills, complex safety communication terminology, multilingualism, and the informality of translation all pose key challenges to achieving comprehensible communication.

For safety communication to be linguistically accessible in diverse companies, it requires that all employees have equal access to communication. It is therefore proposed as a recommendation that organizations should develop their translation facilities by using content produced by professional translators to ensure accurate and consistent content when communicating in different languages. In this way, the terminology and language used in the content are successfully targeted, and the translations do not create inequalities between employees. Companies should therefore only use their own

translations in certain very special cases. This would contribute to clarity of communication, reduce confusion, and promote equality, as the meaning of the same content does not vary from one language version to another.

The results of the study show that supervisors play a key role as communication mediators, thus influencing the implementation of accessibility in practice. However, the interview data revealed that in some cases, supervisors do not have the necessary skills to communicate clearly and understandably to employees from different linguistic and cultural backgrounds. Therefore, companies should invest in training or courses for supervisors, focusing on simplifying communication through easy language and on how to recognise the different needs of employees in diverse work communities as recipients of communication. Moreover, annual performance and feedback evaluations could further improve the quality of communication and provide a means of ensuring that communication is delivered in an accessible way.

Another recommendation that could improve the accessibility of safety communication is the enhancement of multimodal communication. The interview data highlighted the need to use different types of visual and audiovisual material, particularly in situations where written communication poses challenges for employees and therefore does not reach all employees. In particular, the interviews highlighted the need for clear safety videos to support communication. Thus, the use of images, infographics, videos, or audio guidance to support the text helps to ensure comprehensibility of the communication by considering the different needs of employees, such as lower language skills or reading comprehension challenges. As a result, companies should clarify their communication strategies to implement multimodal communication, integrating it more strongly into the execution of safety communication.

5.3 Limitations of the Study and Future Research Suggestions

The limitations of the research are important to consider in the research process. Additionally, a thorough recognition of these limitations can provide suggestions for future research. Although the saturation of the data was achieved, a greater interview sample may have provided unnoticed insights into interpretations and conclusions. Moreover, the timeframe of the study affected the examination of a longer-term phenomenon related to the subject. Therefore, an extended observation period might be advantageous for additional research as it allows for a more thorough analysis of how the phenomenon changes over time, capturing changes that may not appear in a shorter timeframe.

The study's interviews were carried out in Finnish, and only Finnish supervisors participated in them, which may narrow the findings' relevance in other cultural contexts. As such, the perspectives and experiences collected represent a culturally specific viewpoint. Hence, it may be valuable for future studies to include individuals from various linguistic or cultural backgrounds to examine whether context-based perspectives lead to different viewpoints or similar themes.

Future research could additionally benefit from examining the subject from the perspectives of employees, as the inclusion of the experiences and perspectives of employees could provide a deeper comprehension of the phenomenon and enrich the subject at hand. Future studies could, for example, implement field research to further explore how employees perceive the effectiveness and accessibility of safety communication in practice. Alternatively, a quantitative study could also be an interesting approach to explore the phenomenon. Employee experiences could therefore assist in discovering which communication forms and methods are considered to challenge understanding or, conversely, to be most effective for employees, allowing for a more holistic approach to accessibility evaluation within companies.

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Appendices

Appendix 1. Semi-Structured Interview Questions

Background Questions

- What is your current role or job title?
- What industry do you work in?
- Could you briefly describe the type of work performed in your team or organization?
- Could you briefly describe the linguistic and cultural backgrounds represented among employees in your team or work community?
- What is the primary working language in your company? Is language proficiency tested before the beginning of employment?

Theme 1 – Supervisor's Role and Perspective on Safety Communication

- What communication methods and channels are used to deliver safety-related information in your organization?
- What types of content or matters are typically shared through safety communication?
- How is safety communication organized in our company?
    - Do safety communication procedures differ by department or supervisor, or are they consistent throughout the organization?
- Could you describe your own role in relation to safety communication?
- Has your company provided guidance or training on how to communicate safety issues to employees from different backgrounds (e.g., language or cultural)?

Theme 2 – Communication Barriers and Challenges in A Multicultural and Multilingual Context

- Have you encountered situations where safety-related communication was not understood by the employee?
    - Can you describe what caused this?

    - How was the situation identified, and how was it addressed?
    - How do you recognize when the intended message has not been understood? What do you do in such cases?
- What kind of challenges have you encountered when communicating or working with employees from different linguistic or cultural backgrounds?
- How do you think employees' different backgrounds, such as language, culture, previous work experience, or education, affect their understanding of communication?
- Have you noticed differences in how employees view and respond to safety rules and regulations?
    - Do you feel that some employees may have attitudinal differences regarding safety guidelines or rules?
- How do you handle situations when an employee's language skills are weak or very limited?
    - Have you used translations or interpretation in such cases?
    - Have you noticed that written materials have caused difficulties when language skills are limited?
- Have you encountered situations where technical terminology or jargon in safety materials has made understanding difficult?

Theme 3 – The Accessibility of Current Safety Communication

- When talking about accessible communication, what areas or elements does it involve in our view?
- What methods do you use to ensure that all employees understand safety-related messages?
    - Can you give a concrete example of a situation where understanding or misunderstanding was noticed in practice?
- How do you use visual aids (e.g., pictures, videos), plain language, or translations to support your safety communication? Are they used in combination?

    - Could you give an example where this method of communication has been particularly effective?
    - How do you feel that these methods have contributed to employees' understanding and internalisation of information?
- How do you perceive the quantity of safety communication? Do you find that large amounts of information make it harder to absorb or comprehend?
- Do you think that the current safety communication is clear, understandable, and reaches all employee groups regardless of their background?
    - If not, can you explain what might contribute to this?

Theme 4 – Developing Safety Communication to Enhance Accessibility

- Which of the current safety communication practices do you find particularly effective?
    - Are there any practices that you feel have not worked or have proven ineffective?
- How does the current design and delivery of safety communication consider employees' different backgrounds and skills (e.g., language proficiency, culture, work experience, education, or other factors) that may affect their understanding?
- How has your organization's safety communication improved or changed in recent years?
- In your opinion, how could the current safety communication be further developed to make it clearer, more understandable, and thus more accessible for all employees?
- Do you have any specific requests or suggestions in mind to further improve safety communication?