The Lone Learner?

A case study of employees' ability to learn informally while working remotely

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Abstract

Informal learning at work has received great attention over the past few years in both academia and practice. Scholarly literature has largely focused on investigating informal learning in physical work settings, but has disregarded that other contexts, such as working remotely, have become more prevalent in society. This study therefore aims to investigate how employees' ability to learn informally is influenced by the context of working remotely, as well as identifying contextual factors that may facilitate or inhibit informal learning. To accomplish this, a qualitative case study using semi-structured interviews was conducted to capture individual perceptions of informal learning and thereby ensure a deep, yet initial understanding of how this type of learning occurs in a remote working environment. The findings of the study suggest that while informal learning activities are still prevalent in remote working environments, activities related to interactions and those of more spontaneous nature seem to be hindered. Instead, informal learning becomes more individually driven and requires employees to take deliberate initiatives. The findings further suggest that the ability to learn informally is facilitated by contextual factors such as more time, autonomy, accessibility, leadership support, learning culture and digital tools. At the same time, informal learning seems to be inhibited by the lack of physical presence, task orientation, lack of structural enablers, social isolation, deficiencies of digital tools and shortcomings in learning culture. This study extends the dimensional framework presented by Jeong et al. (2018) and the theoretical understanding of informal learning in different contexts, thus yielding valuable insights for practitioners concerning how learning practices can be adapted to suit the modern workplace.

Keywords: informal learning, remote working, digital learning, workplace learning

Acknowledgments

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Definitions of Terms

Word	Definition
Informal learning	Non-formal learning that is integrated into work processes and daily routines, where subsequent activities result in the development of professional knowledge and skills (Lohman, 2000; Marsick & Volpe, 1999).
Workplace learning	Processes that concern formalized learning commitments related to work as well as learning that is embedded in the production of work and social interactions (Evans & Rainbird, 2006).
Remote working	Work at another place than the physical location in which the work otherwise would have taken place, made possible through communication technologies (Stansworth, 1998).
COVID-19 pandemic	Ongoing global epidemic declared in March 2020 that affects people all around the world, caused by a new form of coronavirus (WHO, 2021).
Contextual factors	Any aspects in the prevailing organizational environment that influences the facilitation of learning (Ellinger & Cseh, 2007).
Flexible working	Organizational procedures and initiatives aimed at increasing flexibility in how and where work is performed (Bailey & Kurland, 2002).
Digital learning	Various technology-based methods that are applied to support learning procedures (Ifenthaler, 2010).

1. Introduction

1.1 Background

In the last few decades, the labor market has experienced a rapid transformation due to societal and economic changes, which has shed light on the importance of learning in pursuit of individual career development and organizational success (Manuti et al., 2015; Tynjälä, 2008). As a consequence, interest in workplace learning has intensified and the workplace is increasingly being recognized as a legitimate environment for learning (Garrick, 1998; Hager, 1998a). In today's fast-moving markets and industries, skills and competences can quickly become outdated, and the need for continuous learning and development is therefore greater than ever (Kyndt et al., 2014; Manuti et al., 2015). Hence, the practice of promoting and facilitating learning has become vital for organizations in order to maintain competitiveness and the ability to be agile (Camelo-Ordaz et al., 2011; Cross, 2007). Many organizations now consider learning to be of strategic importance and organizational initiatives such as learning and development (L&D) departments are becoming increasingly prioritized in terms of both monetary resources and manpower (Chelovechkov & Spar, 2019).

The growing interest for workplace learning can also be found in academia. It has been understood that learning as a concept does not end after formal learning forums such as higher education and training but is rather a continuous and multi-dimensional phenomenon that takes place during one's entire (working) life (Bolhuis, 2003). Workplace learning has been found to take many different forms and the total sum of learning can be viewed as consisting of two fundamental parts that overlap in a constant iterative movement - formal learning and informal learning (Malcolm, Hodkinson & Colley, 2003; Marsick & Watkins, 2015). This study will focus on the latter, which is the type of learning that many researchers believe explain the majority of the learning by employees (Livingstone, 1999; Tannenbaum et al., 2010). In contrast to formal learning, informal learning is often initiated by employees themselves, as well as being unplanned and unstructured in nature (Hager, 1998b; Marsick & Watkins, 2015).

The aforementioned rapid changes in society have, among other things, led to the development of new ways of working. More flexible approaches to work are becoming commonplace and the definition of what constitutes a workplace is no longer as straightforward as before (Evans & Rainbird, 2002; Voida et al., 2002). Prior to the COVID-19 pandemic that erupted in the beginning of 2020, the adoption of remote working policies was not widespread (Kossek & Lautsch, 2018). However, as a consequence of the global pandemic, many organizations were forced to have their workforces work fully remotely (Bartik et al., 2020). Through this experience, individuals and organizations have realized the many benefits of working remotely, and flexible work arrangements are predicted to significantly increase as a consequence (Bick, Blandin & Mertens, 2020; Savić, 2020). Some companies have already radically changed their policies, with examples like Spotify and Twitter who have officially announced "work from anywhere"-models (Christie, 2020; Lundström & Westerdahl, 2021).

The changing definitions of what the workplace entails raises questions for informal learning research and practice. Many learning practices have traditionally relied on face-to-face meetings and interactions, the use of physical tools, physical proximity to colleagues and the ability to

observe others (Berg & Chyung, 2008; Ellinger, 2005). What happens to informal learning when the context of work becomes completely digital? To date, it is not known to what extent and in what way informal learning occurs in a digital work environment, and the organizational implications that might arise from it. The research landscape has covered a number of areas related to the topic, but is insufficient in capturing the reality of the contemporary workplace. As the predictions concerning more flexible ways of working have increased following the pandemic, it is of great interest to delve deeper into how learning, and in particular how informal learning manifests itself digitally.

1.2 Problem Discussion

The manner in which employees learn informally in the workplace has been widely studied over the past decades and there is a good understanding of the phenomenon. Hence, informal workplace learning is often regarded as a mature field of research (Marsick & Watkins, 2015; Jeong et al. 2018). However, the majority of studies within the field have been conducted under the assumption that the workplace refers to a physical organizational setting, such as a corporate office. The nature of the workplace is evolving and is doing so at a greater pace than ever before (Savić, 2020) and one can therefore no longer assume that working only takes place within a physical office. The context of working from home differs heavily from that of a physical office (Davenport & Pearlson, 1998). For instance, remote working implies that face-to-face interactions are minimized, there is a lack of physical tools and that communication is maintained solely through technology (Vartiainen et al., 2007). Thus, the existing theories of informal workplace learning may not fully capture the contextual implications of working remotely. The narrow focus on physical organizational settings in informal learning research therefore represents a major shortcoming of the current literature.

The digitalization of the workplace has been ongoing for many years and today, digital tools are a natural part of nearly every work environment (Ifenthaler, 2018). Hence, there is a growing body of literature dedicated to informal learning that takes place digitally. This research has however largely focused on investigating how particular tools and systems may facilitate informal learning, while the larger workplace context is presumed to be a physical organizational setting (Za et al., 2014). Most digital learning studies have therefore disregarded the fact that learning may take place in a setting which is completely digital. Although remote working certainly is not a new phenomenon, there still remains uncertainties as to how it may affect learning in the workplace. Learning-oriented organizations therefore face a major challenge in how to adapt their practices of promoting learning in the workplace. In order for organizations to continue to efficiently facilitate learning, the understanding of how informal learning works in the context of working remotely must thus be vastly improved.

1.3 Purpose and Research Questions

The main purpose of this study is to contribute to informal workplace learning theory by deepening the understanding of contextual factors that may influence informal learning. More specifically, the study aims to investigate employees' perceived ability to engage in informal learning activities when working fully remote. The study also aims to create a deeper understanding of how and why certain contextual factors may impact informal learning. An understanding for

how individuals perceive informal learning in the context of working remotely, may in turn provide relevant insights as to how informal learning is influenced, as well as yield potential facilitators and inhibitors within that context.

To fulfill this purpose, the study aims to answer the following research questions:

- *How do employees perceive that their ability to learn informally is influenced in the context of working remotely?*

- *What are the contextual factors that could facilitate or inhibit the ability to learn informally while working remotely?*

1.4 Delimitations

This study focuses on studying informal learning on the individual level, meaning that the subjective experiences and perceptions of employees working remotely is investigated. In doing so, the study is delimited to studying a large Swedish company, where 20 employees were interviewed. Despite that both contextual and individual factors have been shown to influence informal learning, the study solely focuses on investigating contextual factors due to time and resource constraints.

1.5 Expected Contribution

The expected contribution of the study is twofold. Firstly, the study will make a theoretical contribution by providing an extended version of Jeong et al.'s (2018) proposed framework and thereby form an increased understanding of how informal learning takes place in remote working environments and the contextual factors that may influence the nature of it. Research within informal workplace learning needs to take the fact that the workplace no longer is restricted to a physical organizational setting into greater consideration. Secondly, the study will make a contribution to practice by generating a better understanding of how informal learning is influenced by remote working. While the concept of working fully remotely may represent an extreme scenario, studying such occurrences have been shown to be beneficial for providing insights applicable for more common circumstances (Yin, 2009). By highlighting the potential facilitators and inhibitors of informal learning in remote working environments, practitioners can become better equipped to facilitate informal learning in the modern workplace.

2. Theory

This chapter provides the reader with an understanding of previous research through a literature review (2.1), as well as present the identified research gap. Lastly, the theoretical framework of the study is presented (2.2).

2.1 Literature Review

2.1.1 Workplace Learning

The societal shift towards knowledge being a key role of economic development affects organizations in many ways. It requires companies and employees to not just adapt to the ever-changing environment, but also to continuously learn and innovate (Baker, 2014). Focusing on workplace learning can improve an organization's capabilities and performance, thereby catalyzing the competitive edge that many companies strive for (Cerasoli et al., 2018; Dale & Bell, 1999; Roth et al., 1994). Zuboff (1988) emphasized this by claiming that learning is the new labor. Rather than viewing learning as a sacrifice to productivity, it is now at the very core of what productive activity entails (Vaughan, 2008).

Evans and Rainbird (2006) defines workplace learning as something that is "embedded in the production process and social interaction of the workplace, as well as more formal learning interventions related to the work environment" (p.4). Tynjälä (2008) formulated four major propositions of workplace learning; (1) it is different and similar to school learning, (2) it can be explained in various levels, from individuals to networks and regions, (3) it is formal and informal and finally, (4) the extent of workplace learning will vary depending on the support that is given by different workplaces. Modern workplace learning can therefore be viewed as highly contextual and not something that is constrained to formal training and development. This is mirrored both in human resource management research and practice - a discourse moving from "learning to work" towards "working to learn" (Felstead et al., 2011). Within workplace learning research, researchers have identified different types of learning that take place within organizations. A distinction is often made between formal and informal learning, in which the former comprises all learning that takes place on structured premises, often in institutionally sponsored classroom environments while the latter concerns learning that takes place without concretized and formal structures but that is integrated into work processes and daily routines (Marsick & Watkins, 1990; 2001).

2.1.2 Informal Workplace Learning

The term informal learning dates back decades ago and was first introduced in literature by Knowles (1950). In the formation of informal learning as a research area however, studies mainly focused on institutionalized education (Tynjälä, 2008). The interest in informal learning within workplaces emerged later (Watkins, 1989) and it is only in the last thirty years that it has become a major body of research (Jeong et al., 2018). This has created a major shift in terms of how informal learning is conceptualized. Today, informal workplace learning is considered to be one of the most prevalent forms of learning in the workplace (Brinkerhoff & Gill, 1994; Cross 2007; Ellinger & Cseh, 2007) and has therefore gained a lot of attention in human resource development literature. Despite the large attention informal learning has had in research, there is still no unified definition of the phenomenon (Clarke, 2004). When defined by researchers, informal learning is

often described by contrasting it to formal learning (Jeong et al., 2018). Marsick and Watkins (2015) described formal learning as often being institutionally sponsored, classroom-based and highly structured in nature, whereas informal learning most often takes place outside of the classroom, is more unstructured and the learner herself has the control of the learning. Informal learning is therefore often integrated into work processes and daily routines (Eraut 2004; Marsick & Volpe, 1999). In line with this, Lohman (2000) defined informal learning as "activities initiated by people in work settings that result in the development of their professional knowledge and skills" (p.84).

Despite the fact that informal learning is a widely acknowledged phenomenon, some researchers stand critical to the discourse used within the research area. For instance, there is no definite consensus as to the boundaries between informal and formal learning (Malcolm, Hodkinson & Colley, 2003; Schugurensky, 2000). There are even some researchers who are opposed to making this type of distinction in the first place and argue that they should be seen as parallel rather than separate (Manuti et al., 2015; Malcolm, Hodkinson & Colley, 2003). Others argue for conceptualizing it as a continuum, where formal and informal learning extend and reinforce each other (Billett, 2004). A majority of studies within the area do however seem to find the distinction between formal and informal learning as beneficial because they are inherently different (Dale & Bell, 1999; Marsick & Watkins, 2015). For the remainder of the study these two concepts will therefore be treated as separate.

Within informal workplace learning research, one can identify three major research directions. The first direction consists of studies that mainly focus on how people learn informally. In this direction the aim is to highlight what the process of informal learning looks like, as well as what type of dimensions and activities that it entails. The second direction of research is concerned with the factors that impact informal learning, focusing largely on individual and contextual factors. The third direction is focused on what type of outcomes one can achieve from informal learning. There is also a fourth research direction that is lesser in size but quickly gaining traction in the research field, which is concerned with how learning is impacted by digital technologies. The following sections of the literature review will present these different research directions.

2.1.2.1 How Informal Learning Works

The process of informal learning occurs when an employee is faced with a situation that they are unable to handle with their existing routines and capabilities (Eraut, 2004; Marsick & Watkins, 2015). One of the most prominent conceptualizations of the informal learning process was presented by Marsick and Watkins (1990). The authors suggested that learning starts with a trigger, which is an internal or external jolt that signals dissatisfaction with the current state. This is followed by a nonlinear process where the situation is diagnosed and alternative actions are examined. Once an action is taken, the individual will analyze the outcome and take away lessons from the experience as a consequence. This model has however been criticized by other researchers, particularly for disregarding the interactive and social nature of informal learning (Nicolaides & Marsick, 2016). Additionally, it is argued that the process focus underestimates the multi-dimensional and complex nature of informal learning, and the step-by-step basis of the model may represent an over-simplification of the phenomenon (Ellinger et al., 2018).

In contrast to the process perspective, Jeong et al. (2018) conceptualized informal learning as three different dimensions to ensure that the broad scope of informal learning is sufficiently captured. The three dimensions are referred to as *intentionality, developmental relatedness* and *learning competence*. The intentionality dimension proposes that informal learning occurs either deliberately or spontaneously (Eraut, 2004; Marsick & Watkins, 2001). This means that informal learning can happen both by engaging in activities with the intention to learn something, as well as being an unexpected outcome of an activity with a goal unrelated to learning in mind (Doornbos, Bolhuis & Simons, 2004). The dimension of developmental relatedness refers to whether or not the learning occurs through interactions with others and can thus be divided into three different parts: individual learning, learning from others and learning together with others (Doornbos, Simons & Denessen, 2008). The authors describe the third dimension as learning competence, which highlights that informal learning is an iterative process of action and mental components (Hoekstra et al., 2009; Marsick & Watkins 2001). The dimensions presented in Jeong et al. (2018) will serve as a foundation for the theoretical framework of this study and will therefore be presented in greater detail in section 2.2.

In the workplace, informal learning occurs in various ways which are often described as activities conducted by the learner. Some of the major types of activities that have been identified in extant literature are networking, trial and error, observing others, coaching, performing new tasks and mentoring (Clarke, 2004; Eraut, 2004; Lohman, 2006; Marsick & Watkins, 2015). Due to the complex nature of informal learning, no list of activities can be viewed as exhaustive on its own. Based on the combination logic of the three dimensions, Jeong et al. (2018) composed twelve different categories of examples of informal learning activities. For instance, an informal learning activity that is (1) deliberate, (2) individual and (3) mental could be an employee reflecting on a situation so that they can learn from it. Another example could be an informal learning activity that is (1) spontaneous, (2) occurs together with others and (3) action oriented, such as an employee participating in a discussion with their team and obtaining unexpected insights from it.

2.1.2.2 Antecedents of Informal Learning

In 1936, Kurt Lewin outlined that human behavior is a function of both the person and the environment that the person is in (Lewin, 1936). Accordingly, it is argued within workplace learning research that both individual and contextual factors have an impact on informal learning (Berg & Chyung, 2008; Cerasoli et al., 2018; Tannenbaum et al., 2010). The characteristics of individuals have been shown to affect informal learning in various ways. Choi and Jacobs (2011) showed that an employee's personal learning orientation, meaning the ability and interest in learning, has a positive effect on informal learning. In line with this, Lohman (2006) concluded that motivation to engage in informal learning activities is associated with characteristics such as taking initiative, being outgoing, having good self-efficacy abilities, having a positive learning attitude, having interest in the work position, and being engaged in one's professional development. Another pronounced individual factor that has been shown to influence informal learning is feedback-seeking propensity (Schürmann & Beausaert, 2016; Tannenbaum et al., 2010).

As mentioned, it is well-established that people and their corresponding behavior will be influenced by the context they are in (Lewin, 1936; Marsick et al., 2006). The term context can refer to numerous factors and no definite definition seems to exist. With regards to organizational

contextual factors, Ellinger and Cseh (2007) defined this term to include "any aspect of the organizational environment that influenced the facilitation of others' learning" (p.438). Correspondingly, Cseh, Watkins and Marsick (1999) suggested that contextual factors can entail anything in the workplace context, such as general work tasks and daily routines. The authors did however emphasize that contextual factors do not occur in a vacuum, but instead interplay with individual factors. Ellinger (2005) investigated both positive and negative contextual factors that impact informal learning and found that the former involves learning-committed leadership, a learning-oriented organizational culture and access to relevant work tools and other resources. Inhibitors of informal learning were the antithesis to the positive aspects, as well as structural inhibitors such as physical architectural barriers within the office. In line with this, Ellinger and Cseh (2007) found that amongst all factors, the role of leadership, and more precisely how learning-committed that leadership is, is one of the most powerful factors that influence informal learning. Although a discourse on the importance of leadership support prevails within the research community, other studies such as one conducted by Schurmann (2016) showcased how interactions and support from both leaders and colleagues were crucial contextual antecedents to informal learning, emphasizing the interactive nature of informal learning regardless of seniority. Related to learning-committed peer interaction, the process of giving feedback has been found to be a vital component of informal learning (Eraut, 2004; Hoekstra et al., 2009; Tannenbaum et al., 2010).

Eraut (2004) argued that since daily work largely consists of social interactions and group activities, such as working and solving problems together, informal learning is largely dependent on the social relations between employees. Relatedly, interpersonal relationships have been found to be an important driver for informal learning (Cunningham & Hillier, 2013; Lai et al., 2011). This involves building strong relationships, consulting with colleagues, direct communication, as well as being part of a positive collaborative environment (Cunningham & Hillier, 2013; Cuyvers, Donche & Van den Bossche, 2016). Bjørk, Tøien and Sørensen (2013) showed that vital parts of informal learning, such as more informal discussions and the activity of asking questions, can be eased with facilitating physical environmental structures that allow for easy, fast and spontaneous conversations. Related to this, Berg and Chyung (2008) found that physical proximity to colleagues may have a positive effect on informal learning. Given that organizational contextual factors have been proven to impact informal learning, there are various ways in which informal learning can be encouraged within organizations. Marsick and Volpe (1999) stated that organizations should design roles and work relationships in a way that encourages people to conversate and collaborate in solving problems. Networking has also been shown to positively stimulate informal learning and is therefore beneficial to promote and support within organizations (Doornbos, Simons & Denessen, 2008). Encouraging effective informal learning is however challenging, especially given the fact that it is often unconscious and spontaneous (Marsick & Volpe, 1999).

2.1.2.3 Outcomes of Informal Learning
Learning outcomes can be defined as sustainable changes in knowledge, skills or attitudes, which occurs as a result of engaging in learning activities (Doyle, Reid, & Young, 2008; Matthews, 1999). Determining the outcomes of informal learning is however challenging, much due to its often unconscious and non-visible nature (Eraut, 2004; Skule, 2004; Watkins et al., 2018). Much informal learning may also be workplace-specific and closely related to the context, further making it

difficult to determine its outcomes (Kyndt et al., 2014). Despite these challenges, a large body of research has been dedicated to identifying outcomes related to informal learning. Eraut (2004) identified eight different types of informal learning outcomes. These are positive effects on (1) task performance, (2) personal development, (3) awareness and understanding, (4) academic knowledge and skills, (5) role performance, (6) decision making and problem solving and (7) judgement and teamwork. These categories highlight how informal learning can have effects on both an organizational and individual level. On an organizational level, informal learning has also been shown to improve an organization's capabilities and in turn its performance (Cerasoli et al., 2018; Dale & Bell, 1999). It is therefore claimed that fostering learning within an organization is essential to stay competitive over time (Ellinger, 2005; Schulz & Roßnagel, 2010). On an individual level, informal learning has been shown to have a positive correlation with work involvement and engagement, improving efficiency and skill acquisition, as well as generating a more positive work attitude (Cerasoli et al. 2018; De Grip, 2008).

Within informal learning research, a common implicit assumption is that informal learning always leads to positive outcomes. From a more critical standpoint, some scholars have argued that there may be informal learning that does not have any positive effect, and possibly even a negative one. This suggests that one should pay more attention on determining how valuable lessons from certain informal learning processes may be, in terms of contributing to the development of the individual or the organization (Blackler, 1995; Spencer, 2001). For instance, Dale & Bell (1999) found that there could be negative effects in terms of employees learning bad habits or the wrong lessons without being aware of it, or that learning may not lead to personal development, since it is often unconscious and may therefore not be recognized by the learner.

2.1.2.4 Digital Informal Workplace Learning

The manner in which learning takes place has been radically altered due to workplaces becoming increasingly digital (Noonan, 2017; Ifenthaler, 2018). As a consequence, the interest in researching digital learning has grown significantly. Digital learning can be defined as "any set of technology-based methods that can be applied to support learning processes" (Ifenthaler, 2010, p.5). In recent years, a growing body of research has also been dedicated towards increasing the understanding specifically for digital informal learning. Most of this research has mainly focused on particular technological systems or tools that facilitate informal learning, such as massive open online courses (Ifenthaler & Schumacher, 2016; Milligan & Littlejohn, 2017), social networking sites (Ifenthaler & Pirnay-Dummer, 2011), online communities of practice (Gray, 2004) and intelligent tutoring sites (Brusilovsky, 2012). The usage of digital tools for workplace learning has been shown to have benefits in terms of providing the learner with more flexibility and autonomy, and the possibility to adapt the learning to one's individual preferences and needs (Brookshire, Lybarger & Keane, 2011; Egloffstein, 2018). Tynjälä and Häkkinen (2005) argued that in order to enhance both individual and organizational learning, digital learning tools must support both individual reflection and more collaborative knowledge sharing activities, with an emphasis on enabling knowledge interactions between various groups in an organization. A common assumption within this type of research is, however, that digitally based learning environments are not suitable for all learning content or situations, making face-to-face interventions necessary (Schumacher, 2018).

Within informal workplace learning research in general, the term *workplace* most often refers to a physical environment, such as an office (Manuti et al., 2015). This represents one of the major shortcomings of the current literature on informal learning, given that the workplace in today's modern society entails much more than just a physical office. Workforces are increasingly mobile and remote, making the learning environment radically different from that of a physical workplace (Ifenthaler, 2018; Noonan, 2017). The majority of studies on digital informal learning have been focused on arguing how specific social software systems and other tools can facilitate informal learning, often within physical offices (Za et al., 2014). The understanding of how informal learning is affected when working completely digitally, such as when working remotely, has however not been given enough attention in research.

2.1.3 Remote Working

The concept of producing work outside of the conventional office is not new. Ever since information and communications technology (ICT) innovations allowed for rapid, far distance-based communication, the notion of conducting work at another place than the workplace has become a lot more feasible (Lee, 2016). Flexible work arrangements include procedures and initiatives aimed at increasing flexibility in how and where a job is performed (Bailey & Kurland, 2002). It concerns everything from working from home, increasing or decreasing working hours, to working outside "normal" office hours (Den dulk et al., 2013). As for the concept of working outside of the conventional office, there are a number of terms that are treated as synonymous in the literature, such as telecommuting, teleworking, and remote working (Groen et al., 2018). In this study, the latter will be used for the sake of consistency. The term remote working can be defined as employees using communication technologies to conduct work at another place than the physical location in which the work otherwise would have taken place (Stansworth, 1998).

Remote working practices have been shown to have a number of benefits, both for organizations and individuals. From an organizational perspective, some incentives for adopting remote working practices are reducing costs of real-estate and increasing levels of productivity (Bailey & Kurland, 2002; Flores, 2019; Martin & MacDonnel, 2012). From the individual perspective, remote working has been shown to offer benefits in terms of improving wellbeing, facilitating a better work-life balance, reducing time for commuting and increasing job autonomy (Bailey & Kurland, 2002; Gajendran & Harrison, 2007). It has also been found to increase job satisfaction (De Lay, 1995; Wheatley, 2017), but only when sufficient organizational support is provided and the choice to work remotely is voluntary (Swisher, 2019; Bélanger 1999). Whilst few studies point towards communicative benefits for remote workers, extant research shows that through ICT, employees become more available to their colleagues and therefore tend to produce more work for their employer (Choudhury, Foroughi & Larson, 2021).

While remote working may lead to several positive outcomes, it is also associated with some challenges. One of the most prominent challenges of remote working relates to organizational communication (Bélanger, 1999; Boell et al., 2013). Although ICTs can be viewed as an enabler for remote working, several challenges exist for organizations in terms of setting up the necessary ICT infrastructure and being able to promote efficient communication (Boell et al., 2013). Researchers have found that remote working may lead to a decrease in the quality, frequency and

satisfaction with communication (Bélanger & Allport, 2008; Wang et al., 2020). Due to these communication challenges, the process of collaborating and sharing knowledge with others may be hindered (Boell et al., 2013; Pyöriä, 2011). It has also been found that particularly informal or spontaneous communication is impeded when working remotely, which may offer both social and professional disadvantages (Kurland & Cooper, 2002).

Related to this is the impact that remote working has on relationships within organizations. Felstead, Jewson and Walters (2003) investigated the relationship between managers and their employees, highlighting that the issue of physical absence can result in a lack of control on the managers' side. Remote working has also been shown to be a source of social isolation, which is another major challenge of remote working (Mann & Holdsworth, 2003). This is largely because working remotely limits the opportunities for socializing with colleagues (Baard & Thomas, 2010), while also making it difficult to build strong and informal relationships with colleagues (Kurland & Cooper, 2002). The importance of social support therefore seems to increase when working remotely, since it is conducive for overcoming feelings of loneliness and isolation (Wang et al. 2020). This also relates to the concept of social presence, which has been shown to be highly important for efficient learning (Aragon, 2003; Gunawardena and Zittle, 1997). Social presence involves factors like physical distance, facial expressions, eye contact and body language, which are seen as important for establishing interpersonal contact (Gunawardena and Zittle, 1997). Although research on social presence is largely focused on institutionalized education, researchers argue that establishing social presence in online environments is crucial for learning, but is highly challenging due to the nature of the digital format (Aragon, 2003; Rovai, 2001). Another aspect that has been acknowledged as a challenge within remote working literature is the effects it may have on organizational culture. Frolick, Wilkes and Urwiler (1993) found that employee attachment to culture can be weakened when remote working policies are enforced, due to the lack of visibility of cultural artifacts and the physical absence of colleagues.

Due to the challenges of social presence and other communicative aspects, one might also suggest that learning can be impacted when working remotely, given that learning is highly dependent on interactions and communication between colleagues (Eraut, 2004). Although no previous research, according to the authors' knowledge, has explicitly studied how a fully remote working environment influences informal learning, there are a limited number of studies that have studied closely related contexts, like flexible work arrangements, new ways of working (NWW) and adjacent topics such as knowledge sharing. For instance, Allen, Golden and Shockley (2015) investigated on a general level how effective remote working is and found that remote working negatively influences knowledge sharing and learning, mainly as a consequence of a loss of informal conversations. Earlier studies have found similar results, where the negative effects on informal learning were argued to be a consequence of challenges with spontaneous communication and the inability to observe colleagues, which may impede learning and career development (Bailey & Kurland, 1999; Kurland & Cooper, 2002). On the other hand, there are a few studies that have found that flexible work practices may have positive effects on informal learning. Gerards, de Grip and Weustink (2020) found that NWW positively influences informal learning and that the ability to receive feedback works as a mediator for efficient informal learning. Additionally, given that remote working increases employees' job autonomy (Coveyduck, 1997), which is a well-known driver for informal learning (Van Ruysseveldt & Van Dijke, 2011), this may suggest that remote

working can have positive effects on informal learning. Nonetheless, surprisingly few studies have focused specifically on how informal learning is influenced when working fully remotely. Hence, the current literature has not been able to provide a deep understanding of the phenomenon.

2.1.4 Research Gap

The above review of the literature within informal workplace learning shows a mature research area, where much is already known about the factors impacting informal learning. It is well-established that contextual factors within an environment impacts the nature of informal learning (Ellinger, 2005; Marsick & Watkins, 2015; Eraut, 2004). What still remains a question is how the context of remote working impacts informal learning. Extant studies have disregarded that learning might take place in a completely digital context. Consequently, the current informal workplace learning literature inadequately explains how the context of working remotely may impact informal learning. This represents a research gap, namely a lacking understanding of how informal learning is impacted when working fully digitally and outside of the physical organizational setting. Considering the recent increase of this type of work arrangement, it is of great interest to deepen the understanding of how informal learning is influenced when employees work remotely (Watkins & Marsick, 2021). This study aims to fill this research gap by focusing on the individual perception of learning opportunities in remote working environments and thereby identify how informal learning activities may be influenced by the contextual factors of remote working.
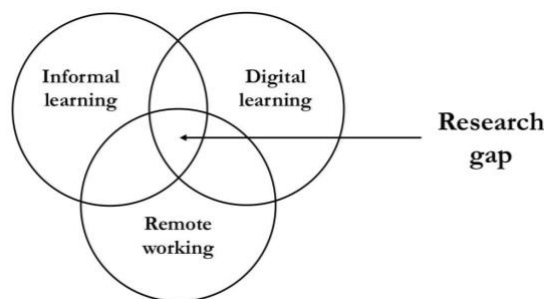
Figure 1 - Illustration of research gap

2.2 Theoretical Framework

For the purpose of this study, a theoretical framework has been developed (see figure 2). The framework is inspired by the conceptual model of informal learning presented by Jeong et al. (2018) who, as previously mentioned, conceptualizes informal learning on the basis of three different dimensions. The three dimensions are *intentionality, developmental relatedness* and *learning competence,* and are considered to represent continuums rather than separate constructs. The *intentionality* dimension suggests that informal workplace learning occurs deliberately or spontaneously (Eraut, 2004; Marsick & Watkins, 2001). When informal learning occurs spontaneously, it occurs with or without conscious awareness and as a result of events that are unplanned and unexpected (Marsick & Watkins, 2001). This implies that spontaneous learning may happen when activities are performed with a goal unrelated to learning in mind (Doornbos, Bolhuis & Simons, 2004). In contrast, deliberate learning consists of activities where the primary goal is to learn something (Eraut, 2004). This type of learning stems from specific learning needs and an intention to acquire new knowledge or skills (Doornbos, Bolhuis & Simons, 2004).

The second dimension, *developmental relatedness,* is based on the findings of Doornbos, Simons and Denessen (2008) and is defined as "how interaction between the learning worker and his or her interaction partner(s) contributes to learning solely on the part of the worker or for the interaction partner(s) as well" (p.131). The authors presented three different aspects of developmental relatedness; individual learning, learning from others and learning together with others. Individual learning refers to self-directed learning, where learning occurs without any direct social interaction (Doornbos, Bolhuis & Simons, 2004; Doornbos, Simons and Denessen, 2008). This refers to situations where no direct interaction contributes to learning, such as when the learner reflects individually on a situation or when doing readings on a topic (Doornbos, Bolhuis & Simons, 2004). Doornbos, Simons and Denessen (2008) distinguish between learning together with and from others, in which the distinction is based on whether the interaction leads to the development of both interactants and therefore is mutual or not. In this study, however, learning with and from others will be treated the same, since the distinction was not deemed relevant based on initial empirical results. These two types of learning are therefore together referred to as *interactive learning*. Examples of interactive learning include asking a colleague for feedback, situations of mentoring, engaging in a discussion of an issue and group-reflection of an experience.

The third and last dimension is *learning competence*, which refers to two separate yet iterative cycles of action and mental components (Hoekstra et al., 2009). This dimension highlights how informal learning is a constant process of action and reflection (Marsick & Volpe, 1999; Marsick & Watkins, 2001). If action would occur without any reflection, it is often much harder for individuals to make the connections needed so that it can lead to knowledge procurement or skill acquisition (Marsick & Volpe, 1999). The mental component of informal learning can involve critical reflection, assessing learning needs or monitoring learning progress (Jeong et al., 2018). The action component can refer to interactions with colleagues, experimentation with new ideas or ways of working and asking for feedback or advice (Jeong et al., 2018).

Since this study aims to investigate how the context of remote working influences informal learning, the framework also incorporates contextual factors. It is well-established that various contextual factors have a significant influence on informal workplace learning (Eraut, 2004), and it is therefore likely that this applies to contextual factors of remote working as well. Since this study is exploratory in nature, the categories of contextual factors of remote working that may influence informal learning are not specified beforehand and are instead allowed to emerge freely from the study's empirical data. It should also be noted that the framework is not intended to make any causal claims, but rather aims to capture contextual factors that may facilitate or inhibit informal learning in a remote working context.
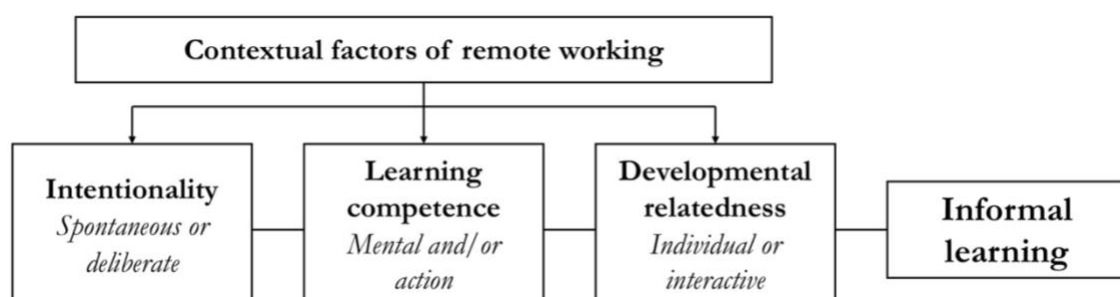
Figure 2 - Theoretical framework (inspired by Jeong et al., (2018))

The constructed framework is able to capture the complex and multi-dimensional nature of informal learning (Jeong et al. 2018), which enables the phenomenon to be studied in-depth. Furthermore, the comprehensiveness of the model also allows informal learning to be captured in a holistic way, which makes it suitable for applying it to a new context. When applying the three dimensions as an analytical lens, a more nuanced perspective can be provided for how these aspects are influenced when working remotely and the contextual factors that may explain this. The use of a dimensional perspective provides a clear connection to the characteristics of different informal learning activities through its combination logic (Jeong et al., 2018), which allows the authors to utilize more explicit examples of informal learning in order to make the interview questions more comprehensible for the study's interviewees (see Appendix 3). The combination logic of the dimensions and its translation into categories of activities will however not determine the structure of the analysis, since the study does not intend to strictly investigate the occurrence of different informal learning activities. Instead, the framework of this study recognizes that the dimensions co-exist in its shaping of informal learning and that there is a constant interplay between the dimensions. Given that the selected theoretical framework is based on a relatively new conceptual model, one might argue that it lacks appropriate validation from empirical studies. The authors recognize the implications of this, yet do argue that the basis of the framework should be regarded as well-founded since Jeong et al's (2018) model is based on the theories and conceptualizations of well-cited and separately validated research.

3. Methodology

This chapter intends to describe the methodological approach of the study. Firstly, the research design and approach are presented (3.1), followed by a description of the data collection process (3.2). Thereafter, the data analysis method is presented (3.3), as well as the ethical considerations (3.4) and quality considerations (3.5) that have been made. Lastly, the study's methodological limitations are discussed (3.6).

3.1 Research Design and Approach

3.1.1 Scientific Research Approach

Since the study is aimed at investigating how individuals experience and understand informal learning in a remote working context from a subjective standpoint, the authors adopted an interpretivist perspective. Accordingly, the authors attempt to understand the phenomena in question through the meanings that people assign to them (Boland, 1991; Orlikowski & Baroudi, 1991). It is thus recognized that social reality is shaped by humans through their actions and the contexts they reside in (Orlikowski & Baroudi, 1991). In line with the interpretivist perspective, the authors adopted a qualitative research method for the study. In order to capture emerging patterns around the human ability to learn informally in the remote-working context, a deep dive into employees' reflections is required, with the ambition of sticking to the core research subject, meaning that a qualitative approach is preferred (Fylan, 2005; Thanh & Thanh, 2015). The qualitative research approach is also suitable for unknown research areas, in which a prevailing research gap places higher demands on an open-minded approach and method, which can support the emergence of new theory (Edmondson & McManus, 2007). Furthermore, the authors adopted an abductive approach, inspired by the Systematic Combining method presented by Dubois and Gadde (2002). In this way of thinking, theory and empirics were developed in harmony and iteratively in an ever-changing process. The abductive logic method enabled the authors to constantly reflect on the research process and potentially alter the theoretical framework that outlined the foundation for empirics and analysis. Since the purpose of this study was not to confirm theory that already exists, but rather to discover new patterns and phenomena, the abductive method was deemed to be well suited (Dubois & Gadde, 2002).

3.1.2 Single-case Study

For the purpose of this study, the authors chose to conduct a single-case study. The case study method offers an opportunity to dive deep into real-life situations and investigate experiences and perceptions directly in relation to the chosen phenomena as it unfolds in practice (Flyvbjerg, 2006). Since this study aims to create a deep understanding of the phenomenon, a single-case study was deemed appropriate (Darke, Shanks & Broadbent, 1998). Furthermore, a case study is relevant since it allows for an analysis of the contextual factors that influence the phenomenon of how employees learn informally within a specific workplace setting (Merriam, 1998; Merriam & Simpson, 1995). In addition, Yin (2003) argues that "You would use the case study method because you deliberately wanted to cover contextual conditions - believing that they might be highly pertinent to your phenomenon of study" (p.13). The authors chose to study an organization that is representative of the transition from physical to remote working that has become a reality for most organizations since the COVID-19 pandemic began. According to Yin (2009), using a representative case is one of the circumstances in which a single-case study is appropriate.

Although the study focuses on the perceptions of several individuals, the study is treated as a single-case study given that these employees are similar in the sense that they are provided with the same type of organizational support for learning. The case company is argued to be representative for answering the research question since they work rigorously with learning and because remote working has been implemented for employees within the organization.

Given that this study is focused on investigating informal learning on an individual level, the usefulness of multiple cases is reduced. The authors therefore argue that by using a single case, they have been able to obtain a detailed understanding of the perceptions of employees' and the depth needed to adequately answer the research questions of the study. Some researchers argue that multiple-case studies are preferable when it comes to generalizability; however, with regards to this study, the authors' intent was not to demonstrate generalizability, but instead to understand the deeper structures of the chosen phenomenon. In order to seek an initial understanding of informal learning in remote working contexts, the single-case study was therefore deemed to be scientifically appropriate. Additionally, given that existing literature is limited, the single-case study method can be enough for theory development (Easton, 1995).

When selecting the case company for the study, a purposive sampling method was applied, which is suitable when a certain case is deemed particularly informative with respect to the research question (Ishak & Abu Bakar, 2014; Patton, 2002). In order to identify a suitable organization, the authors established two selection criteria. First, the organization needed to have had at least 80% of their workforce working fully remotely for the past six months, to ensure that the influence of remote working could be sufficiently studied. Secondly, the organization needed to have an articulated commitment towards facilitating learning. Clear indications of this learning commitment needed to be apparent from published mission statements, core values and in the press. After researching several organizations committed to learning and interviewing some organizational representatives, the authors were able to select a case company that fulfilled both criteria. The chosen case company is introduced in section 4.1. The authors have signed a non-disclosure agreement and the company will therefore be treated anonymously in this study. Henceforth, the company will be referred to as "the case company", to maintain confidentiality.

3.2 Data Collection

3.2.1 Interview Sample

The selection of interview participants was based on a purposive sampling method, meaning that participants were selected based on their relevance to what was being studied, and not on its representation of a population, being the appropriate way to manage case study samples (Braun & Clarke, 2013; Flick, 2009). The sampling was based on two criteria to ensure that the informants would be able to provide relevant information and insights, while also ensuring that the sample represented a variety of views and perspectives. The criteria were that the participants (1) had to have fully worked remotely for the last six months and (2) had to represent a variety of departments and hierarchical levels. The choice of participants was made in collaboration with the contact person of the case company to ensure that the criteria were met and that selection bias was reduced. The participants worked in various office positions in different subsidiaries operating on the Swedish market and had the same access to the case company's learning initiatives. In order to get

a deeper understanding of how the case company works with informal learning within their organization, background interviews were also conducted. In this case, the participants consisted of employees working within the Learning Team of the HR department, which were selected together with the contact person. In total, 20 participants were included in the study, in which three were treated as informants for the background interviews. The number of participants was not decided upon beforehand, instead the authors made a decision to end the interview process once sufficient data had been collected and no supplementary data was found. This is often argued to be the preferred method for deciding the number of participants in qualitative case study research (Bowen, 2008; Strauss & Corbin, 1998).

3.2.2 Interview Process
After the selection process of participants, they were each sent an informative email containing an introduction of the authors and a description of the purpose of the study. The interviews were scheduled for a total of three weeks. The authors intended to conduct the interviews in a physical environment, since this is suggested to provide deeper understanding of the statements of the participants as compared to digital environments (Bryman & Bell, 2011). Due to the COVID-19 pandemic, however, the authors had to make safety considerations and thus decided to conduct all interviews digitally. The interviews were conducted via the communication platform Microsoft Teams, offering the opportunity for video conferencing, which made it possible to utilize the camera function so that body language could be documented. Conducting qualitative research by using video interviews is, according to many researchers, a viable option and should not necessarily be viewed as inferior to face-to-face interviews (Deakin & Wakefield, 2013; Nehls, Smith & Schneider, 2015). By using digital interviews, the participants were able to participate in the interviews from their home, allowing them to feel safe and relaxed. Hence, the authors argue that they were able to obtain a deep understanding of the perceptions of the participants.

Each interview was conducted individually to reduce the influence of group effects and to ensure confidentiality (Frey & Fontana, 1991). The interviews were conducted in the native language of the participants, in this case Swedish, to ensure that language barriers would not affect their responses (Baumgartner, 2012). The interviews lasted for about 60 minutes and were recorded with the participants' permission. All participants were treated anonymously to ensure confidentiality, which was communicated prior to the interviews. An overview of the participants is presented in Appendix 1. Both of the authors participated in each interview, as this reduces the risk of biased interpretations (Belk, Wallendorf & Sherry, 1989). One was responsible for asking the questions, while the other took notes on what was being said as well as the body language of the informant. After each interview, the authors took individual notes to make sure that spontaneous reflections and insights were captured, which thereafter served as a preliminary means of analysis.

3.2.3 Interview Design
Since the purpose of the study was to obtain a deep understanding of how informal learning is influenced by remote working, in-depth interviews were deemed appropriate. The authors adopted a semi-structured interview approach to enable in-depth responses about the employees' perceptions, feelings and experiences (Braun & Clarke, 2013; Kvale & Brinkmann, 2014). The

semi-structured interviews allowed for greater flexibility, which was suitable given the dynamic and complex nature of informal learning. The authors developed interview guides for both the background and main interviews (see Appendix 2 and 3), in which the latter was largely structured in accordance with the theoretical framework of the study. Hence, the main interview guide primarily involved the three dimensions of informal learning as defined by Jeong et al. (2018), as well as questions related to contextual factors of remote working. The questions were open-ended to encourage detailed and rich answers (Kvale & Brinkmann, 2014). The semi-structured nature of the interview allowed the authors to use probing techniques and follow-up questions to ensure a more detailed understanding of the perceptions of the participants (Berg, 1989). Aligned with previous research, the questions referred to *learning* in general to make it more explicit and relatable, as opposed to asking specifically about *informal learning* since people generally have difficulties accrediting informal learning (Dale & Bell, 1999). Given that informal learning makes up the vast majority of learning that takes place in organizations (Brinkerhoff & Gill, 1994), the authors argue that asking about "learning" in general is empirically favorable. The authors were therefore responsible for making the distinction between informal and formal, where only responses referring to informal learning were included in the analysis. As for the interview guide for the background interviews, it was designed to provide a better understanding of the case company's strategy for learning, the initiatives that had been implemented to facilitate learning, as well as their challenges related to remote working. In accordance with the Systematic Combining Approach presented by Dubois & Gadde (2002), both the main and the background interview guide were revised as the interview process went along.

Prior to conducting the main interviews, two pilot interviews were conducted to reveal weaknesses in the interview design and to give the authors an opportunity to modify it before the main interviews. This allowed the authors to attain a better understanding of the length of the interview, how the questions from the interview guide were perceived and what type of answers that could be obtained. Based on the pilot interviews, the interview guide was adapted so that richer answers could be ensured (Bryman & Bell, 2015).

3.3 Data Analysis

The method for data analysis in this study was inspired by the thematic analysis presented by Braun & Clarke (2006). The aim with using a thematic analysis was to identify, analyze and report patterns within qualitative data (Braun & Clarke, 2006; Bryman & Bell, 2015). The thematic analysis can provide a rich and detailed account of data (King, 2004), which aligns well with studying novel areas of informal learning research. The first phase of the analysis was to get familiar with the data, a process that ran parallel with the interview process. All interviews were transcribed within 48 hours. The transcriptions were sent to the participants for validation before it was used in the analysis. The quotes that were selected for the analysis were translated into English and checked by a peer researcher to ensure accuracy in the translations (Hambleton, 1993).

Once the authors were familiar with the data and some initial ideas for themes were identified, the coding process was initiated. The data was coded individually by both authors prior to being compared and synchronized coherently to ensure quality (Barratt, Choi & Li, 2011; Nowell et al., 2017). The coding was done in a systematic fashion across the entire data set and the codes were

later translated into different themes and subthemes. The themes were to a large extent constructed with the theoretical framework in mind, but due to the abductive approach of the study, some themes were based on the empirical data alone. This allowed the authors to identify unexplored aspects of informal learning that are not evident in existing theory.

3.4 Quality Considerations

To ensure trustworthiness in the data collection and analytical process, the authors made an effort into fulfilling the criteria for how to conduct qualitative research. In order to evaluate the quality of the study, the authors adopted the four quality criteria presented by Lincoln & Guba (1985).

3.4.1 Credibility

Since the phenomenon of informal learning was studied through human perceptions and interpretations, the consideration of credibility becomes essential. Credibility refers to whether the researchers' representations of reality correspond to the reality perceived by the participants (Lincoln & Guba, 1985). Given that several employees were interviewed, where there was a variety in terms of departments and hierarchical levels, the credibility of the study was enhanced. The study also involved a researcher triangulation, meaning that both authors were present during all the interviews. As a result of this, the interpretations could be discussed between the authors in order to minimize the risk of faulty ones, which increased the credibility of the study (Kvale & Brinkmann, 2014). In order to further enhance the credibility of the study, the authors used the process of member checking to verify the transcribed material with the participants (Lincoln & Guba, 1985).

3.4.2 Transferability

In qualitative research like this study, it is not the researchers' task to make any precise statements about how well findings may be generalized to other contexts or situations, referred to as transferability (Lincoln & Guba, 1985). Instead, the authors made sure to provide thick descriptions of the context and the phenomenon being studied. This allows readers who may wish to transfer the findings to make their own judgment of transferability (Lincoln & Guba, 1985; Bryman & Bell, 2015).

3.4.3 Dependability

In order to enhance the dependability of the current study, meaning how the research process can be systematic, well-documented and traceable (Lincoln & Guba, 1985), the researchers used the inquiry audit technique. The research process was thus regularly monitored by both a supervisor and fellow researchers, where an examination of the process as well as an accuracy check of interpretations were made.

3.4.4 Conformability

As a researcher, one has to consider the degree to which the findings of the study can be confirmed by other researchers and prevent ones' theoretical or personal biases from affecting the collection, interpretation and analysis of data (Bryman & Bell, 2011). In order to enhance this quality aspect, referred to as conformability, the authors made a significant effort to practice reflexivity. This entailed considering the authors' roles and attempting to become aware of how it may affect the

research and keeping an open dialogue with one another regularly throughout the entire study. Since researcher triangulation was applied, the presence of biased interpretations was further minimized (Lincoln & Guba, 1985). Furthermore, the authors made an effort to transparently describe the reasons for theoretical, methodological and analytical choices throughout the study, to give a better understanding of how and why these decisions were made.

3.5 Ethical Considerations

One of the main ethical considerations that was made for this study was to ensure anonymity for the case company as well as the participants. Names and roles of the participants are therefore not disclosed in the study. Furthermore, data safety was highly prioritized, for which the authors made sure that video files were stored safely through a secure cloud storage system. GDPR regulations were strictly followed, meaning that all video recordings were deleted after being transcribed. Another ethical consideration was made regarding informed consent, meaning that the participants must have agreed to participate in the study and that they were provided with information about the research process and its purpose (Bryman & Bell, 2015). As such, permission had to be given by the participants regarding recordings of their interviews.

3.6 Methodological Limitations

This study aimed to address how the ability to engage in informal learning is influenced by remote working. The COVID-19 pandemic offered an opportunity to study this phenomenon since most organizations were forced to adapt to full remote working. The forced nature of the transition to remote working may have an impact on the answers given in the study and hence may not correspond to normal remote working circumstances. Another limitation of the study is that the phenomenon was investigated using solely qualitative interviews during one point in time. A triangulation of methods and a longitudinal method may have further strengthened the rigor of the study (Lincoln & Guba, 1985). However, due to the scope of this study and the COVID-19 pandemic, there was no room for including several methods in the study nor to study the phenomenon over time. Finally, all communication with the case company, as well as the interviews, were managed in Swedish, while the analysis of the empirical data was performed in English. The researchers understood the interpretative obstacles that can arise from this (Temple & Young, 2004) and reduced the risk of misunderstanding by constantly reflecting on translations and how they could be as linguistically consistent as possible (Czarniawska, 2004; Xian, 2008).

4. Empirical Findings

The following chapter presents the empirical findings of the study. With the purpose of providing the reader with an understanding of the context, the case company and their learning strategy is presented (4.1), followed by three sections that present the themes that emerged from the empirical data; individual learning (4.2), interactive learning (4.3) and organizational facilitation and culture (4.4).

4.1 The Case Company and Their Learning Strategy

The case company used for this study is a large Swedish corporate group, consisting of five different subsidiaries. The subsidiaries operate in different industries, but their core business is within retail. The group operates in multiple markets, wherein Sweden represents the biggest one. The Swedish market will therefore be the main focus of this study, as the company's headquarters and the majority of their operations are located there. The group is at the forefront of organizational practices in many respects, with learning and development being one of them. A few years ago, the organization put learning at the top of their strategic agenda and dedicated themselves towards becoming a constantly learning organization. The motivations behind promoting learning within the organization were based on the realization that learning may function as a tool for tackling business problems and that it can create company value.

As a part of this strategic shift, the case company created a new team within the central HR function specifically dedicated to outlining and implementing a new learning strategy for the entire corporate group. This represented a move from having multiple subsidiaries working in silos with learning, towards having a more centralized foundation for learning. The learning team adopted a bottom-up approach and invited employees from different subsidiaries and departments so that the learning strategy could be co-created together. The basis for this decision was that learning should be easy and accessible for everyone. The subsequent efforts towards implementing this strategy revolved around two main aspects. First, working with employees' ability to learn and conveying why learning is essential for employees. Secondly, encouraging employees to produce learning themselves and helping them learn how to become better at it and efficiently share it. As a part of this, the learning team introduced several new learning platforms and tools. The learning strategy therefore involved a digital transformation, which was accelerated by their recent transition into remote working due to the COVID-19 pandemic. Despite a positive development in the adoption of digital learning tools, some challenges have surfaced, in terms of how learning should be spread amongst employees through digital solutions, as well as maintaining the learning culture that was previously established in a physical office context.

4.2 Individual Learning

4.2.1 General Perceptions of Individual Learning

Upon discussing individual learning, some of the participants expressed that they have not experienced any major changes in their ability to learn since they started working remotely. This is argued to be because they have had access to the same tools and systems as they would while working at the physical office. Furthermore, since individual learning was perceived to be within oneself, the lack of physical interactions with colleagues was not viewed as an inhibitor of this type of learning. At the same time, other participants expressed that they experienced that individual

learning has taken a more central role in their overall learning due to social isolation. Some attribute this to the increased autonomy that is viewed as a consequence of working remotely.

"I would say that remote working has positively impacted my abilities to develop myself and learn new things. Now it is completely up to myself and since I now control my days and plan them myself, it has become easier to prioritize it." (Participant 8)

Other participants claimed that their increased focus on individual learning was a result of having more time, because of reduced commuting and physical transportations at the office. While many expressed that they perceived an increase in the amount of time available to engage in individual learning activities, lack of time was recognized as the most common reason as to why learning sometimes became deprioritized.

"You have gotten more time for individual learning when you are working from home, because there is so much time you would otherwise put into walking between meetings at the office or going back and forth from the coffee machine, or you get stuck chatting with people. So, I have actually felt that I have a better opportunity to learn things now when I am working from home. You only have to schedule it in your calendar and then you are set." (Participant 12)

Some participants expressed that the context of working remotely has made them feel more comfortable in taking the time for individual learning activities, precisely because they are performed in solitude, where no one can observe them.

"Finding the structure for learning in everyday life has gotten easier, because ... this is going to sound so silly, but no one is looking at you if you sit in your chair at home reading a book, or if you lay down on the couch and listen to a podcast or something else regarding learning. At the office, it is expected to sit in front of the computer and type on your computer." (Participant 9)

While working remotely, many of the participants experienced that the need for taking responsibility and initiative for their learning had become more important. This was explained as a consequence of having greater job autonomy and that individual needs were less visible to managers and colleagues. Some participants did however emphasize that they believed that having an eagerness to learn is equally important when working at the office.

"The [case company] provides a lot of support for learning and it is accessible to everyone. But it requires that you take your own initiative, especially now when we are working from home. No one will tell you what to do, you have to take the initiative on your own." (Participant 16)

4.2.2 The Act of Reflecting

As a part of individual learning, reflection was seen as an important part of the participants' overall learning. There were, however, different points of views when it came to how remote working influenced the ability to reflect. Some expressed that they experienced a positive effect on their ability to engage in reflections when working remotely. Once again, this was largely explained by having more time available due to working remotely.

"I believe that my reflection has been impacted positively by working from home. If I would have been at the office, I would have come up with ten other things to do before I would engage in reflection. Now when I can sit at home, I can log off and take the time to really sit down and think. It is very active and intense at the office, so you sort of get worse at taking the time to reflect." (Participant 5)

While many perceived that they had more opportunities to reflect when working remotely, other participants expressed the exact opposite. This was explained as a consequence of becoming more task oriented in their everyday work. Furthermore, the participants experienced that it had become less natural to take breaks, which otherwise was viewed as a way to facilitate reflection and in turn learning.

"I would say that it is a lot more job-focused. You take a lot shorter and fewer breaks. And that might be negative for learning in general, since you do not have that many breaks for processing and reflecting. I think the brain needs to be able to process everything and rest as well. And that is something I believe has gotten negatively impacted." (Participant 14)

4.3 Interactive Learning

4.3.1 General Perceptions of Interactive Learning

Regardless of where work is conducted, the participants were highly aware of the learning opportunities that exist from interactions with colleagues. Some even claimed that the type of learning that takes place together with others; is the most important type for their development and skills acquisition. Other participants argued that the most efficient way of learning something new or acquiring a new skill is to combine interactions with others and individual reflection.

"I believe I learn from others to a very high extent. When you work with people with different competencies and experiences there is always something to learn. I think you are constantly learning things from others when you are interacting, whether you notice it or not. It is probably how you learn the most." (Participant 13)

Upon being asked how they generally perceived that their ability to learn from interactions with others had been influenced from working remotely, some participants believed that learning together with others had not been noticeably impacted. Although the interactions take a different form, in a remote setting, they claimed that it did not impede the ability to learn from them. It is, however, relevant to note that many of the participants who had initially expressed this later identified several changes in their ability to learn once asked about more specific types of learning. Other participants were however convinced from the start that working remotely impacted their ability to learn interactively, both positively and negatively.

"I feel like I still learn from other people, but it is different from before. In some ways it has been negative, because you might miss out on interactions that would more naturally occur at the office. But in other ways I feel like there might be some things that have made it easier to learn from each other, much due to the digital tools we now utilize better." (Participant 4)

4.3.2 Spontaneous Interactive Learning

With regards to how the ability to learn interactively has been impacted from working remotely, many participants pointed out that it was especially the opportunities to learn from spontaneous interactions that had been affected. The participants expressed that they had experienced that most

spontaneous interactions with colleagues that normally would take place at the physical office, no longer occurred to the same extent. The participants did acknowledge that all types of spontaneous interactions might not always lead to specific learning outcomes, but most believed that these types of interactions can give rise to many valuable, sometimes unexpected learnings.

"There are fewer meetings at the coffee machine or over lunch. And I do not mean meetings as in formal meetings, I mean to just meet and talk to people. You also never run into people in the corridors as you used to. So, you kind of have to make contact with people purposefully in order to get to know things, you have to actively do it. And I think it is easy to forget this, so you probably miss a lot of valuable things in terms of learning."
(Participant 15)

Some of the participants expressed a belief that there still occurred instances of spontaneous interactions. However, many of them argued that these interactions had become more formalized and were hence no longer as spontaneous in nature. Nonetheless, there was consensus amongst participants regarding that they had experienced a significantly lower frequency of spontaneous interactions. In line with this, some participants expressed that most interactions now had a clear purpose behind them. They claimed that without a clear purpose or question, these types of interactions rarely happen.

"Spontaneous interactions do not occur as much anymore. Taking a snack by the coffee machine, talking over a spontaneous lunch or chatting in the corridor - that does not exist anymore. We have tried doing some of this digitally, but it becomes very formal. You have to book it, so it is not as spontaneous anymore." (Participant 8)

This formalization of spontaneous interactions that was mentioned once again relates to the importance of taking initiative to interact, which was pointed out by several participants. They expressed a need to take initiative themselves, in order for these types of interactions to happen at all.

"We all say that we miss the moment by the coffee machine - and what is important about this moment? It is that you run into people and you start asking all sorts of things, and it is actually a really important exchange of information. But now I have realized that I actively have to make sure that I keep this going and maintain my network by getting in contact with these people digitally." (Participant 20)

Many participants highlighted how spontaneous interactions with colleagues outside of their own team had been particularly negatively affected. The participants experienced that interactions with people in their "*periphery*" had been completely eliminated and that they as a consequence could miss out on knowledge sharing and learning. Relatedly, some participants maintained that they had missed out on learning opportunities that could lead to a holistic understanding of the company as a whole and potentially help one's work position.

"All these people you do not really think about having a dialogue with, people from other organizational departments. For instance, when I come across someone from subsidiary A and go "wow, cool thing you did with the business recently, why did you do X and Y?" Things that I had not even really thought about asking but all of a sudden I get lots of information that is not directly relevant to my job but still gives me an overall picture of the [case company] as well as me learning something new. It is very useful from a learning point of view for me, because I can put my job in a better context and we actually lack that right now." (Participant 20)

4.3.3 The Ability to Give and Receive Feedback

The perceptions of how the ability to give or receive feedback had been influenced due to remote working varied amongst the participants. Some believed that certain types of feedback had become easier and more prevalent since working remotely.

"Giving positive feedback might have been better remotely through Microsoft Teams. You feel more comfortable sending a message on Teams saying "what a good presentation that was". So, I think that giving positive feedback has been facilitated by communicating digitally. It is less comfortable to do it physically, you have some sort of distance online." (Participant 10)

Yet, many did agree that spontaneous feedback may have been impacted negatively since they started working remotely. As a result, many believed that spontaneous feedback required more initiative and formalization. Additionally, some participants mentioned that there are some types of feedback that might be better suited for physical interactions, especially aspects that may be regarded as sensitive or critical.

"If you sit physically together, then I think it is much easier to talk about the feedback that might be sensitive. I myself, perceive it to be easier to sit together and talk, it becomes more personal. I think that the personal aspect is important in a feedback culture, and we lack that now, when we work remotely." (Participant 8)

4.3.4 The Increased Task Orientation

Several of the participants expressed that they experienced meetings and interactions becoming more task oriented since they started working remotely. The perception was that meetings had become more efficient, both in terms of time and output. Some participants expressed that this was likely a consequence of how social or spontaneous interactions, such as small talk, did not occur to the same extent anymore.

"It is less small talk compared to before. The meetings are significantly more efficient, especially with time. In ordinary times when you had a meeting, the first minutes would be social talk. But now there is much more focus on the agenda straight away." (Participant 13)

While some seemed to perceive this as a positive development, others claimed that it suppressed other important aspects, such as social aspects or hindering creativity, which in turn may influence learning.

"We are good with effectiveness in terms of solving the task that is on the agenda. But at the same time, if it inhibits creativity and learning, then it is not really effective. Also, I feel like we forget about a lot of social aspects that are important as well. That is something we need to learn how to balance and I think it is more difficult to do so when working remotely." (Participant 13)

4.3.5 Advice-seeking Behavior and Accessibility

Several participants emphasized that their ability to ask for advice was negatively impacted from working remotely. They expressed that due to a question being "too small" in relation to the context, the barriers for reaching out to someone digitally were larger, compared to if one would simply approach a colleague at the office.

"When we worked at the office it was much easier to be able to just ask a question straight out to a colleague in the office landscape. This has become more difficult now. Also, it takes more time or becomes more difficult to ask a quick question in the corridor like you would at the office. I think this may have affected my learning negatively since I might not get the advice that I would need. I think it is because you feel like your question might be too small in the context to actually write to someone about it or schedule a meeting." (Participant 14)

Other participants had a completely opposite perception and were under the impression that it had become easier to ask questions or advice since they started working remotely. This was explained as a consequence of how colleagues had become more accessible due to digital tools, which enabled fast interactions that otherwise may have been neglected. In line with this, participants emphasized that it had become easier to ask for advice particularly because one does not have to consider if the other person is busy or not. They also noted that there might be physical barriers at the office, which was no longer a problem when working remotely.

"It has been easier when I have not had to go to someone's desk and gently say "hello, sorry, are you this and that? Do you have the opportunity to help me with that?" The barrier to ask questions is much lower. You have been forced to become more easily accessible. Always." (Participant 18)

4.3.6 The Nature and Quality of Interactions

Some participants expressed that the frequency of interactions that they have engaged in has decreased from working remotely, because spontaneous interactions do not occur as often and thus lead to fewer total interactions in comparison to the physical office. At the same time, other participants believed that the frequency of interactions had increased instead. The remote working context was argued to have lowered the barriers for having quick meetings or check-ins, thus making it more natural and convenient to schedule.

"Work interactions have increased enormously. Because the need is there, and it is more natural now. Even at the office if I sat at one end of the office and the others at the other end, it was not natural to run in between and it surely was not natural to call someone over Teams." (Participant 9)

Participants also expressed that they believed that the quality of interactions had been impacted, both positively and negatively. Some participants mentioned that certain functions of the digital communication tools facilitated interactions to provide guidance or teach someone a certain function, for example by sharing one's screen. Some had also experienced the remote workplace context facilitating the dissemination of valuable knowledge, partly because the digital format was argued to make it easier for people to both listen and speak in a more synchronized manner.

"It has worked much better now than before. Before, we were very one-track oriented, and you simply focused on your own things. Now it has become more focused on spreading the knowledge. It is much easier now and if I do not understand or know how to proceed with something, you can just bounce some ideas with someone and it is easier to listen to what someone is saying. So, it has worked much better now." (Participant 12)

As for the negative influences on the quality of interactions, participants mentioned that the digital format required more planning and formalization of meetings. Due to the high demands on structure and planning, some experienced that the digital format may result in fewer interactions or lacking quality. Moreover, participants believed that interactions became more difficult as the

number of people in a meeting increased. They expressed how digital forums become an obstacle to high-quality dialogues and discussions, particularly for creative and introductory phases of projects.

"Interactions have been negatively affected… I think that it is connected to the fact that it is very difficult to have discussions on Teams, because you talk past each other, not the least when there are many people in the meeting. It is difficult to create a good dialogue and discussion when you have to raise your hand, which is something you should do when there are several people interacting. It is not the same type of interaction and dialogue."
(Participant 8)

In line with this, participants expressed on their own accord that interactions where some are located physically at the office and others remotely became highly problematic in terms of the quality of interactions and the opportunity to learn. Participants felt that they were heard better and that discussions became more balanced and equal when everyone participated on the same terms.

"It becomes more equal when everyone is sitting in their own place at home and tunes in, instead of some people sitting in one place and some working remotely. It is easier to lose those who join from a distance. Above all, it becomes more difficult to throw yourself into a discussion. If you are the only person at a distance and the others discuss something that you can certainly take part in, it is difficult and awkward to break in and you have to engage more to make yourself heard." (Participant 15)

4.3.7 Intangible Factors Relating to Physical Presence

When participants reflected on the learning that takes place when interacting with others, they often mentioned how the dialogue was affected by sensory impressions, which they believed can make a difference to the quality of interactions. They expressed how there are things that you simply cannot put into words - it is a *"feeling"*, *"something complex"*, or *"something about the physical world"*.

"You have only seen each other from the chest and up. You only have the face of a voice, but you do not know what they look like or what body language they have, and I think that is really important. It is difficult to put into words... It becomes stripped down when you sit like this, and in turn I think learning from others becomes more difficult, because you do not connect fully." (Participant 8)

Participants expressed how the ability to read body language and analyze the reactions of others played a vital role in the quality of interactions. It was argued that one may miss out on learning opportunities because of this, since these types of sensory impressions otherwise can trigger curiosity for learning.

"You do not see body language. I think it is important to see the reactions of those you talk to, because that will impact how you continue to interact and express yourself. You know, if you for instance see people grimacing or something. You lose a certain amount of learning because otherwise maybe you see and feel more and become curious to ask questions." (Participant 12)

Some participants expressed that meetings and interactions became tedious when they were in a digital environment. Although it was mentioned that this was not always necessarily a bad thing, more creative discussions were perceived to suffer as a consequence. Relatedly, participants

mentioned that they could not achieve the same *"energy"* and that interactions thus became less inspirational.

"To sit physically with each other, see each other, see someone look away, cough or something, by doing that you get so much more information that triggers your brain in a different way. It is more "naked", dry, dull. But actually easier and therefore more suitable for these quick run through meetings, while these initial creative meetings get more complicated." (Participant 6)

4.3.8 Relationships and Networking
Despite the increased accessibility of other people, participants expressed that it became more difficult to build strong and personal relationships with others when working remotely. This relates to the findings regarding intangible factors and sensory impressions and how these are perceived to be important for relationship building. Additionally, participants argued that relationship-building activities did not occur as naturally anymore and that the digital format made them less prioritized.

"Building a working relationship digitally sort of works, but building this personal relationship is difficult. It is very difficult to get to know people when you work like this and you just meet people in small, "isolated islands". This overall picture is easily lost by working digitally. It is not really possible to put into words, this thing that cannot be touched but is so incredibly important in order to build relationships." (Participant 9)

In line with this, participants expressed that their ability to network had become negatively impacted, and that this change was mainly due to the fact that discussions had become more task oriented rather than focused on building a relationship. The challenges with building relationships through networking were believed to impede learning since one may become more reluctant to reach out to people for advice or questions in the future.

"We have created teams where you can run breakout rooms, in which you are thrown out in a group of people you may never have met. But it is not the same as attending a conference and meeting people physically. Because then, you create networks in a different way and get to know the person too. You do not do that digitally, as there will be a lot of focus on the topic. You share some experiences and thoughts then it is usually "thank you and goodbye". But if you network physically, you might create a relationship that you can more easily make a new contact with if it were to be something similar in the future. But that step is a little longer when you only meet digitally." (Participant 8)

4.4 Organizational Facilitation of Learning
4.4.1 Learning Tools
As a consequence of working remotely, the participants expressed how they had become more reliant on the digital learning tools that are available. Many participants felt that the digital learning tools had worked well and that they had generally become better at using the tools, due to the social isolation that remote working entails.

"Due to the total lack of interactions with people, I use the tools that are available much more. If you want to be able to type, share documents or show what something looks like in different applications, it is easy to do it with Teams etc. In Teams, you also have the advantage of video calls, which is much easier than using the phone." (Participant 15)

Participants also expressed how the transition to remote working had led to better accessibility of events and seminars for learning, since these are more easily accessed digitally. Here, the participants experienced greater ownership of whether to participate or not, as well as for how long.

"I think the digital format has probably been better. You now have time to jump into these different forums. Someone can log in temporarily and if it is not interpreted to be of use for that person that person can equally jump back out again. I see it as something that has perhaps been a positive change compared to before."
(Participant 14)

Although most of the participants expressed an increased use and at times benefits of the digital tools, there were certain occasions and tools that were perceived to be inadequate. Whiteboards were often mentioned during the interviews, and the general perception was that it was difficult to replace the things that occurred around a physical whiteboard, despite there being digital equivalents.

"What I can miss is probably these interactions that occur when someone is drawing on a whiteboard. It usually helps a lot to get a better understanding of the overall picture. And the digital version, I mean… It is just not as good and I do not think it ever will be." (Participant 14)

4.4.2 Encouraging Leadership

While it was perceived to be easier to reach out and at times support each other as a team, many shared the view that sufficient leadership was crucial in order to ramp up the social interactions, which in turn often led to spontaneous learning opportunities.

"I think some things can be connected to the issue of leadership, that leaders have to promote the social part. Even if we work remotely, we for instance have to take a coffee together. And here, I believe the leaders are important in making it happen. You have so much to do and you connect early in the morning but then that is it. So, I think the leaders would need to do a little more here, the social part." (Participant 8)

When the question of whether encouragement from above, be it leadership or corporate initiatives, existed in a digital context, the general perception was that encouragement was provided, however that it is up to the individual in the end. Nevertheless, some participants criticized that learning is only encouraged and believed that it may require clear directives as well. Some therefore believed that it would be advantageous from a learning perspective, for management to demand certain learning and development objectives.

"I can experience that it would be better if... I mean I feel better from having demands and expectations on myself, so it would be beneficial if my manager would be more "I want you all to attend this training and have these training goals that you report to me". Then I get motivated, because sometimes as it is now, it is like "What should I do now?" (Participant 17)

5. Analysis

The following chapter analyzes the empirical findings in relation to the theoretical framework of the study and previous research. The analysis is based on the three dimensions of informal learning, which are intentionality (5.1), learning competence (5.2) and developmental relatedness (5.3). At the end, the conclusions of the study are presented (5.4).
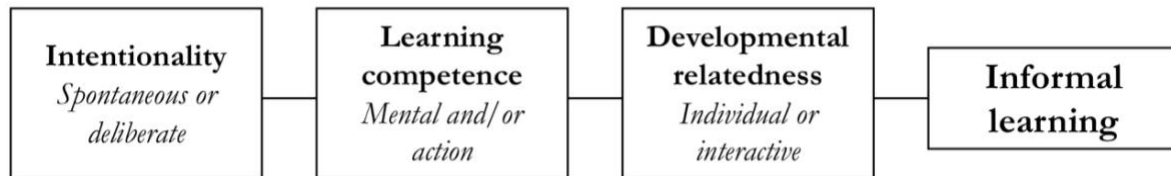

Figure 3 - Illustration of theoretical framework

5.1 Intentionality

With regards to the intentionality of informal learning, participants found that informal learning occurred either deliberately or spontaneously. Prior research has found that contextual factors can influence the intentionality of learning (Eraut, 2004) and accordingly, the empirical data of this study suggests that there are contextual factors of remote working that influence the intentionality of informal learning activities.

5.1.1 Spontaneous Learning

The ability to engage in spontaneous learning activities was perceived to be negatively influenced by working remotely. It was found that participants experienced a lower occurrence of spontaneous interactions, and in turn also fewer interactions that would give rise to spontaneous learning. This aligns with the findings of Allen, Golden and Shockley (2015), who found that informal learning can be negatively influenced in a remote working context, as a consequence of the loss of informal conversations. The findings of this study are, however, able to deepen the understanding of what type of interactions that are affected and which contextual factors that could explain this. The empirics suggest that it is interactions with other teams or departments that are affected negatively in particular, which may impede a holistic understanding of the organization and consequently lose out on synergy effects in terms of knowledge sharing. This may be attributed to the nature of the digital format, in which there is a lack of structural enablers for spontaneous interactions in comparison to a physical office. Structural enablers that facilitate spontaneous interactions such as those that occur by the coffee-machine, in the corridor or over a lunch, do not currently exist digitally according to participants. The importance of structural factors corresponds to the findings of Ellinger (2005) and Bjørk, Tøien and Sørensen (2013) who found that attributes within the physical architecture of a workplace influences informal learning. Another contextual factor that may explain the decrease of spontaneous learning activities is the increased task orientation that participants experienced when working remotely. As a consequence of this, meetings became more time-efficient and the spontaneous interactions that may have previously occurred in connection to meetings became deprioritized. This in turn suggests that learning opportunities were triggered by task-specific needs to a greater extent, as compared to being triggered by spontaneous interactions with other colleagues.

Participants did however express that spontaneous learning still occurs, particularly in the form of learning by doing, i.e., as a consequence of performing their job. Still, when it came to spontaneous learning that stemmed from interactions with colleagues within their own team, participants experienced that such activities became more formalized, which consequently made them less spontaneous in nature. This does, however, raise the question if spontaneous interaction even occurs at all, given that participants claimed that there often needs to be a formal purpose for interactions to happen. The formalization further suggests that the need for taking initiative to interact becomes greater when working remotely. It also suggests that leadership has an important role in facilitating arenas for spontaneous learning to occur, arising both from social and work-related interactions. It is however likely that too much formalization of learning activities by the leader may result in an abundance of learning opportunities, which in turn can hinder the natural occurrence of spontaneous learning. The risks of too much formalization of informal learning activities have also been suggested by other researchers, where the concern is that it may hinder the process of informal learning, whose efficiency often depends on spontaneity and self-interest (Marsick & Volpe, 1999). Upon analyzing spontaneous learning, it is also important to question the value of the learnings that stem from spontaneous interactions (Spencer, 2001). As mentioned by participants, it is difficult to estimate how important spontaneous interactions are for learning since not all learning can be regarded as valuable. However, in line with previous research (Eraut, 2004; Doornbos, Bolhuis & Simons, 2004), the empirical data suggests that spontaneous interactions are a very important source of informal learning and may enable learning outcomes that cannot be achieved otherwise.

5.1.2 Deliberate Learning

As a consequence of the negative influence on spontaneous learning, the empirical data suggests that deliberate learning takes a more central role when working remotely. The act of deliberately engaging in activities with the goal of learning in mind has, according to participants, become essential for learning to occur at all since beginning to work remotely. This suggests that the need to take responsibility for one's own learning and to take initiative for engaging in learning activities is greater when working remotely, both for individual and interactive learning. The increased importance of taking initiative may explain individual needs and desires being less visible to others, indicating that support from colleagues and superiors may be more limited. Despite leadership support being regarded as an important facilitator of informal learning by the participants, it is evident that it is up to the individual in the end to ensure that one actually engages in learning activities. To some extent, this contradicts the findings of extant research, where leadership support is regarded as the most important factor for informal learning (Ellinger & Cseh, 2007). The empirics of this study instead suggest that while leadership support is still important when working remotely, other factors are more essential to facilitate learning, such as access to learning tools. There are however indications that some individuals may require directives rather than just support and encouragement, which may be particularly relevant for individuals from whom learning does not constitute a natural part of their roles. The empirical data further suggests that deliberate learning is facilitated by learning culture, in the sense that it makes employees more prone to take initiatives for engaging in informal learning. Although previous studies have found that culture may be negatively influenced by working remotely (Frolick, Wilkes & Urwiler, 1993), the findings of this study instead suggest that learning culture generally remains intact.

5.2 Learning Competence

Aligned with previous research, the empirics suggest that informal learning is made up of two iterative components; mental and action related activities. When working remotely, there continues to be an iterative combination of the two, yet it appears to become more weighted towards the mental component.

5.2.1 Mental Components of Learning

The empirical findings indicate that the mental component of informal learning takes a greater role in a digital context. Despite that mental components of learning often are difficult for individuals to acknowledge (Dale & Bell, 1999), since it is sometimes unconscious, participants were still convinced that mental components had been positively influenced. This can potentially be explained by the social isolation of remote working, which inhibits certain action components and thus makes individuals more reliant on mental activities for learning. This further strengthens the conceptualization of the learning competence dimension as a continuum (Jeong et al., 2018), by illustrating that losses on one component can imply a higher dedication to the other component. Despite that the overall perception was that mental components of informal learning have been positively influenced, aspects relating to mental learning activities that are triggered by interactions with others may have been negatively influenced to some extent. This may be attributed to the fact that the learner in question seems to receive less stimuli from other colleagues, which otherwise could have triggered an informal learning process. In turn, this suggests that the mental component of learning is to a higher extent triggered by the individual learner and not by others when working remotely.

5.2.2 Action Components of Learning

On the action level, a distinction can be made on the individual and interactive level. Engaging in action-related learning activities individually did not appear to have been influenced in a substantial way, since participants still had the same access to digital tools, such as learning platforms and research tools. The empirical data does, however, indicate that these individual activities have been strengthened to some extent, due to contextual factors like having more time available. On the other hand, the interactive level seemed to have been affected negatively due to the same reasons mentioned as to why the mental component has grown; that learning is triggered by oneself and not through interactions, due to receiving less stimuli from others.

Researchers have claimed that if action occurs without mental components, it becomes more difficult for individuals to transform information and experiences into learning outcomes (Marsick & Volpe, 1999). Despite that the action components of learning were perceived to be negatively influenced on the interactive level, it may not necessarily mean that the employees learn less when working remotely. Instead, individuals may have become more capable of transforming learning opportunities into actual learning outcomes as a consequence of the increased focus on mental components. However, the complexity regarding the awareness of learning once again comes into question (Dale & Bell, 1999), since individuals may not be aware that certain interactions actually can result in learning outcomes.

5.3 Developmental Relatedness

In terms of developmental relatedness, participants conveyed a high level of awareness of the fact that learning can occur both individually and together with others. Furthermore, it was found that participants experienced that the context of working remotely had influenced the occurrence and nature of both types of learning.

5.3.1 Individual Learning

With respect to learning on the individual level, participants experienced that this form of learning generally became more prevalent since they began working remotely. This was explained as a consequence of having more time available due to the elimination of commutes and physical transportations at the office, as well as the reduced frequency of spontaneous interactions. The temporal perspective does, however, represent a paradox in the sense that the individuals with high learning-ambitions expressed that they had experienced having more time because of remote working, but still claimed that lack of time is the reason why they do not engage more in individual learning. This seemed to be explained by increased workloads unrelated to the context, which implies that it should not be regarded as a contextual factor of remote working. The findings do however suggest that there might exist a disconnect between ambition and action when it comes to individual learning when working remotely. The enhanced ability to engage in individual learning also seems to be a consequence of the increased level of job autonomy that the participants experienced. By having more control over one's schedule and work processes, the participants experienced that it became easier to prioritize individual learning. Previous research has found that job autonomy is a driver for informal learning (Van Ruysseveldt & Van Dijke, 2011), and the findings of the current study thus suggest that this also appears to hold in a remote working context.

Participants also expressed that they had better utilized the digital learning tools that were available, which was explained as a consequence of the social isolation that the remote working context entails. This builds upon the findings of digital workplace learning research, where digital learning tools are claimed to facilitate informal learning (Ifenthaler, 2018), by suggesting that these become even more vital in remote working contexts. Furthermore, there are indications that the participants may have felt more comfortable to take the time for individual learning when working remotely, since the act of reading a book or taking a walk to reflect is not visible to anyone else. It is relevant to note that while the case company is highly dedicated to creating a culture that encourages learning, some individuals still felt as though some behaviors were not fully acceptable in an office setting. Although the reason for this might be individual characteristics, it still suggests that building an encouraging learning culture takes both time and continuous effort regardless of the context.

The act of reflection was one of the most prevalent forms of individual learning according to the participants. They experienced that due to the time savings of remote working, more opportunities for reflection arose. In line with the increased task orientation found in meetings, some participants experienced that this applied to their individual work processes as well. Upon becoming more task oriented in their daily work, these participants experienced that time for reflection instead became deprioritized. This task orientation also led to fewer breaks in the day, which would otherwise be

a natural occasion for reflection. This illustrates an interesting phenomenon where the time that has been freed up by working remotely may not necessarily be utilized for learning, due to the increased task orientation in which surplus time is spent on more work.

5.3.2 Interactive Learning

In comparison to the perceptions of individual learning, the empirical data on interactive learning illustrates a more complex picture. Participants expressed contradicting views with regards to if and how the ability to learn informally from interactions had been influenced. While some believed that there was no major difference, others expressed that the ability to learn from interactions had been both positively and negatively impacted. While these differences may be explained by individual factors, there also seems to be a discrepancy between the perception of the influence on interactive learning as a whole, versus the perception of how different specific types of interactive learning had been influenced. This discrepancy was evident, as participants who had expressed that the ability to learn from others generally had not been influenced could later express the opposite when asked about more specific types of interactive learning. This indicates that the differences in the perceptions may result from the challenges of acknowledging informal learning activities, since they are often unconscious or seen as just a part of one's job. In line with this, there was little consensus among the participants as to how the frequency of interactions had been impacted from working remotely. While some believed it had increased as a consequence of having more "*check-ins*", others believed it had decreased due to the lack of spontaneous interactions. This could likely be a consequence of differences between roles or teams, but it may once again also indicate that the perceptions of individuals may vary in terms of what classifies as interactions related to learning.

When it comes to the general perception of how interactive learning had been influenced, the negative influences that were expressed referred primarily to the lack of spontaneous interactions (see 5.1.1 for a detailed description on spontaneous learning). Upon discussing more specific learning activities, a more nuanced picture emerged. One example of an interactive learning activity was to receive or provide feedback, which according to the participants, became easier when it comes to positive feedback due to digital tools that lowered the barriers for providing it. When it comes to negative or sensitive feedback, however, the perception was that it had become more difficult when working remotely, largely due to the physical absence and the challenges of connecting with others on a personal level digitally. Additionally, participants perceived that spontaneous feedback had been negatively impacted since spontaneous interactions occurred less frequently and thus required more formalization and initiative.

The act of asking for advice was another interactive learning activity that, according to participants, was influenced by the remote working context, wherein some perceived it to have become easier since digital tools made colleagues more accessible and that there were no longer any physical barriers. Still, others seemed to believe that it would be easier to ask for advice when one is physically close to colleagues, which is in line with Berg & Chyung (2008) findings on physical proximity having a positive effect on informal learning. The reason as to why some individuals felt more comfortable asking for advice physically may be the intangible factors related to the lack of physical presence. These intangible factors mentioned by the participants relate closely to theories

on social presence, which is seen as an important factor for making the learner comfortable and making the "instructor" seem approachable (Aragon, 2003). Given that social presence has been shown to be lower in digital environments (Rovai, 2001), this can likely explain why some individuals feel less comfortable asking for advice in a remote working context than in a physical office context. Despite that there appeared to be some form of consensus as to the increased accessibility of others, many participants still perceived that learning had become less interactive in nature. This seemingly contradictory view may relate to problems with learning culture, since participants mentioned that they became reluctant to ask for advice if the content or question is deemed to be "too small" in relation to the larger context. The idea that one has to bring something to the table could also be explained by individual factors yet the hesitance to ask for advice may also have a broader cultural explanation. Characterized by the egalitarian nature of the "law of jante"* employees at the case company seemed to become reluctant towards taking up people's time. The same cultural aspect may however explain why the participants perceived it to be more comfortable to provide positive feedback, since one can hide behind a screen when working remotely.

Other activities in which interactive learning often occurred were in formalized work-related meetings and digital events. Participants expressed that the digital format and the digital tools that were used could have positive effects on the quality of discussions, since the flow of dialogues was improved and (digital) functions such as sharing one's screen facilitated knowledge dissemination It was also mentioned that learning may have been facilitated since digital tools provided a flexibility in terms of attending events, such as seminars. Digital tools do however not always seem to be facilitating, where the opportunity to learn was perceived to depend primarily on (1) the number of people in the meeting, (2) the type of meeting and (3) in what format (digital or hybrid) the meeting was held in. As for the number of participants in meetings, the general perception was that the digital format made it more difficult for larger groups of people to engage in discussions. The suggested reason for this was that the digital communication tools were deficient for these types of interactions, which lead to less valuable discussions and in turn fewer learning outcomes. When it came to the type of meeting, participants expressed that most meetings work well digitally, but those that involve creative aspects or introductory phases of projects may suffer in terms of quality and thus also the learning opportunities related to them. This was explained to be a consequence of the lack of physical presence, but also the lack of certain physical tools, like a whiteboard, that was seen as helpful for these types of activities. As for the format of the meeting, quality seemed to deteriorate in hybrid formats when some employees of the meeting were located at the office and others connected remotely. An associated risk was that employees may feel excluded to some extent, as they were not participating on equal terms, and in turn they potentially miss out on relevant learning opportunities. This also suggests that the physical forum per se may not always be optimal from a learning perspective, and that it is rather the characteristics and purpose of the interaction that need to be taken into account so that one can adapt the format and in turn facilitate learning.

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*A literary element that is partially assumed to explain the egalitarian (social equality for all people) character of Nordic countries, in which behaviours such as reticence and humility are advocated (Trotter 2015; Sandemose, 1933).

The general ability to learn from interactions also seemed to be influenced by a number of intangible factors that to some extent were difficult for the participants to put into words. These factors relate to the lack of physical presence, meaning that sensory impressions are limited and that there are challenges in observing body language and other expressions. As a result of these challenges, participants perceived that the quality of interactions decreased in comparison to when interacting face-to-face and thereby also affecting their ability to learn from others. Furthermore, even though people were available and open to engage in interactions and to learn from others, the intangible factors stemming from physical presence that are perceived to be lacking, also appeared to inhibit some relational aspects between employees. In the absence of physical presence and the inability to observe body language and obtain certain sensory impressions, creating a strong relationship was deemed more difficult, and in turn making it difficult to build a professional network. Once again, this relates to theories on social presence which have shown that these types of intangible factors are important for building interpersonal relationships and in turn achieving efficient learning (Aragon, 2003; Gunawardena & Zittle, 1997). As a consequence of these difficulties, participants felt that they were more hesitant to reach out to people and thus potentially miss out on learning opportunities. Given that it is known that strong relationships and networks are important for informal learning (Lai et al., 2011; Cunningham & Hillier, 2013), the empirical data suggests that the challenges with building strong and personal relationships when working remotely may influence informal learning negatively.

5.4 Conclusion

While informal learning continues to be a complex phenomenon, this study has shown that the context of remote working may influence employees' ability to engage in informal learning in several ways. While remote working may have positive influences in terms of facilitating certain informal learning activities, there are at the same time factors that may function as inhibitors to this type of learning. The contextual factors that have been identified can therefore provide a better understanding of why informal learning may be impacted by working remotely. By applying the theoretical framework of the study, it has been demonstrated that remote working may influence all three dimensions of informal learning. The level of intentionality appears to be highly influenced by the context, wherein deliberate learning seems to be dominant in comparison to spontaneous learning. The negative influence on spontaneous learning may be explained by the lack of structural enablers for spontaneous interactions, as well as an increased level of task orientation in meetings and interactions. Relatedly, learning culture and leadership support was regarded as an important facilitator for encouraging informal learning. The efficiency in facilitating informal learning does, however, seem to depend on finding a balance between formalization or directives and indirect encouragement.

Moreover, while informal learning still seems to be an iterative process of both mental and action components, the remote working context appears to have influenced the dimension of learning competence in terms of what component takes precedence over the other. Due to the nature of the digital format, where social isolation and fewer interactions is often experienced, the mental components of learning seem to take a more prominent role in learning. In line with this, developmental relatedness has also been shown to be influenced in the sense that individual learning has become a more dominant form of learning, due to time savings and increased job

autonomy. On the other hand, interactive learning is the dimension that is perceived to have been most affected. It may suffer to some extent in remote working environments due to the challenges associated with spontaneous interactions and deficiencies of digital tools, as well as the relational consequences of the lack of physical presence and certain shortcomings in the learning culture. There are however some aspects of interactive learning that may have been facilitated, such as asking for certain kinds of advice or receiving feedback, which can be explained by an increased level of accessibility of others due to digital tools. For the purpose of integrating empirical findings with the chosen theoretical framework, an extended version of the theoretical framework is presented below (see figure 4). Since the intention is not to claim any causal relationships, the extension focuses on illustrating the contextual factors that have been suggested to either facilitate or inhibit informal learning when working remotely.
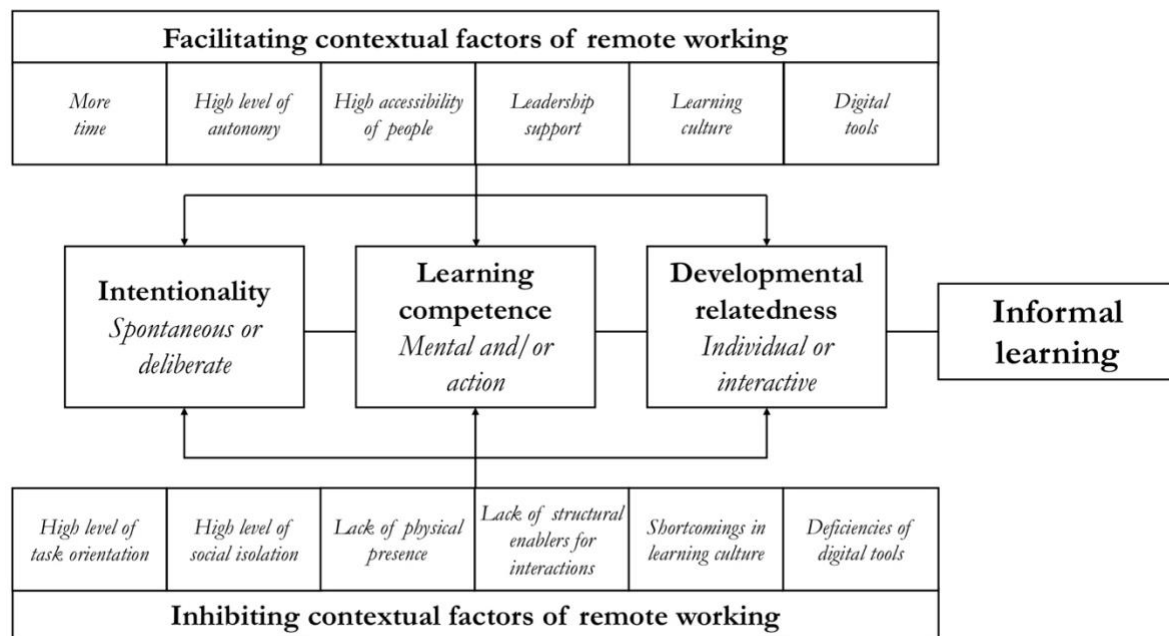

Figure 4 - Extended version of theoretical framework

6. Discussion

In this final chapter, the study's theoretical contributions (6.1) and its practical implications (6.2) is discussed. Subsequently, the limitations of the study (6.3) are presented, followed by suggestions for future research (6.4).

6.1 Theoretical Contributions

This study investigated the subjective perception of employees in terms of how their ability to learn informally has been influenced by working remotely. By investigating the research gap of how informal learning is influenced in remote working contexts, this study has combined three otherwise divided streams of research; informal workplace learning, digital learning and remote working research. By utilizing a dimensional perspective, the study is able to contribute with a deeper and more nuanced understanding of how the ability to learn informally is influenced when working remotely. In addition to this, the study has also provided insights to the research field in terms of extending the theoretical understanding of what types of contextual factors may influence informal learning. The study further contributes to informal workplace learning research by extending the framework of Jeong et al. (2018) by applying it in a completely new context (remote working), while at the same time extending its methodological application towards using it for the purpose of identifying facilitating and inhibiting contextual factors of informal learning.

In contrast to previous research, the findings of the study suggest that the ability to learn informally is influenced both negatively and positively by working remotely. It was found that individual learning generally seems to be facilitated by working remotely, in contrast to more spontaneous and interactive learning which appears to be inhibited by the contextual factors of remote working. Due to the rapid changes in work arrangements in organizations (Evans & Rainbird, 2002; Corso et al., 2002), the study has thus contributed with a well-needed development within the field of workplace learning research, by providing a better understanding of how informal learning may take place in the modern-day workplace.

6.2 Practical Implications

The findings of the study have several implications for practitioners, as insights about how informal learning is influenced in remote working environments may enhance their ability to promote beneficial conditions within their organizations to support informal learning. The findings shows that informal learning is highly contextual, thus implying that organizations need to adapt their practices in terms of promoting informal learning upon adopting remote working practices. By identifying certain inhibiting contextual factors, practitioners can become better equipped at providing proper support and tools to mitigate these, such as enabling spontaneous interactions or enabling relationship building. The identification of facilitating factors within the context can provide valuable insights as to how these can be leveraged so that learning outcomes can be maximized. However, the findings do caution practitioners to formalize informal learning activities too much, since this may hinder the natural occurrence of informal learning outcomes.

Despite the study being conducted under circumstances where employees worked fully remotely, the findings may still generate valuable lessons in understanding how remote working can influence informal learning under more flexible circumstances. Exactly how work arrangements will look in

the future remains uncertain, but the predictions are that more flexible arrangements will become commonplace (Bick, Blandin & Mertens, 2020; Savić, 2020). In order for organizations to continue to efficiently support learning, it will become crucial to tailor learning strategies and initiatives towards the characteristics of different contexts. The ambition should be to create a seamless learning experience for employees across physical and digital organizational settings, which requires a deep understanding of how learning is impacted by different contextual factors. The adaptation of learning practices will be vital for staying competitive in the future, and the current study could potentially be indicative of changes that need to be implemented in order to become a continuously learning organization in the contemporary workplace.

6.3 Limitations of the Study

As in all research, the findings of this study are subject to certain limitations. Firstly, although the aim of the study was not to achieve transferability, it is important to note that by using a single-case study method, the findings only project the perspectives of the twenty employees interviewed at the case company. It should therefore be stressed that the findings should not be viewed as an absolute measure of learning outcomes. However, upon investigating their perspectives the authors were able to identify different themes that may be relevant for both practice and research in terms of increasing the understanding for informal learning in remote working contexts. Secondly, since the study was conducted during the COVID-19 pandemic in 2021, remote working practices were forced upon the case company and its employees. The forced nature of remote working and other societal factors during the pandemic may have influenced the findings of the study and therefore needs to be considered. Lastly, there are limitations in terms of the selection of interviewees within the case company. Since it was not intended to do a comparison between different groups within the sample, the choice to interview employees from a variety of roles, departments and subsidiaries may have provided a dispersed image of the phenomenon that was investigated. This is likely a consequence of how learning may take a more central role in certain roles or departments. The variety of views that was captured did however enable a holistic understanding of how informal learning is impacted in organizations with remote working practices.

6.4 Future Research

The authors hope that this study will stimulate future research within the field that will further explore different organizational contexts and continue to develop the understanding of how informal learning may be influenced by this. To further strengthen the findings of this study, it would be relevant for future research to test the findings with a quantitative method, so that statistical support can be achieved. Despite the fact that studying a fully remote working arrangement provided many valuable insights, it would also be relevant for future research to study more flexible work arrangements, since these may correspond better to what the future of work holds. Finally, it would be appropriate to investigate the role of individual factors that may influence informal learning in remote working environments, as this was not explored in this study.

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8. Appendices

8.1 Appendix 1: Interview Sample

Participant	Type of interview	Type of role	Gender	Date of interview
Participant 1	Background	Manager	F	2021-03-17
Participant 2	Background	Manager	F	2021-03-09
Participant 3	Background	Non-manager	F	2021-03-22
Participant 4	Main	Manager	M	2021-03-12
Participant 5	Main	Manager	M	2021-03-19
Participant 6	Main	Manager	M	2021-03-19
Participant 7	Main	Manager	M	2021-03-15
Participant 8	Main	Manager	F	2021-03-19
Participant 9	Main	Manager	F	2021-03-18
Participant 10	Main	Manager	F	2021-03-16
Participant 11	Main	Non-manager	M	2021-03-15
Participant 12	Main	Non-manager	M	2021-03-15
Participant 13	Main	Non-manager	M	2021-03-12
Participant 14	Main	Non-manager	F	2021-03-22
Participant 15	Main	Non-manager	F	2021-03-09
Participant 16	Main	Non-manager	F	2021-03-18
Participant 17	Main	Non-manager	F	2021-03-16
Participant 18	Main	Non-manager	F	2021-03-09
Participant 19	Main	Non-manager	F	2021-03-09
Participant 20	Main	Non-manager	M	2021-03-08

8.2 Appendix 2: Interview Guide for Background Interviews

Topic	Question
Background information	● Can you describe your background at the company and the position that you currently hold?
General about the learning strategy	● How did the learning team come about? ● What is the purpose of having learning as a strategic focus? ● What is the long-term and short-term vision with learning? ● How have you been able to establish a learning-oriented culture?
Digital tools	● What digital tools have been implemented during the period that employees have been working remotely? ● What learning goals are associated with the digital learning tools offered to employees? ● What do you think could be reasons as to why not everyone might use these digital learning tools?
Effects of remote working	● Have you been forced to change your strategy with regards to learning since remote working was implemented? ● How do you currently work with encouraging learning when employees work remotely? ● Have you implemented any new initiatives specifically to promote learning when working remotely?
Challenges with learning during remote working	● What are the biggest challenges that you are currently facing when it comes to learning? ● What factors related to remote working do you think give rise to these challenges?
Outlook on future	● What are you currently working with, with regards to how learning can be improved in the future? ● Many predict that most organizations will become more flexible when it comes to remote working, how will this affect your work with learning moving forward?

8.3 Appendix 3: Interview Guide for Main Interviews

Topic	Question
Background information	- Can you describe your current role and your background within the company? - Do you have employees reporting to you?
General about learning	- How do you perceive that you have learned at work? - How have you handled situations where you have been confronted with something that you do not know how to handle based on your experience and existing knowledge?
Intentionality	- In what ways have you taken initiatives to learn something new or develop within something? - In what ways do you perceive that you have learned something in situations where the purpose was not to learn something to begin with?
Learning competence	If you look back on situations where you have learned something, to what extent do you believe that this has occurred through individual reflection compared to active actions, such as for example asking for advice?
Developmental relatedness: Individual	- To what extent do you believe that you have learned things on your own? - What methods do you use for individual learning? - How often have you stopped and actively reflected on situations with the purpose of learning something new and develop in your work? - How do you think that your ability to learn individually has been affected by working remotely?
Developmental relatedness: Interactive	- How do you perceive that you have learned things through interactions with your colleagues or your supervisor? - How do you perceive your opportunities for getting feedback or asking colleagues for advice? - Do you feel like you have had the opportunity to participate in discussions regarding for instance a challenge or a task that you are facing? - How do you believe that your ability to learn from or together with others have been affected by working remotely? - Is there any difference between your team and other teams in the organization?
Contextual factors	- What is your general opinion on working remotely? - What type of activities do you believe have worked well remotely? - What activities do you believe would be better suited physically?

- On a general level, in what way do you believe that your learning has been affected by working remotely?
    - What do you think causes this?
- In what ways have you experienced that you have been encouraged or have gotten support to learn during the time you have worked remotely?
    - How well do you believe that the digital learning tools that are available have facilitated your learning?
    - How well do you believe that the initiatives that have been implemented during remote working have facilitated your learning?