

Onboarding of Recent Graduates in the IT Sector in a Flexible Work Environment

Student: Joel Häggström

Student number: 2453797

Words: 18148



**Utrecht
University**

Abstract

The study examines the challenges employers and employees face in the IT sector when onboarding recent graduates in a flexible work environment. It also explores the impact of organizational contextual factors on the onboarding process. The research aimed to cover parts of the current research gap of onboarding recent graduates within a flexible work environment, as there has been a rise in hybrid and remote onboarding in the last couple of years. In this multiple-case qualitative study, 13 semi-structured interviews were done with participants from two large IT companies based in Sweden and the Netherlands. Participants were selected through purposive sampling, including human resources managers, team leaders, mentors, and recent graduates. The key finding in the study was the importance of being physically present during onboarding for a better socialization process, knowledge transfer, and understanding of organizational culture, which leads to an accelerated time-to-productivity for recent graduates. Also vital were the mentorship challenges observed, which included time constraints and communication issues when employees worked remotely. Lastly, the results highlighted the importance of organizational culture for successful onboarding, where an informal and open-door policy helps recent graduates integrate into the organization. Practical implications for employers include designing the onboarding process primarily on-site, utilizing transition strategies such as traineeship or part-time jobs for recent graduates, providing mentorship support, adapting an onboarding policy to sector-specific needs, and fostering an informal and open-door culture. Recent graduates can benefit from part-time jobs or traineeships to bridge the skills gap and prioritize in-office presence for social connections.

Keywords: Onboarding, Remote and hybrid onboarding, Recent graduates, Socialization, Mentorship, Time-to-productivity,

Table of Contents

1. Introduction	4
2. Theoretical Framework	8
2.1 Definition of Onboarding and Organizational Socialization.....	8
2.2 Aspects of Onboarding.....	9
2.3 Group Socialization.....	10
2.4 Traineeship	11
2.5 The Importance of Onboarding	12
2.6 Onboarding Recent Graduates	13
2.6 Online Onboarding and Challenges	15
2.7 Internal and External Organizational Contextual Factors	17
2.7.1 External Organizational Contextual Factor - The IT Sector	17
2.7.2 External Organizational Contextual Factor - University-to-Work Transition	17
2.7.2 Internal Organizational Contextual Factor - Organizational Culture.....	19
2.8 Expectations	21
3. Method.....	22
3.1 Research Design.....	22
3.2 Participants	24
3.3 Data Collection Procedures	25
3.4 Data Analysis	26
3.5 Validity and Reliability	27

4. Results.....	28
6.1 Onboarding and Traineeship Structure.....	29
6.2 Flexible work Environment.....	32
6.3 Hybrid Work Challenges in Onboarding.....	35
6.4 Mentorship Challenges	39
6.5 External Organizational Contextual Factors - IT Sectors.....	41
6.6 External Organizational Contextual Factors - University-to-Work Transition	42
6.7 Internal Organizational Contextual Factors - Organizational Culture/Structure	45
5. Discussion	47
5.1 The Onboarding and Traineeship Structures.....	47
5.2 Onboarding in a Hybrid Setting	48
5.3 Mentorship Challenges	50
5.4 External Organizational Contextual Factor – IT Sector and University-to-Work Transition.....	50
5.6 Internal Organizational Contextual Factor – Organizational Culture.....	52
5.7 Limitations	52
5.8 Further Research.....	54
5.9 Practical Implications	56
5.10 Conclusion.....	57
References.....	59

1. Introduction

Onboarding is how new employees in a company or organization acquire the necessary knowledge, skills, and behaviors to become effective organizational members (Weinstock, 2015). The subject of onboarding has been extensively researched for over 20 years, and the research has been shown to positively affect retention, engagement, and performance (Ganzel, 1998; Markos & Sridevi, 2010). A well-structured onboarding is also linked to a higher time to productivity, which means how long it takes for a new employee to make an expected net contribution to the organization (Dai & De Meuse, 2007). However, with the rise of flexible work environments created by the pandemic, there is a need for research on the onboarding process in flexible work environments as, unfortunately, only a few studies are available on the onboarding process in an organization where most or all the work is conducted virtually (Kossek et al., 2021). *A flexible work environment can generally be negotiated through terms of employment related to the time and place of work (McNall et al., 2009). Today, flexible work environments are associated with remote or hybrid work (Kossek et al., 2021). International Labour Organization defines remote work as (ILO) "Telework or remote work can be defined as the work performed through the use of information communication technology (ICTs such as smartphones, tablets, laptops, and desktop computers) outside the employer's premises" (ILO, 2020, p. 6).*

When an organization moves to remote or hybrid work, many processes need to change, and one is explicitly the onboarding process of new employees. In one study conducted at the beginning of the pandemic, software developers at Microsoft were surveyed and questioned about the online onboarding process. The researchers could conclude that communication was hampered by remote work. Furthermore, the study showed that onboarded struggled to ask for help, build connections with their team, and bond with teammates (Rodeghero et al., 2021). A well-structured and organized onboarding allows employers to provide new

employees with an early win and reduce their turnaround time (Maurer, 2015). Important to note is that the onboarding process differs in every organization source. The onboarding process has a few cornerstones. However, as organizations vary in culture and size, it is also natural that the onboarding process is tailored to the organization with different policies; for example, some companies might need a longer and more structured onboarding as their culture and product/service are highly complicated compared to others so having a tailored onboarding policy to the organizations need is essential to create the best possible onboarding (Baur, 2010).

The study will focus on IT, a business sector that deals with everything computing, including hardware, software, and telecommunications. The focus on the IT sector was decided as many employees already work remotely or hybrid, and most workers want a flexible work environment. It has also been shown that a majority of employees in the IT sector find it extremely or very important that their next role/organization is at least remotely three days a week. It is then vital for organizations to have an effective onboarding process (Dice, 2022). Furthermore, many organizations in the sector have done remote work for a while, which means that problems and challenges might arise at the beginning if a new way of working has disappeared.

Furthermore, the study will specifically focus on the onboarding process for newly graduated in the IT sector and what challenges organizations have experienced in the last year since the pandemic. Recent graduates studied online during the pandemic, and most of their time at university was spent in front of a laptop in online lectures (Masalimova et al., 2022).

Research has shown that online education could affect soft skills development, such as communication and collaboration skills (Kamysbayeva et al., 2021). Graduates might have higher technical skills due to having classes online during the pandemic and learning the different tools needed for remote or hybrid work; however, they might instead lack other

essential skills needed to make an effective transition from university to work through onboarding and a quick time to productivity. Therefore, it would be scientifically interesting to investigate experienced challenges for organizations while onboarding newly graduated students. Previous research suggests that IT graduates already need technical and social skills. However, soft skills are the most lacking (Aasheim et al., 2009; Downey et al., 2008). Lastly, the study will also focus on organizational contextual factors impacting the onboarding process. The definition of the concept was developed from previous studies and can be described as internal and external factors that influence the design and implementation of onboarding (Rusu et al., 2016). Four distinct contextual factors have been identified: the IT sector and how the pressure from being in the specific sector changes the onboarding. The second and third contextual factor is the rise of online and blended learning in higher education and the current skills gap for IT students (Aasheim et al., 2009; Downey et al., 2008; Masalimova et al., 2022). The internal factor that was identified to have an impact on onboarding is the organizational culture.

With the help of the previous literature presented, an aim and a research question have been formulated. The research aims to study the perceived challenges employers and employees in the IT sector experience when onboarding recent graduates and to investigate if and how the previously presented organizational contextual factors impact the onboarding process in the organizations studied. The following is the research question for the study:

What challenges do employers and employees in the IT sector experience when onboarding graduates in a flexible work situation, and how do the organizational contextual factors shape the experiences?

The scientific contributions of this study are threefold and have been presented in the pages above. First, there is a research gap regarding onboarding in a remote and hybrid work setting after the rise of flexible work environments in the last couple of years (Kossek et al., 2021). As mentioned previously, only a few studies have been done on the topic. Secondly, the study will contribute to the research on the perceived challenges employers and employees experience while onboarding occurs in a flexible work environment, as previous research has shown that different challenges are present (Rodeghero et al., 2021). However, there needs to be more research today, and the study aims to add to this research. The third and last scientific contribution is to investigate if onboarding recent graduates who have completed most of their higher education online or in a blended learning scheme has contributed to different challenges for employers. It is highly relevant due to a rise in blended learning in recent years (Kvist & Dalstål Gershagen, 2021).

Furthermore, practical and societal relevance has been identified as well. For universities, it might shed some light on what skillsets the education program should focus on to help increase graduates' employability (graduate's achievements and the person's potential to obtain a graduate job) (Yorke, 2006). As more and more education move online, and even after the pandemic, blended learning (combining in-person and computer-mediated instruction) is used at many universities. It is also relevant for society to know the consequences of online education and how employers can adapt to the potential gaps created by online lectures (Dziuban et al., 2018).

Moreover, the education of IT professionals costs money for societies. Suppose the graduates do not integrate fully during onboarding; in that case, it could lead to a high turnover rate towards other jobs, and today, where digitalization is happening rapidly, there is a need for IT professionals (OECD, 2021).

Lastly, the practical contributions are that it is relevant for HR practitioners to know how the recent pandemic affected graduates, what challenges have become more prevalent during onboarding in the industry, and how companies have adjusted to handle the process as well as possible. Knowing what an effective onboarding strategy is for graduates leads to faster time-to-productivity and less investment needed for organizations, which means less money spent and higher profit margins.

2. Theoretical Framework

The framework is structured into multiple sections with relevant theories and concepts and how they relate to each other to help answer the research questions. The first main concepts discussed are onboarding; the aspects, content, effects, online onboarding, and challenges are defined and linked. Group socialization, internal and external context factors will also be discussed and linked to onboarding. The chapter then moves on to defining recent graduates and looking into research on onboarding and retaining graduates. The last two sections of the framework connect the rise in online and blended education with the skills gap existing in recent IT graduates.

2.1 Definition of Onboarding and Organizational Socialization

First, we need to define onboarding. In this study, as mentioned in the introduction, onboarding is defined as how new employees in a company or organization acquire the necessary knowledge, skills, and behaviors to become effective organizational members (Weinstock, D, 2015). In another article, the authors describe socialization and onboarding as two concepts connected. Organizational socialization is when new employees move from an outsider to the organization to become insiders. Onboarding is the knowledge, skills, and behaviors employees need to become insiders (Bauer & Erdogan, 2011). The onboarding

practices, programs, and policies are put in place by mainly HR departments if such a department exists, and if not, it is the responsibility of management (SHRM, 2021).

2.2 Aspects of Onboarding

According to research by Dr. Talya Bauer in 2010, the four C's are aspects necessary for a successful onboarding process. The four Cs are compliance, clarification, culture, and connection. Compliance is the first level of onboarding and involves learning the organization's basic rules and policies and filling out the necessary paperwork. Second, clarification of job tasks to ensure that the new employees understand their roles and responsibilities. Culture explains the norms and values of the organization. The last C refers to the connection when new employees develop relationships with other organization members (Bauer, 2010)—the four C's need to be present for a company to integrate graduates successfully. However, Baur's four C's is advice and a theory that still needs further examination, even though it is a common practice in the world of Human Resource Management.

A recent study investigated the onboarding of software developers in the IT sector. They divided onboarding activities into three categories, orientation, training, and support. The first of the onboarding activities, the orientation of new employees, can be defined as a program to introduce them to their job, co-workers, and the larger organization (Sharma & Stol, 2020). The second onboarding activity, training, refer to "task performance." Therefore, the focus is on tasks the recruit is expected to perform. There are three broad categories of training:

1. Practice-based learning (PBL)
2. Class-based learning
3. Mentoring

Last, we have support among the onboarding activities, a continuous process that starts with the previously mentioned activities and could be feedback and transparency. The authors argue that a support mechanism during onboarding is linked to a successful strategy. Authors link the activities with onboarding success, organizational fit, and turnover intention. The results showed that these activities were associated with successfully onboarding new employees. However, training has a slight positive effect, and they argue that the onboarding training can only partially cover the existing skills gaps (Sharma & Stol, 2020).

In this research, onboarding is regarded as a process toward socialization; therefore, a broad approach to onboarding is used, which covers the aspects of compliance, clarification, culture, and connection. The aspects can be implemented in various ways, as described above, through orientation, training, and support.

2.3 Group Socialization

In this research, group socialization is how individuals learn and adapt to a specific group's norms, values, and behaviors (Moreland & Levine, 2002). Previous research has shown that successful group socialization can lead to higher job satisfaction, commitment, and performance levels (Bauer et al., 2007). Furthermore, group socialization can also lead to knowledge and skills among employees being transferred to the new individual and, in turn, lead to increased productivity and efficiency (Jones, 2012). However, negative and unsuccessful group socialization can harm employees, such as less commitment and an even higher turnover rate (Ashforth & Mael, 1989). Successful group socialization can be achieved through various strategies such as mentoring, team-building activities, and social events (Saks & Gruman, 2012).

When individuals go through group socialization, it can be divided into different phases; the first phase an individual goes through is the investigation phase. During the investigation phase, the individual is part of the recruitment process, and the group is looking for people

who might contribute to attaining group goals. The second phase is socialization; during socialization, the group wants the individual to change to contribute more to the common goals. If the group is successful, the individual undergoes assimilation into the group. The individual is simultaneously trying to change the group to satisfy the person's personal needs. The third phase is called the maintenance phase, and it refers to the part when the group and the individual engage in a role negotiation. If the role negotiation fails, the role transition of divergence occurs in the socialization, and the individual becomes a marginal member. If the role negotiation is successful, the commitment from both parties is the highest, and the individual has been integrated into the group (Levine & Moreland, 1994).

2.4 Traineeship

To help bridge the gap between university and employment, recent graduates seek traineeship, paid positions offering practical experience in their chosen field. Traineeships can offer numerous advantages for recent graduates, such as hands-on training to apply the trainee's knowledge in the real world. The hands-on experience has shown their skills increase employability as their perceived skills increase and can make a smoother transition to the workforce (Chen et al., 2018).

Having a mentor can play a crucial role in traineeship programs, as a mentor can offer constructive suggestions to enhance the trainees' skills and provide regular feedback to offer career guidance (Jeske & Linehan, 2020). As traineeships progress, providing constructive feedback, monitoring progress, and offering suggestions to improve skills are critical to successful mentorship and traineeship (McDonald & Wilson-Mah, 2022).

Furthermore, as a recent graduate, a traineeship can be a great way to decide on career goals. By taking on various tasks and responsibilities during the traineeship, the recent graduate will

better understand different aspects of their field, which can help the person make informed decisions about their future career path (Schnoes et al., 2018).

Because they last for weeks or months, extended onboarding programs, such as traineeships, can provide time for recent graduates to develop their skills. A study by Bauer and Erdogan (2011) shows that longer onboarding processes, such as a traineeship, have been correlated with two critical benefits for organizations: lower turnover rates among new employees, as well as an overall improvement in job performance.

With the previous literature in mind, traineeships can be seen as a longer onboarding process for recent graduates to bridge the skills gap created when transitioning from university to a professional career by giving recent graduates hands-on experience and guidance through mentorship and career direction. By providing structured programs and mentorship, companies can create an environment that helps trainees develop the skills they need to succeed in their future careers. The concept of traineeship is structured the same way as onboarding, except it is over a more extended period to ease the graduate into the new role.

2.5 The Importance of Onboarding

Previous research has shown that a poor onboarding process harms an organization's bottom line. An organization's bottom line is a business's net income, earnings, or profit (Snell, 2006). In addition, as mentioned in the introduction, an employee with a negative onboarding experience is highly likely to leave the organization after a short period. Studies have shown that employee turnover is highest early in an employee's tenure and even as early as the first 45 days on the job. Therefore, a well-structured onboarding is vital to welcoming and integrating employees into the organization (Maurer, 2015).

Furthermore, a structured and successful onboarding process has been linked to higher employee engagement by the employee, which in turn is linked to increased productivity and

a reduction in the turnover rate. Therefore, organizations that want a lower turnover rate, enhanced engagement, and employee productivity should have effective onboarding (Ganzel, 1998; Markos & Sridevi, 2010). Important to mention is that even a pre-pandemic study showed that only a fraction of employees believed that employers did an excellent job on the onboarding process. The study could conclude that organizations do not prioritize onboarding and see it as a tiny piece of an employee's journey; however, employees make judgments and form opinions about the organization from the first day. Considering that, the initial impression matters (Gallup, 2017).

Furthermore, as mentioned in the introduction, onboarding affects the time-to-productivity, which measures how long it takes for a new employee to make an expected net contribution to the organization. Time-to-productivity starts the first day an employee enters the organization and ends when the employee has reached net contribution. Before reaching an expected net contribution, the employee will consume resources such as time from other peers that could have been used for profitable work. Time-to-productivity includes onboarding, as employers invest in turning the employee into a net contribution. If this investment is not profitable, it will hurt the organization's bottom line (Kvist & Dalstål Gershagen, 2021). Furthermore, it can take up to six months for junior employees to integrate and produce a net contribution (mthree, 2021) Krasman (2015) states that companies should measure effectiveness and re-evaluate the process to reduce the time to productivity.

2.6 Onboarding Recent Graduates

The study's focus is on recent graduates. According to the U.S. Department of State Recent Graduates Program (2023), people are considered recent graduates for up to 2 years after graduating from college or university.

In the previous chapters, we have mentioned successful onboarding as a way to retain employees and recent graduates, which is the same for recent graduates. Other ways to retain

recent graduates are like later-career professionals: competitive salaries, flexible hours, the ability to work remotely, and professional development opportunities (Zaharee et al., 2018).

What has been shown to differ in previous research is that recent graduates prefer quicker rotation through projects and roles, more continuous feedback, and more paid time off.

Considering this, organizations must showcase early on that these opportunities exist, as early as the orientation part of the onboarding activities. Also, start giving feedback as early as possible to retain recent graduates. Looking at the onboarding activities, giving feedback should be incorporated into the support activity (Zaharee et al., 2018).

Furthermore, young professionals are nowadays looking for work that they perceive as meaningful. It then becomes even necessary for organizations to explain and convey the organization's purpose and the purpose in the recent graduates' work during the onboarding.

Clarifying the purpose is linked to two of Bauer's (2010) four C's of onboarding, compliance, and culture, and the onboarding activity of orientation. Another crucial thing to retain recent graduates is to be transparent. This means being open with information even before the onboarding process starts and keeping transparency throughout; this is also a part of the support activity that should permeate the onboarding process (Chillakuri, 2020).

In summary, recent graduates have graduated from college or university in the last two years. Therefore, a company must adjust to the needs of recent graduates to retain and integrate recent graduates. For example, today's recent graduates want to know that their work is meaningful, and conveying the organization's culture and purpose is even more critical than before during the onboarding process. Furthermore, having a transparent manager and organization is already vital from the start already for recent graduates.

2.6 Online Onboarding and Challenges

There has been a rise in flexible work environments, such as remote and hybrid work, in the last couple of years, but there has also been a rise in onboarding moving online (Carlos & Muralles, 2021). However, research has shown that new virtual onboarding employees can miss out on developing deep social connections with team members and have fewer opportunities to learn social information, such as normative team behavior sources (Scott et al., 2021). In the same study, the research advocates focusing on the three C's of Create Structure, Connect People, and Continue Adapting. The three C's are building on top of Baur's four C's (2010), adding on it to adapt to remote work but primarily for onboarding during a similar situation to COVID-19 (Scott et al., 2021). In addition, as mentioned in the previous section, it has been shown that online communication makes it hard for a person to see and experience critical social cues and non-verbal signs (Lieberman & Schroeder, 2020). This is in line with the Social Presence Theory, which argues that online media differ from in-face communication and, therefore, in the ability to transmit visual and verbal cues (e.g., physical distance, gaze, postures, and facial expressions). The theory states that different mediums are greater than others to create social connections, with videoconferencing or telephone calls being greater than email. However, face-to-face interactions are more effective thanks to the broader capacity to convey social presence than online communication (Zelkowitz, 2010).

A study made during the pandemic showed that companies had difficulties onboarding new employees because a lot was lost when conveying the subtleties of core values and baseline beliefs virtually. The firms emphasized a need for more personal touches and flexibility of in-person coaching. Therefore, they attempted to create online coaching, which worked to a certain degree (Jung & Silva, 2021). Furthermore, employees feel more institutionalized than individualized during online onboarding (Booker et al., 2022).

Communication is a vital aspect of the workplace, and it can help build relationships, share ideas, and achieve goals in the organization. However, with the rise of remote and hybrid work, communication has become more challenging for organizations. This is also the case for onboarding in a remote setting. Research has shown that a lack of in-person communication can lead to employees feeling isolated and disconnected, which could affect employees' productivity and job satisfaction among employees in an organization (Toscano & Zappalà, 2020). In addition, it has also been shown that online communication makes it hard to see and experience critical social cues and non-verbal signs (Lieberman & Schroeder, 2020). When employees use digital communication tools, such as email or text messages, conveying the right tone and emotion can be more challenging. This can lead to employee misunderstandings and conflict (Hughes & Davis, 2020). In previous literature, it has been shown that employees that work remotely are more likely to feel left out of meaningful conversations and are also less likely to build strong relationships with their co-workers. Therefore, feeling left out is a communication barrier employers must consider when having remote workers (Grenny, 2021). In the same study discussed in the introduction, software developers at Microsoft were surveyed and questioned about the online onboarding process at the beginning of the pandemic. As a result, they could conclude that communication was hampered by remote work. Furthermore, the study showed that onboarded struggled to ask for help, build connections with their team, and bond with teammates (Rodeghero et al., 2021).

To conclude, online onboarding has increased in the last few years with the rise of flexible working environments such as remote and hybrid work. However, many new challenges have come up as it is harder to integrate new employees through online onboarding due to the lack of psychological presence, and this means that it is more difficult to build social connections.

2.7 Internal and External Organizational Contextual Factors

In this study, organizational contextual factors are internal and external factors that influence the design and implementation of onboarding. This definition is based on previous studies regarding organizational contextual factors (Rusu et al., 2016). The external factors are in this research the sector the two companies are in, the IT sector, the rise of online and blended learning in higher education since COVID-19, and the skills gap for IT graduates. The internal factor that was identified to have an impact on onboarding is the organizational culture.

2.7.1 External Organizational Contextual Factor - The IT Sector

The IT sector, also known as the information technology sector, refers to the industry involved in developing, implementing, and managing computer-based systems, software applications, and IT infrastructure. The sector encompasses all businesses and organizations that provide products, services, and solutions related to information technology (Frankenfield, 2022). Furthermore, the sector is characterized by its dynamic nature, rapid technological advancements, and continuous innovation (Gonzalez & Gonzalez, 2023). According to data, the sector has one of the highest turnover rates of any sector, contributing to the fast-changing environment. (LinkedIn, 2022). The onboarding process might be affected by the industry's dynamic nature and is, therefore, an interesting external contextual factor to research.

2.7.2 External Organizational Contextual Factor - University-to-Work Transition

Another external contextual factor that might affect the onboarding of recent graduates is the change in higher education towards an online and blended learning style, as it is the fastest-growing segment of higher education. For example, during the recent pandemic, most students had to move online and conduct all lectures and exams online for almost two years (Masalimova et al., 2022).

Despite the growth of online education, there has been a longstanding controversy about the quality of online lectures compared to the in-person approach. According to Baum (2020), higher education actors and stakeholders must still be convinced about online education's merits. A study from the National Bureau of Economic Research (2021) in the USA showed that students having in-person lectures performed better compared to their online counterparts in every aspect, with higher grades, lower dropout rates, and the likelihood of receiving a passing grade. Grades significantly rose during the spring of 2020. The rise is linked to a more flexible and compassionate approach toward students because of the alleviating difficulties caused by COVID-19. The modifications and adaptations of policies were implemented not to penalize students, as they have experienced countless disruptions and barriers to effective learning (Altindag et al., 2021).

Furthermore, a study where 300 graduates were asked and allowed to discuss and compare personal learning experiences during COVID-19 showed that online learning is an efficient tool for developing hard skills while being less effective for improving soft skills. Instead, instructors were advised to lower expectations, reduce required coursework, and be more flexible overall toward students (Lederman, 2020; Lin, 2021). Research has shown that online education needs more specific learning experiences and practical hands-on skills. Also, online education has led to lower critical thinking and debate skills (Coman et al., 2020)

The rise of online education could have led to an increase in the already existing skills gap in IT graduates. According to Berge and Frey (2015), the European labor markets have witnessed a substantial disruption due to the introduction of digital technologies. The disruption has created a demand for different skillset in an employer and a demand for workers with problem-solving, creative, and social skills. Both technical and social skills are mentioned in previous literature as lacking in graduates. However, soft skills are seen to be

most lacking in IT graduates. In addition, graduates lack the skills mentioned; they need to develop to improve teamwork and communication (Aasheim et al., 2009; Downey et al., 2008).

Bridging the current skills gap is something that employers, employees, and graduates would be interested in solving. For employees and graduates, broadening their skills would increase human capital (Frederiksen et al., 2017). According to new theories, human capital is the sum of individuals' congenital and acquired skills, knowledge, and experiences. Higher human capital has also been linked to increased perceived employability (Forrier et al., 2015). In addition, research has shown that increased human capital is advantageous for career success (Frederiksen et al., 2017). For employers, human capital investments have been linked to increased employee performance (Bapna et al., 2013).

To conclude, online education is less effective than in-person lectures and classes, with higher dropout rates and lower grades. It has also been linked to being less effective in improving soft skills such as teamwork and communication. This is relevant for onboarding in a flexible work environment, as online onboarding could be less effective than in the office. The rise in online education has widened the already existing skills gap in IT graduates. Employers and employees would want to solve the skills gap that already exists for both the employee's human capital and employability, but also for the employers as investments in employees' human capital have been seen to increase performance.

2.7.2 Internal Organizational Contextual Factor - Organizational Culture

The last contextual factor that will be discussed is Organizational culture; this is an internal contextual factor as it is something internal that is unique for each organization. Organizational culture can be defined as the shared values, beliefs, behaviors, and attitudes in an organization that shapes how employees interact and work together (Bellot, 2011). A positive perceived organizational culture has been linked to organizational

performance, as it can impact employees' motivation, satisfaction, and organizational commitment. In contrast, the opposite has been shown to lead to high turnover rates and lower organizational commitment (Cameron & Quinn, 2011). In addition, various factors can influence organizational cultures, such as recruitment and selection and the leadership style of managers in the organization (Schein, 1992). In Baur's four C's (2010), culture is a vital aspect of onboarding; therefore, an organization must convey the culture of the organization during the onboarding process.

The pressures that can affect the organizational culture are broader societal values and norms that can differ between countries or even regions within a country. The values and norms can influence employee recruitment, socialization, and retention (Scott, 2014). Crucial is that research has shown that organizations that are supportive of their culture and values are more likely to be profitable and succeed (DiMaggio & Powell, 1991). Societal pressures can also shape the strategies and behaviors of organizations. For example, an organization may adopt new policies or practices in response to changes in societal values to seek legitimacy (Scott, 2014).

To sum up, *Organizational culture* can be defined as an organization's shared values, beliefs, behaviors, and attitudes. It shapes the way people within the organization interact and work together. A positive perceived culture has been linked to more substantial organizational outcomes. With all of this in mind, the culture might impact the way the organization structures its onboarding and impact the challenges a company experiences while onboarding recent graduates.

2.8 Expectations

The theories and concepts described in the theoretical framework have formulated expectations for the research. From the literature, the expected main challenge while onboarding recent graduates in a flexible work environment is the difficulty in creating social connections between other team members. The expectation was developed through the previous literature and the Social Presence Theory, which argues that social connections are harder to create online due to the different abilities of media to transmit visual and verbal cues. With this in mind, it should be more difficult for employees to form social bonds through remote work. In addition, recent graduates' expected skills gap is social skills, as most of their education was online and the rise of blended learning. The expected skills gap is likely linked to the lack of training in social skills students get when having online education. Another challenge that might have arisen is the increase in time-to-productivity. The increase would be linked to the increased time to create social bonds. Creating social bonds is part of Baur's four C's under connection (Bauer, 2010) and essential for a successful and quick onboarding process. Therefore, a lack of social connection could lead to a slower integration of new employees.

Furthermore, as recent graduates find it more crucial than before that they have a meaningful job, organizations have challenges conveying this message through online and hybrid work. In addition, research has shown that online onboarding makes getting the subtleties of an organization's core values and baseline beliefs harder (Jung & Silva, 2021). Lastly, the expectation of the external organizational contextual factor of the companies being in the IT sector on the onboarding process is that the dynamic nature affects the process and is, therefore, an interesting external contextual factor to research (Gonzalez & Gonzalez, 2023). Also, as mentioned in the theoretical framework, the internal contextual factor of

organizational culture could affect how effective the process is and how the organization structures its onboarding process for recent graduates.

3. Method

The following section details the steps used in a qualitative study that examined the challenges employers and employees to face when they bring new graduates into remote/hybrid work environments within IT companies. The study involved semi-structured interviews with 13 employees from two large IT companies, one based in Sweden (700 employees) and the other in the Netherlands (over 5,000). The interviews were transcribed, and the resulting text was analyzed using a coding process that included 21 distinct categories. This section describes the research design, participant selection process, data collection procedures, and analysis techniques used in this study. It ends with a section on validity and reliability.

3.1 Research Design

A qualitative multiple-case study was used; a multiple-case study is when two or more cases are researched and compared. Multiple-case studies allow for a broader understanding of the phenomenon studied and capture its multiple dimensions, perspectives, and facets as the researcher can compare and contrast different cases. Furthermore, using a qualitative multiple case study allowed for flexible research, which is necessary for this research as the research question is broader and the results are less predictable (Gustafsson, 2017). Flexible data collection is necessary when the question in the research is explorative, like the one in this study. The question is trying to answer a complex issue where the answer will have a multilevel answer. There might be multiple reasons for the challenges organizations experience during the onboarding process of graduates, and flexible data collection is

necessary to gather a multilevel answer (Rahman, 2017). Furthermore, more in-depth answers are needed to answer the research questions formulated. Using qualitative research will lead to this using one-on-one interviews and focus groups; the interview objectives can express their feelings, opinions, and experiences, which is impossible in a quantitative approach (Rahman, 2017).

The research question in this study is broader, and the results are less predictable as research into the subject is in its infancy. Lastly, a qualitative research design was chosen to understand the challenges employers and employees face during the onboarding process for recent graduates in the hybrid/remote work setup. Furthermore, a qualitative research design is more appropriate as it offers the opportunity to explore a variety of experienced challenges and the reasons behind them. Semi-structured interviews facilitated an in-depth exploration of the participants' experiences, perceptions, and perspectives. The study aimed to uncover rich and detailed insights into the research question.

The downside of using a qualitative approach is that the smaller sample size raises the issue of generalizability to the whole population. Lastly, as the primary research question in this study has yet to be studied before in any context, mainly as online education is a new concept and the measurements from the pandemic ended a year ago, the consequences of it are only now possible to measure and research. It might therefore be hard to generalize the results to the whole population; however, it can give an indication and raise further research possibilities (Rahman, 2017).

3.2 Participants

A sample from two large IT companies was selected through purposive sampling. Eight interviews were conducted in a smaller Swedish company, while five were in a larger Dutch firm. The two organizations where the data was collected have many similar features, such as both are in the IT sector and both are large enterprises. Both are operating in an international environment. Collecting data from companies in the same sector in two countries with similar features can help define how institutional context affects onboarding. However, they had two different strategies for integrating recent graduates; Company D used a traineeship program, while Company S used a part-time strategy where they hired students at the end of their studies. The participants all had roles in the onboarding or the traineeship process, such as human resources managers, team leaders, and mentors and recent graduates (who graduated from university within two years of the interview) that was either going through the traineeship or onboarding process right now or in the last two years. The reason for interviewing both graduates but also managers, team leaders, and mentors was to represent both employer and employee perspectives. In Company D, two trainees were interviewed, and three employers, which included the HR manager, Campus Recruiter, and Manager/Mentor for two trainees, were interviewed. In Company S, three human resource partners, alongside the company's human resource manager, and four employees recently graduated from university. One of the recent graduates was also a mentor for another new employee at the time of the interview. In Company D, the gender distribution was three men and two women; in Company S, the distribution was six women and two men. Both the recent graduates and the employees representing the employer had experiences with the onboarding and traineeship process firsthand. The diversity of perspectives helped the researcher understand the challenges employers and employees face during recent graduates' onboarding.

Participants were chosen based on their expertise and experience in the onboarding process with the help of one manager in each company. The manager helped to find relevant participants and helped to contact and to schedule interviews. During the initial stages of the research, the aim was to do eight interviews in each company; only five were done in the Dutch company. However, after the twelve interviews were done, a saturation started to take place when transcribing and analyzing the data; it showed no new information or themes had been observed in the last interviews, which indicated that a need for eight interviews in the Dutch Company was not needed and is not problematic when discussing the findings (Guest et al., 2006).

3.3 Data Collection Procedures

Semi-structured interviews were conducted as the primary method of data collection. The interviews were scheduled at mutually convenient times and were conducted remotely through video conferencing using the video conference program Microsoft Teams.

Prior to the interviews, informed consent was obtained from each participant. Participants were informed that participating in these studies was voluntary and could be terminated without explanation or penalty. Also mentioned before the interview was that the audio recordings would be transcribed verbatim by the researcher to ensure accurate and faithful representations of what participants said during the interaction—this allowed for later analysis.

Two interview guides were developed, one for the participants representing the employers and one for the employees and recent graduates. The guides were developed based on the theoretical framework research question and aimed to explore the challenges encountered during the onboarding process for recent graduates in hybrid/remote work. The guides consisted of open-ended questions that allowed participants to share their experiences, opinions, and insights on the topic. Both started by introducing the research aim and asking

for consent to record and then moved on to ask questions about what the participant did in the organization and how long the person had been there. The questions then differed depending on if the interviewee was an employer or an employee. The interviews with the employees focused mainly on their experiences during the onboarding and traineeship, how they perceived the structure, the feedback given, and what type of perceived struggles they had transitioning from university to a job. An example question would be, “*Can you tell me how you experienced the guidance and support you received during the onboarding process?*” Lastly, how they perceive the organizational culture and flexible work environment.

The other interview guide was structured similarly, with questions about perceptions and their own experience; however, the questions were structured to ask questions around the content and structure of the onboarding and traineeship. How the onboarding process got developed and what is vital for the organization when onboarding. Also, a focus on how they work in the organization to ensure that the new employees get socialized right. Furthermore, a question was asked to see if and how they adapt to the needs of recent graduates. Lastly, a question was asked if they think the onboarding and traineeship as been affected by being in the IT sector. The interview guides are in the appendix for a more in-depth read into how they are structured.

3.4 Data Analysis

The analysis of the interview data involved several stages to ensure validity, including transcription, coding, and categorization—the analysis aimed to identify patterns, themes, and categories that arise from the participant's responses.

First, the interviews were transcribed verbatim to ensure the accuracy of the analysis. The transcripts were then coded, with initial codes created from the theoretical framework. The coding process was conducted manually with open coding, a common first step in analyzing

qualitative data, where the coding happens without a pre-defined code list. The identified codes were continuously reviewed during the analyses to ensure accuracy and consistency. Then for the second step, axial coding was done, where the codes were broken down into 21 distinct categories. One example is the following quote *"Flexible because the sector changes all the time. For example, now with AI and its impact on the sector and how this affects the onboarding of our new employees."* First, an open code was created, which was *Flexible IT Sector*. Then when all of the interviews were coded, a broader, more distinct category was created, and, in this case, it was *Onboarding/Traineeship IT Sector*. This was done with all relevant data collected during the interviews.

Lastly, selective coding was done where the core category was defined as *Onboarding/Traineeship*, as this was the core that all the data had in common.

Ultimately, the categories provided a framework for organizing the semi-structured interview results. The distinct categories that emerged from the analysis can be found in the appendix. The findings were then developed and easily described from the categories listed above.

3.5 Validity and Reliability

To create validity in the research, triangulation was used. Triangulation refers to using multiple datasets, methods, theories, or investigators to address the research question. Triangulation is mainly used in qualitative research. In this study, the triangulation was through the participants in a so-called data triangulation. The interviews were done with managers, mentors, and recent graduates to create three data collection points. Doing this creates three different perspectives, enhancing the data's validity (Bhandari, 2023).

Furthermore, even though the interviews were semi-structured, the questions in the interview guides were all asked, and all the participants got the same questions asked to get an unbiased answer from the participant.

Ethically there was a massive focus on anonymity stated at the beginning of the interview but also that an NDA (Non-Disclosure Agreement) before conducting the interviews in Company S. This was to ensure that the data was going to stay anonymous to get the participants to state their feelings about the onboarding and traineeship in the two companies.

Reliability refers to the measures the researcher does to ensure that the process and the results have replicable outcomes. This means that the same results should occur when applying the same method to the same sample under the same conditions (Middleton, 2023).

In the section on validity, a data triangulation is described, this also increases the reliability by creating a broader perspective using the three main participants in the onboarding process, and that helps to identify the challenges perceived in onboarding, which increases the chances of other companies experiencing the same type of challenges. Also, using two companies increases the chances of it being able to replicate the study and expect the same results, as this also broadens the perspective.

4. Results

As described in the introduction, the research has focused on perceived challenges employers and employees experience during the onboarding process in a flexible work situation, as hybrid and remote work has increased drastically since COVID-19. The focus has been specifically on recent graduates and in the IT sector. As mentioned in the method chapter, the Dutch company is, in this case, *Company D*, and the Swedish *Company S*.

The chapter starts with discussing the results around the experienced challenges of onboarding in a flexible work environment. The first part of the section discusses the structure of the onboarding and traineeship in the companies studied; it also showcases the differences between the two strategies used to integrate recent graduates. The following

section presents the flexible work environment in the companies, the structure of it, and how the companies are working hybrid now both during onboarding/traineeship and in their regular everyday work. After that, a section discusses the perceived challenges of hybrid onboarding. This is followed up with the challenges regarding mentorship. Then the focus switches to the organizational contextual factors, starting with the external factors discussing the IT Sectors' impact on onboarding. Then a section with the impact higher education and the skills gap might have had on recent graduates. Lastly, the impact of the internal organizational factor, organizational culture, will be presented.

6.1 Onboarding and Traineeship Structure

ONBOARDING COMPANY S	TRAINEESHIP COMPANY D
30-60-90 days plan	12 Months
Class-based training	Class-based training- Certifications
Practice-based training	Practice-based training
Mentor (Buddy)	Mentor (Buddy) and Manager
Teams chat and WhatsApp group	Teams chat and WhatsApp group
Team building activates - Team lunch etc.	Team building activates – Escape room etc.
Regular feedback meetings with mentor	Regular feedback meetings with Mentor
Feedback meeting with other employees	Feedback meeting with other trainees
Digital feedback survey	

Table 1. Similarities and differences between the onboarding and traineeship in the two companies.

Above is a table with similarities and differences between the onboarding in Company S and the traineeship in Company D. Overall, there are many similarities between the companies' strategies to integrate recent graduates into their organization. The main difference is that the traineeship is a year while the onboarding in Company S is three months, and, at the

beginning of the traineeship, it is mostly training to get certifications related to the job that the trainee will do full-time after the traineeship is done. After around three to four months, the trainee is working half of the time and having classes the rest of the time, and the training will gradually decrease until the trainee is working full-time in the position, they have decided to continue in. The time-to-productivity is around one year for the trainee to become productive, as stated by the employer below.

After three to four months, they are 50% billable. They are doing things for our customers that are making us money, but only for 50% of their time. So, from that point, we ramp that up, of course, so that they are a hundred percent billable after a year. However, I think in practice, it is just a whole year that they need to get an idea of what we do, exactly, who we are as a company, and what their potential role in that could be" (Participant 4, Employee, Company D)

During the interviews, it became clear that both companies use different strategies to integrate recent graduates into their organizations. Company D is using the traineeship to integrate and help recent graduates into the organization.

"So, the traineeship is indeed really focused on people who just finished studying and are looking for their first job. When I started working at Company D there was not a traineeship at all." (Participant 4, Employer, Company D)

The traineeship has allowed trainees to learn and develop their skills.

"The traineeship helped me to get into the work environment and to see the business life and everything." (Participant 2, Employee, Company D)

Company D also uses traineeship to cover the labor shortage that exists in the market to help the organization fill positions that are needed in the company.

"Shortage of workers in the IT sector is getting pretty bizarre. So, we needed new ways of recruiting people." (Participant 4, Employer, Company D)

After a few interviews, it became clear that company S had a strategy to hire students before they graduated in part-time positions to make the integration process easier for the graduates.

"That is a hundred percent the strategy. We usually focus on students during the summer when employees want to take vacations, and we still need people to work." (Participant 7, Employer, Company S)

It was also stated that hiring students part-time will lower the time-to-productivity for recent graduates.

"We offer them a part-time job, and they can decide how much they want to do themselves. Then when they graduate, they are kind of onboarded already." (Participant 7, Employer, Company S)

With new employees that are not graduates, the organization expects the time-to-productivity to be around six months; however, the onboarding lasts three months.

"Some people learn faster, of course, but we usually say after six months, you usually feel comfortable in our solution and are productive." (Participant 2, Employer, Company S)

"We have created a template for 30, 60, 90 days. We have organized it in a way that we recommended things that should happen within the first 90 days of the new employee's employment." (Participant 5, Employer, Company S)

The strategy put up by the company has been appreciated, and according to recent graduates, it has helped them get onboarded in the company.

"So, I think it is very good because I feel like I had a longer onboarding process. When working part-time, I had time to learn new and different things, and when I started full-time, I was already onboarded. I think it was smoother." – Participant 6, Employee, Company S

"I think having a part-time job at Company S helped me to ease into the job." (Participant 3, Employee, Company S)

6.2 Flexible work Environment

The second part of the results will touch upon the topic of flexible work environment and how this has affected the onboarding of recent graduates. However, a description of how the two companies work is needed to understand how working in a remote or hybrid environment affects onboarding. In Company S the responsibility relies on the individual, mentor, and autonomous teams to decide how often the new employee should come into the office. No work policy directs how often the individual needs to be in the office.

"Not really, just that we do not have any requirements on paper that you have to be in these many days in the office. It is more that you have a gut feeling that I should be there these number of days." (Participant 3, Employee, Company S)

Even though there is no formal policy, Company S has a recommendation set up by the HR department that states that employees should be in the office a few days a week.

"It is up to people themselves. We do not have a work policy stating that you must work twice a week at the office. However, being at the office two or three days a week is highly recommended. So it is not like policy, but it is recommended to do so." (Participant 4, Employer, Company S)

The autonomous teams decide whether they will be in the office through a team chat. This method works according to the participants; however, they preferred working at the office when the employees started working at the company before feeling comfortable in the position. The same strategy was used during the onboarding; however, it was decided between the new employee and the mentor.

"In the beginning, we have a format where you can work flexibly, but I really could not work remotely when I started. Because I felt like I had to ask many questions so, that meant for me that I would probably be in the office four or five times a week. So almost every day in the office. I felt that I could not get anywhere in my work if I were at home. Because I needed to ask my mentor a lot of different stuff day." (Participant 3, Employee, Company S)

A policy for flexible work is formalized in the traineeship for Company D; recent graduates are expected to be in the office two to three times a week. One of these days is dedicated to training entirely, together with other trainees. However, this depends on what track in the business the trainee is on, as some would end up being in the office more and others less. Trainees can decide what they want to focus on, such as becoming a project manager.

"On average, it is two to three times that they need to be in the office every week. Depending, of course, on their schedules which are decided by what track in the company they work for. You know, if that is a Monday or Friday they go to work, they can choose themselves and see what works for them." (Participant 4, Employer, Company D)

Of the two or three days a trainee is in the office, one day is for training, and the other day or two is to do practical work, as stated by Participant 4 below. The practical days depend on the mentor and the track a trainee is on. Practical work is the part where the trainee work for the customer and is not in training.

"There is one week that they always, I think it is usually Wednesdays, they have training and courses, and they need to be in the office for that. They also do the practical work, and for that part, they also need to be at work one or two times a week." (Participant 4, Employer, Company D).

6.3 Hybrid Work Challenges in Onboarding

During the interviews, trainees from Company D stated that in the first months when working from home, they sometimes could feel useless as they did not know what to do.

"When you sit at home, you can feel a bit useless because you do not have actual work to do for the company yet." (Participant 1, Employee, Company D)

"You can feel useless in the beginning because there are days that you do nothing because you do not have actual work yet. They told us there are days that you will not do much. So do not feel obliged to do anything." (Participant 2, Employee, Company D)

One participant said that the managers knew that trainees felt useless, something that they had become aware of it, and the reason for it was because of the hybrid work, which caused some trainees to slip through the cracks. However, they were already discussing a solution for it.

"If you have someone that feels like they have nothing to do, and then they wait two months to say something, then two months are just gone. So that is one for me to ensure that managers, even if trainees are working from home, do what they need to do." (Participant 4, Employer, Company D)

"I think that this would not have happened as easily if they had been required to just be in the office all day long, over all week long." (Participant 4, Employer, Company D)

One manager at company D had noticed a slight decrease in employee satisfaction with the onboarding process since the pandemic and the increase in remote work. The company still experienced high numbers. However, they have seen a slight decrease since the pandemic. According to the manager, the company had discussed the reason for it and concluded that one main reason for the decline in the numbers is that it is harder to turn for help when working remotely.

"We still have a high value on employee satisfaction in the onboarding process. We compare ourselves with a great work environment, not with good. However, it still has been a slight decline, and we could connect it to onboarding because of the pandemic and remote work. During the pandemic, we had to do the whole onboarding digitally. We believe that it had a huge impact; we know that new employees feel less secure about their performance and less secure being direct in their communication. We think that when you are a new employee, you are waiting for other people to tell you what to do, and in a remote context, you need to reach out yourself, which is harder." (Participant 5, Employer, Company S)

Not having strict rules on flexible work environment means that people start to work more from home. This is not good for the onboarding and perhaps not for the performance and well-being of everyone in the company, as seen in the quotes below from company S.

"I can hear that from our delivery managers that they can see a difference in performance." (Participant 1, Employer, Company S)

"You can also get used to the fact that you do not see each other, and you think it is working fine, but it is not. We can see a lower performance in the teams that are just staying home a lot more." (Participant 1, Employer, Company S)

"One delivery manager asked a team to come in two days a week, and the employees then said that they did not want to. Then he forced them to come in. After that, they realized they were doing much better when spending time together." (Participant 1, Employer, Company S)

Recently the CEO of Company D even mentioned this in a meeting with the whole company to encourage more employees to be hybrid and not work entirely remotely.

"Our CEO has gone out in our town hall meeting. To explain why we have this hybrid remote, what studies have shown about hybrid work, and why we will not go fully remote." (Participant 7, Employer, Company D)

Furthermore, although none of the participants said that the socialization process during the onboarding was lacking, they had seen the importance of being in the office to build better relationships with the rest of the employees.

"Most of us worked hybrid, and it did not feel like we saw each other. So, we decided to be more in the office as a team-building activity. We felt more like a team after that, so then we decided that all employees in the team should be in the office two days a week." (Participant 6, Employee, Company S)

Participant 1 in Company S also emphasized that they had seen that during the pandemic, when all the onboarding was online that the time-to-productivity had increased. Therefore, they started emphasizing the importance of being in the office during the onboarding.

"During the pandemic, when new employees were doing the onboarding remotely, it took a lot longer because being around other employees and hearing them talking will help you catch up on things and understand the company. That's why we think it's important that you get together in the office." (Participant 1, Employee, Company S)

One recent graduate at company S stated that from their experience, they think employees feel better being in the office as they had that experience.

"I think many people, like me, in the beginning, think it is going to be cool and exciting when you work from home. However, when you work at home, I think many people feel it is better to be at the office because I have these great colleagues here, and I miss being there." (Participant 6, Employee, Company S)

One trainee in Company D emphasizes that they think it is crucial to be in the office a lot in the beginning, to socialize with other colleagues and get to know employees not part of the traineeship program.

Initially, you needed to be on-site because you get to know your colleagues well. You also get to know other colleagues besides the trainees because during lunch everybody is there so you can quickly get to know new people. In my opinion, in the first three months, it is essential to

come to the office and see your fellow trainees to connect with them and to know them."

(Participant 2, Employee, Company D)

To summarize, the company has enormous similarities as both have seen challenges with too much remote work, leading to slower time-to-productivity for the new employees. They also emphasize that socialization is more straightforward when the person is in the office a few days a week.

6.4 Mentorship Challenges

During the interviews, it became clear that both companies used mentors to integrate and help guide new employees and recent graduates into their new roles. Both organizations have experienced similar challenges with mentorship. The main challenge that both companies experienced was that it could be hard for the mentor to have time to be there for the new employee. The second challenge was that not meeting face to face frequently has led to problems as the mentor, and the new employee/trainee has a more challenging time communicating. The following quotes are from Company D.

The biggest problem is that the person joining usually feels all right with the onboarding, but the mentor does not feel that he or she is doing the best that they can because they feel like they have to do something else. They are helping that person during the day, and then in the evening, they have to do the other tasks." (Participant 4, Employee, Company D)

"I am working together with a project management manager. However, when I am at the office, I can always ask him some questions, and he helps me, but sometimes he is swamped. However, as a trainee, you need more help and more support, and because he is so busy, it is difficult to reach out to him and get answers quickly." (Participant 1, Employee, Company D)

However, Company S had found a solution that some of the teams could implement by putting only some of the responsibility on one mentor and moving it to multiple members of the autonomous team. It is still a challenge for the company to experience. However, it depends on the autonomous team, as some teams had a more accessible team implementing this and how they decided to divide the role of the mentor. Furthermore, some managers in Company D had implemented a similar solution where they delegated the role of a mentor (buddy) and kept being there to support the trainee. However, they did not have full responsibility for the trainee. This solution was something that only some managers in the company had implemented, according to the participant.

"He was not there every day, but I had one mentor on paper, but you could say that I had a couple of mentors because we had three senior members in our team to whom I could ask questions. So it could be that someone else at the office would take his place in mentoring me." (Participant 2, Employee, Company D)

"We have a manager, and then we also have, I think we call it a buddy now, so they can ask all questions without having to ask a manager, which is, well, sometimes you can feel a little bit hesitant to ask your manager certain questions." (Participant 5, Employer, Company D)

Even though Company D struggled with mentors having enough time to help with the trainees, some liked that they also had much responsibility, as stated by the following trainee in Company D:

"The guidance was good for me. Other people might not like it as much, like getting thrown in the deep end. I like it because you get to figure things out for yourself, and also, that is the quickest way to learn for me personally. I like the process I went through the first few months." (Participant 2, Employee, Company D)

One trainee in Company D mentioned that it would be better to spend more time in the office with your mentor than only having contact with the mentor through different chats.

"I think for training. It is crucial to work tight together with somebody and to be more at the office. However, because people are busy with customers, there is little time and place to work face-to-face with each other. It is better to be more in the office with your mentor." (Participant 1, Employee, Company D)

6.5 External Organizational Contextual Factors - IT Sectors

During the interviews, the participants were asked how being in the IT sector affected the structure of the onboarding process. Two participants mentioned that the pace of the industry and how it changes quickly plays a role in how the onboarding is structured, and it needs to change often to keep up with the current trends in the market.

"It is even harder in our industry because our sector's speed and pace are very high. You need to be explorative. You need to be curious; you need to discover; you need to test and try new things. All these kinds of characters we need within our colleagues are key for our success moving forward." (Participant 5, Employer, Company S)

"Flexible because the sector changes all the time. For example, now with AI and its impact on the sector and how this affects the onboarding of our new employees." (Participant 5, Employer, Company S)

The ongoing and rapid changes in the industry mean that the onboarding needs to be adaptive and flexible, which has led to hybrid onboarding and only a few onboarding policies in company S. They want flexible onboarding to adapt to the market, and the teams and individuals have significant autonomy.

Also mentioned is that because of the nature of the work in the IT sector, employees can work from home more, and therefore the onboarding also happens to be more remote compared to other sectors where this is harder.

"Maybe we can work home at home more often because we are in it, I guess because most of our work is well on the computer anyway, but otherwise, I do not think that the sector itself has that much of an influence on how we shaped this." (Participant 4, Employer, Company D)

6.6 External Organizational Contextual Factors - University-to-Work Transition

The participants had different experiences transitioning from university to work life; overall, the recent graduates interviewed were able to adapt to work life even though they did experience specific skills gaps that they had to learn during the onboarding and traineeship. One reason for the recent graduates not struggling was the different strategies where the recent graduate either started working part-time in company S or the traineeship itself as it helped them fill the skills gap they had when they graduated. The companies themselves said

that the strategies are used to fill in the skills gap so the recent graduate will have as small of a skills gap as possible when they start working full-time for the company.

"I think for me, and I did not have that many struggles because I chose to start working part-time." (Participant 4, Employee, Company S)

Another reason for the participants not struggling is that a few of them had previously worked before they started working for the organization, so they had previous experience, which helped them adapt.

"I have been working at other places before. So, it was effortless to get into the habits of work." (Participant 6, Employee, Company S)

However, although the participants did not struggle to adapt to work-life, they still mentioned that they missed skills they had to learn during the first months in the organization. In Company S, the participants mentioned a need for more technical skills when starting, as the company's product is specific to the company and challenging to learn at university.

"I felt like there were a lot of words and expressions. I did not know exactly what it was.

Someone had to show me, then I realized that I knew how to implement the stuff, but I did not know everything when someone talked to me about it. So it was a lot of fancy words I did not know." (Participant 8, Employee, Company S)

"I think it was quite a big change. I know how to code from school, but it was completely different when I came to Company S. Because our library has codes and new components or

jobs that I have yet to hear of in school. It is very specific things I have not heard of or done before." (Participant 4, Employee, Company S)

In company D the trainees mentioned how they had gotten help developing their soft skills during the training provided by the organization. The soft skills training was done in person. According to the participants, they needed this as they found it to be something they needed more from their studies.

"Formal talking was something I missed. When you are studying, you are with people your same age. So, you use informal language, and when you are in a company and talk with the customer, you have to adjust how you speak." (Participant 2, Employee, Company D)

"I think the skills I learned at university helped me be "book smart" and write papers. The help I need from the company is to develop my soft skills." (Participant 1, Employee, Company D)

One trainee from Company D stated that it was helpful that the company provided communication training.

"Yeah, because university is different from work because you have different responsibilities. So, the training for better communication skills was good, and they facilitated that." (Participant 1, Employee, Company D)

6.7 Internal Organizational Contextual Factors - Organizational

Culture/Structure

In both companies, there was a big emphasis on organizational culture when discussing the socialization process. If it was hard or easy for a new employee to feel integrated into the organization, the participants mentioned the flat hierarchy being a vital part of the culture and helping new employees socialize. Company D has a hierarchy; however, during the interviews, it became clear that even though there is a hierarchy, managers and others higher up are still willing to help new employees. One of the participants showed this when they used the Dutch word *kennismakingsgesprek*, which means *introductory meeting* in English. They explained that the first month is filled with these meetings with new people in the organization.

"On paper, we do have a hierarchy, but in practice, it is pretty flat. You have employees, then their managers, then a division manager, and then the CEO. So, on paper, you would say, there is a hierarchy, but then the culture is not as people that work here are open to help people" (Participant 1, Employee, Company D)

"For every new employee, their first month is just planned, to the brim, filled in with, meeting new people. So called kennismakingsgesprek" (Participant 4, Employer, Company D)

The norm that "doors are always open" is emphasized during the trainees' training.

"You can see the culture during the training. It is a space where you can make mistakes; they also encourage you to speak up and help each other during the training, which is typical for the organization's culture." (Participant 2, Employee, Company D)

In company S, multiple participants mentioned the company's flat structure of the company and how it influenced the everyday work in the company, and how it helped new employees get to know other employees in the organization.

"I did not feel I had any problem integrating socially. I would say the people I met when I started on my team are good friends to me today. I think we got along very well. I think one reason is that we have a very flat organization. We are autonomous in the team, so nobody is the other's boss. We are all part of the discussion, and no one is trying to delegate or have some authority. I think that helps that everyone is on the same level." (Participant 3, Employee, Company S)

The previous quote mentioned that the socialization process was made easier because of the flat culture, as the new employee can turn to multiple employees to ask for help in a sort of knowledge transfer.

"I think the flat structure makes the daily work easier because you can go to anyone and ask them questions, and they are happy to talk to you. So, I think that is very good." (Participant 3, Employee, Company S)

A trainee at company D stated a similar thing and that it helped him to feel part of the organization.

"I can just walk to my manager; there is not much hierarchy. That is nice because many people are open to helping you. If I would walk up to my manager now, who is significantly higher up in the hierarchy, it would be fine. I could walk into his office, chat, and go by my day. I think that it is very positive that people do not feel better than others because they have a higher pay or higher function at the company." (Participant 1, Employee, Company D).

5. Discussion

To conclude this paper, a section where the key findings are discussed and what the results mean is presented below. Also, to see if the results align with the study's expectations. The limitations of the study will also be brought up and recommendations for further research. Then the practical implications for HR practitioners, employees, and relevant managers will be discussed, and lastly, a short conclusion of the most vital points from the research will be presented.

The outcomes of this research have shown what challenges IT employers and employees experience when getting onboarded in a flexible work environment such as hybrid work, either through a traineeship or a part-time job that moves to a full-time job. The research focused on the challenges employers and employees face during the onboarding process of recent graduates in a flexible work environment. The study examined two companies, Company D and Company S, through semi-structured interviews to understand their onboarding and traineeship strategies for integrating recent graduates. Also, to understand the structures, experienced challenges, integration strategies, organizational factors, and the impact of the institutional context.

5.1 The Onboarding and Traineeship Structures

The onboarding and traineeship structures in the two companies differ from each other. However, they do have many similarities. The organizations still cover the aspects of onboarding even though the different strategies, the four C's, compliance, clarification, culture, and connection, are covered during the onboarding and traineeship. Even though Company S had minor issues with connection in a few of their teams, which will be described later in this chapter, both covered all the aspects of onboarding and understood how vital a well-structured onboarding is (Baur, 2010). Furthermore, the companies also used Practice-

based learning, Class-based learning, and Mentoring in their onboarding, all of the broad training categories defined in the literature review (Sharma & Stol, 2020). Also interesting is the explicit use of the strategies mentioned in the results of using the traineeship in Company D and a part-time job in Company S to help integrate recent graduates into the organizations. The strategy is similar, and Company S's strategy of hiring students in their last semester to work part-time before moving over to a full-time job in the organization was evident during the interviews. The differences in the strategies could not be concluded to play a role in the effectiveness or how successful the onboarding and traineeship were for recent graduates in the respective organizations.

5.2 Onboarding in a Hybrid Setting

The key finding in the study is the significance of being physically present during onboarding to facilitate socialization, and knowledge transfer, create a better understanding of the company culture for the new employee, and, in turn, accelerate time-to-productivity. The companies are both working in a hybrid work environment; in Company S, employees are free to decide how often they come to the office, although there is a recommendation to be present a few days a week. The recent graduates talk to their mentor and other team members to decide when to be in the office, which differs from each autonomous team. Company D, trainees are expected to be in the office two to three days a week, but this also depends on what the trainee and their mentor/manager decide on and differ if it is at the start of the traineeship and the end when there is less training and courses. The respondents in the two organizations have experienced that remote onboarding leads to longer time-to-productivity and emphasize the benefits of in-office interactions to speed up socialization and employee satisfaction and performance. This aligns with the expectations and the social presence theory, as it states that face-to-face interactions are more effective thanks to the broader capacity to convey social presence (Zelkowitz, 2010). Though both companies still use team

chats to communicate with each other and build connections between team members, this is used more as a tool to communicate between team members. However, they still emphasize being in the office to get to know the other team members and employees. A few participants in Company S stated that they had seen a decline in performance for the teams that had done a lot of the onboarding and work remotely. In the literature review under group socialization, the research clearly states that successful socialization can lead to higher performance levels and higher job satisfaction (Bauer et al., 2007).

Furthermore, new research regarding onboarding in a virtual setting shows that employees can miss out on developing social connections with team members (Scott et al., 2021).

According to Baur's four C's (2010), connection is vital, and with the research stated above, the teams in Company S that did most of their onboarding and work remotely might have had challenges with the connection between the team members. She clearly states in the theory that all the four C's need to be there for successful onboarding. What has been explained could explain the decline in performance and onboarding satisfaction that Company S experienced. However, both companies encourage a hybrid rather than a fully remote work setup. Important to reflect on is that the research does not suggest doing onboarding fully on-site as it is hard to conclude with the data collected. It does, however, show that it is essential to be in the office most of the time during the onboarding. The option to work hybrid has been shown to have many positive effects, such as better work-life balance (White, 2023). Therefore, a logical conclusion is that hybrid onboarding might be the best option. However, this needs to be further researched and cannot be concluded in this study.

5.3 Mentorship Challenges

Another challenge experienced by the two companies was the mentorship; the main challenge then was that it could be hard for the mentor to have time to guide and help the new employee, and the second challenge was that not meeting face-to-face frequently led to communication issues as it felt harder for the new employee to turn to the mentor as they might be "swamped" and having to wait for a response. This can be linked to having more remote work, leading to less group socialization and less knowledge being transferred between the individual (Jones, 2012), in turn having to ask other team members for help. Both companies had devised solutions by delegating the responsibility between multiple employees. However, the first challenge, where new employees feel like the mentor needs more time to guide them, could also exist if the onboarding experience was fully on-location. The mentorship's effectiveness is hampered by insufficient opportunities: mentors do not get time for this or cannot delegate tasks temporarily. The challenge does not need to be there specifically because of the hybrid work environment. However, it could have been exaggerated because of the hybrid work. This could affect the performance of the employee using the AMO model (Ability, Motivation, and Opportunity) as this can hamper the opportunity for the employee to execute effectively and, in turn, have lower performance (Juarez-Tarraga et al., 2019).

5.4 External Organizational Contextual Factor – IT Sector and University-to-Work Transition

Also, an interesting finding is that the participant emphasized that the onboarding process in the IT sector might need to be more flexible than in other sectors, as the environment is changing faster than in other sectors, which means that the process needs more flexibility to adapt to the changes happening in the sector. The literature states that the IT sector is characterized by its dynamic nature and rapid technological advancements. Therefore, there

would, in turn, be logical that organizations need to have flexible policies to be able to fast adapt to changes happening (Gonzalez & Gonzalez, 2023). This could be interesting to research further and investigate differences in onboarding between different sectors.

As described in the results, the participants were able to transition from university to work quickly. However, they did experience some minor skills gaps in soft skills, such as communication skills which the companies provided training to cover the gap. The expectations discussed the gap, as the previous research has shown a skills gap in soft skills among IT graduates (Aasheim et al., 2009; Downey et al., 2008). However, as only two of the six recent graduates had experienced this, it is hard to conclude that they needed more soft skills when starting a new job. However, suppose the recent graduates lack soft skills looking at the AMO model again. In that case, it showcases that their ability might be lower and, in turn, affect the execution of their job tasks and lower their performance (Juarez-Tarraga et al., 2019). However, it was only in Company D that the recent graduate mentioned this, and they also emphasized that the company had provided training to help them cover the gap.

A hybrid work environment can initially lead trainees to feel useless, and the lack of strict rules can impact performance and employee satisfaction. However, both companies recognize the importance of in-person interactions for building relationships, team cohesion, and accelerated time-to-productivity.

Furthermore, some respondents in Company D felt useless during the first months as they did not always have assignments, specifically while working from home. They had questions regarding their value in the company and if their job was meaningful. In the literature, recent graduates are looking for work that they perceive as meaningful, so it is vital for companies to cover to retain graduates. Managers were aware of this, and something they were working on to improve for this year's trainees. However, it was reinforced by hybrid working, as one

participant stated that it is easier for trainees to slip through the “cracks” when mainly working from home. Hybrid working could therefore strengthen specific pre-existing onboarding challenges.

5.6 Internal Organizational Contextual Factor – Organizational Culture

In the results, it is clearly stated that the organizational culture was an enabler of hybrid onboarding because of the flat structures and hierarchies in the two companies, as the flat structures and hierarchies were experienced as an informal and open-door culture that helped recent graduates to reach out, connect and ask for help to everyone. In the end, this improves the socialization process and lower time-to-productivity. Even though the structure of the two companies differed, as Company D had more of a hierarchical structure and Company S had a flatter structure, it was clear that they both had informal and an open-door culture, which was highly appreciated among the new employees as it helped them feel less intimidated asking for help from employees that are higher up in the hierarchy. In the literature, Baur (2010) emphasizes that culture is a vital part of onboarding which is seen in both the companies studied here. Furthermore, the definition of *organizational culture* in this study is the shared values, beliefs, behaviors, and attitudes in an organization that shapes how employees interact and work together. Both companies' informal and open-door cultures are perfect examples of organizational culture (Bellot, 2011).

5.7 Limitations

Limitations of the study are that it is hard to generalize the whole IT sector as only two companies were studied. This is because it was a limited sample size as it may not adequately represent the broader population or industry. The findings may be specific to these two companies and may not reflect the experiences or perspectives of other companies.

Furthermore, different companies may have unique characteristics, structures, and practices that can influence onboarding. Therefore, more than studying only two companies are needed

to broadly draw any conclusion for the IT sector as it does not capture the full range of diversity in the broader population. Lastly, as discussed in the method, qualitative research has its advantages; however, it is typically focused on exploring in-depth insights and understanding the complexity of phenomena, which is impossible using quantitative research. However, it means that it does not aim for statistical generalizability, which requires a larger sample size to make statistically significant claims about the broader population. As only 13 interviews were made, eight in Company S and five in Company D, it is hard to generalize the findings.

Also, a more equal distribution of the interviews would have been preferred. However, the researcher tried everything possible to create an equal distribution through consecutive emails. Because of holidays and other obligations, this was not possible; creating an equal distribution between the two companies was impossible. Having an unequal distribution between the companies does create limitations. First, it can create an incomplete representation of the target group, which in this case were employers and employees. This can lead to a skewed understanding of the phenomenon studied as participants' perspectives may be over- or underrepresented. Though, as described in the method, saturation was experienced and the study, the results are most likely not affected by an incomplete representation. Another limitation because of the unequal distribution of interviews is the overemphasizing or underemphasizing of one company; in this case, there might have been an underemphasizing of recent graduates in Company D as only two interviews were done with that target group.

Lastly, online interviewing might also have played a role in the results as, according to the social presence theory, social cues will be lost during videoconferences (Zelkowitz, 2010). Research has also shown reduced spontaneity is a risk, as the physical separation could create a more rigid dynamic (Oates et al., 2022). Lastly, which goes together with the social

presence theory, is that remote interviews may lack the personal touch and can be harder to create a relaxed and open atmosphere needed, potentially affecting the depth and quality of responses.

5.8 Further Research

There are many options for further research; the most obvious one that has been discussed above, however, needs to be proven to make a concrete statement is to test whether challenges with onboarding hamper the effectiveness of onboarding in terms of time-to-productivity or other aspects such as turnover rate, and commitment. This could be done by a bigger sample size or a quantitative study to build on this research to create statistics and find correlations between the challenges and the aspects of onboarding.

Further research could also compare onboarding experiences in different countries. The study conducted interviews in both a Dutch and a Swedish company. However, no distinct differences were found as a quantitative research design is needed to ensure statistical power and generalizability of the findings to make it possible to compare countries. Further research could explore onboarding experiences in different countries to identify cultural and contextual factors that influence the effectiveness of onboarding strategies in flexible work environments, such as Hofstede's cross-cultural dimensions, which is a popular approach to understanding cultural differences and similarities between nations and is used in HRM to explain differences in policies and other HRM-related questions (Vaiman & Brewster, 2014). This would help HR practitioners tailor onboarding practices to specific cultural contexts and improve the cross-cultural integration of recent graduates.

Other contextual factors that are not part of Hofstede's cross-cultural dimensions might have played a role in the results and would be something that could be further researched. Other factors that could have played a role during the onboarding are internal factors such as

leadership style and organizational size, which are not studied now, and external factors such as economic conditions, legal regulations, and socio-cultural trends. Doing further research into these will help clarify what factors play a role in the onboarding process of new employees and recent graduates. This could be done by a longitudinal study to further build on the cross-sectional study in this research as that collects data from the same sample over an extended period and is more likely to suggest a cause-and-effect relationship (Scribbr, 2021).

Further research could also dig deeper into comparing onboarding strategies across industries. The study specifically examined onboarding strategies in the IT sector. Further research could expand the scope to include other industries and compare what is specifically needed for each sector in an effective onboarding process.

Lastly, as mentioned in the discussion, is to research if hybrid onboarding is the best option compared to full on-site onboarding. Hybrid work has been proven to increase job satisfaction because of flexibility (White, 2023). Therefore, hybrid onboarding might improve outcomes.

5.9 Practical Implications

The practical implication for employers is many. First, even though there is a rise in remote and hybrid work, employees still need in-office time to socialize and build stronger connections. Especially for new employees getting socialized and having a low time-to-productivity in the organization, HR practitioners should therefore design the onboarding process in their organization to take place primarily on-site and use remote onboarding when needed and only partially rely on it. Also observed is a strategy where recent graduates slowly transition from university to work-life through a part-time job or a traineeship is highly appreciated and helps the graduates adapt. Using a strategy, as mentioned before, is something other HR practitioners could use in their organization to make it a smoother transition for recent graduates. For employers, it is also crucial that mentors have the time for their responsibility to help new employees and guide them into their new roles. Doing this will help lower the time-to-productivity. Furthermore, having a flexible onboarding policy might help to adapt to the fast-changing environment the IT sector provides; therefore, HR practitioners should adapt their policies to their respective sectors. Also, keeping an informal and open-door culture is preferable as the findings show that it can lead to a faster time for recent graduates to integrate.

For recent graduates, the practical implications are that it might be an excellent decision to take a part-time job or a traineeship after university to help bridge the skills gap that exists after university. Also, if the company has a flexible work environment, being in the office in the beginning, a lot to build social connections with co-workers to faster integration into the organization.

Other practical implications are that universities and higher education doing online courses must focus or increase the courses on soft skills to bridge the existing skills gap. This could

be something that universities that are having in-class courses as well should focus on as the skills gap seems to have existed before the move to online classes.

5.10 Conclusion

This research paper discusses the essential findings and implications of a study where the challenges IT employers and employees face during the onboarding process in a hybrid work environment were studied.

The research found that both companies had different onboarding and traineeship structures. However, both covered the essential onboarding aspects, including Baur's four C's compliance, clarification, culture, and connection. They also used practice-based learning, class-based learning, and mentoring to transfer knowledge to the new employees. Both companies also used a specific strategy to integrate recent graduates into the organization. Company D used the traineeship, and Company S hired students part-time before they graduated to help them ease into the organization before they started working full-time.

The key finding was the significance of being physically present during onboarding to facilitate socialization, knowledge transfer, and a better understanding of company culture, which lowered the time-to-productivity for the recent graduates. The study highlighted the importance of in-office interactions for building relationships and team cohesion. While both companies used team chats for communication, being in the office was crucial for establishing social connections between the team members in the company. Remote onboarding led to longer time-to-productivity for recent graduates and created a challenge in building social connections between team members.

Mentorship was also identified as being another challenge for employers and employees, as mentors often had limited time to take care of their responsibility, and communication issues arose between mentors and new employees when they worked remotely. The study also

emphasized the need for effective mentorship to transfer relevant knowledge for successful onboarding. The research also discussed the impact of external and internal organizational contextual factors. The IT sector's fast-changing environment could require a more flexible onboarding process to adapt to new changes quickly. In limitations, the study acknowledges that the findings may not be generalized to the IT sector due to the limited sample size and being a qualitative study. Furthermore, the internal organizational contextual factor of organizational culture, characterized by flat structures and informal open-door policies in the two companies, was identified to lower the time-to-productivity and create a more successful onboarding in both companies.

The study also recognized the limitations of the research. The limitations include the need for a larger sample size, lack of diversity as only two companies were discussed, and the qualitative nature when only 13 interviews were conducted. It is hard to generalize the findings to a larger population or make statistically significant claims. Other limitations were the unequal distribution of interviews and the impact of online interviewing.

In one of the last sections of the study, further research is discussed, such as investigating the effectiveness of onboarding in terms of time-to-productivity and other outcomes, comparing onboarding experiences in different countries to identify cultural factors, and exploring additional contextual factors that may influence the onboarding process. The research findings provide insights for HR practitioners, employees, and managers involved in onboarding recent graduates in a hybrid work environment, highlighting the importance of in-person interactions, effective mentorship, and organizational culture in facilitating a successful onboarding experience.

References

- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of management review*, 14(1), 20-39.
- Aasheim, C., Williams, S.R., & Butler, E.S. (2009). Knowledge and Skill Requirements for it Graduates. *Journal of Computer Information Systems*, 49, 48 - 53.
- Altindag, D. T., Filiz, E., & Tekin, E. (2021). *Is Online Education Working?* <https://doi.org/10.3386/w29113>
- Effectiveness*, 41–70. <https://doi.org/10.4018/978-1-7998-6669-5.ch003>
- Bauer, T. N. (2010). Maximizing success. *SHRM Foundation's Effective Practice Guidelines Series*.
- Bauer, T. N., & Erdogan, B. (2011). Organizational socialization: The effective onboarding of new employees. *APA Handbook of Industrial and Organizational Psychology, Vol 3: Maintaining, Expanding, and Contracting the Organization.*, 3(1), 51–64. <https://doi.org/10.1037/12171-002>
- Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: a meta-analytic review of antecedents, outcomes, and methods. *Journal of applied psychology*, 92(3), 707.
- Bapna, R., Langer, N., Mehra, A., Gopal, R., & Gupta, A. (2013). Human Capital Investments and Employee Performance: An Analysis of IT Services Industry. *Management Science*, 59(3), 641–658.
- Bellot, J. (2011). Defining and Assessing Organizational Culture. *Nursing Forum*, 46(1), 29–37. <https://doi.org/10.1111/j.1744-6198.2010.00207.x>
- Bessen, J. (2014). Employers aren't just whining—the “skills gap” is real. *Harvard Business Review*, 25. <https://hbr.org/2014/08/employers-arent-just-whining-the-skills-gap-isreal>
- Berger, T., & Frey, C. B. (2015). Bridging the skills gap. *Technology, globalisation and the*

future of work in Europe: Essays on employment in a digitised economy, 75-79.

Bhandari, P. (2023). Triangulation in Research | Guide, Types, Examples. *Scribbr*.

<https://www.scribbr.com/methodology/triangulation/>

Booker, D., Hawkins, E. M., Vandervelde, S. D., & Wu, Y.-J. (2022). Onboarding during the COVID-19 Pandemic: Insights from New Hires Entering the Audit Profession. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4139808>

Cameron, K. S., & Quinn, R. E. (2011). Diagnosing and changing organizational culture: Based on the competing values framework. John Wiley & Sons.

Carlos, A. R., & Muralles, D. C. (2021). Onboarding in the age of COVID-19. *IFLA Journal*, 48(1), 034003522110354. <https://doi.org/10.1177/03400352211035413>

Chen, T., Shen, C., & Gosling, M. (2018). Does employability increase with internship satisfaction? Enhanced employability and internship satisfaction in a hospitality program. *Journal of Hospitality Leisure Sport & Tourism Education*, 22, 88–99. <https://doi.org/10.1016/j.jhlste.2018.04.001>

Chillakuri, B. (2020). Understanding Generation Z expectations for effective onboarding. *Journal of Organizational Change Management*, 33(7), 1277–1296. <https://doi.org/10.1108/jocm-02-2020-0058>

Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. *Sustainability*, 12(24), 10367. <https://doi.org/10.3390/su122410367>

Dai, G., & De Meuse, K. P. (2007). A review of onboarding literature. *Lominger Limited, Inc., a subsidiary of Korn/Ferry International*, 1-9.

de Boer, H. (2020). COVID-19 in Dutch higher education. *Studies in Higher Education*, 1–11. <https://doi.org/10.1080/03075079.2020.1859684>

- Dice. *Remote Work - Tech Sentiment Report*. (2022). Retrieved March 17, 2023, from <https://www.dice.com/technologists/ebooks/tech-sentiment-report/remote-work.html#Remote-and-Flexible-Work>.
- Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: the new normal and emerging technologies. *International Journal of Educational Technology in Higher Education*, 15(1). <https://doi.org/10.1186/s41239-017-0087-5>
- E. McMurtrey, M., P. Downey, J., M. Zeltmann, S., & H. Friedman, W. (2008). Critical Skill Sets of Entry-Level IT Professionals: An Empirical Examination of Perceptions from Field Personnel. *Journal of Information Technology Education: Research*, 7, 101–120. <https://doi.org/10.28945/181>
- Frankenfield, J. (2022). Technology Sector: Definition, 4 Major Sectors, Investing in Tech. *Investopedia*. https://www.investopedia.com/terms/t/technology_sector.asp
- Frederiksen, A., & Kato, T. (2017). Human Capital and Career Success: Evidence from Linked Employer-Employee Data. *The Economic Journal*, 128(613), 1952–1982. <https://doi.org/10.1111/eoj.12504>
- Gallup. (2017) State of the American Workplace. *Gallup*, 2017. Last accessed 12/21/21. <https://www.gallup.com/workplace/238085/state-american-workplace-report-2017.aspx>
- Ganzel, R. (1998). Putting out the welcome mat. *TRAINING-NEW YORK THEN MINNEAPOLIS-*, 35, 54-63.
- Gonzalez, C., & Gonzalez, C. (2023). The Ever-Changing IT Industry. *OnPage*. <https://www.onpage.com/the-ever-changing-it-industry/>

- Grenny, J. (2021, August 27). *A Study of 1,100 Employees Found That Remote Workers Feel Shunned and Left Out*. Harvard Business Review. <https://hbr.org/2017/11/a-study-of-1100-employees-found-that-remote-workers-feel-shunned-and-left-out>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18(1), 59-82.
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study.
- Hughes, H., & Davis, M. (2021). *Starting your career during a pandemic: The experience of remote and hybrid working*. University of Leeds. https://business.leeds.ac.uk/downloads/download/247/starting_your_career_during_a_pandemic_-_report
- Humphries, B., & Clark, D. (2021). An examination of student preference for traditional didactic or chunking teaching strategies in an online learning environment. *Research in Learning Technology*, p. 29. <https://doi.org/10.25304/rlt.v29.2405>
- Inc, G. (2022, August 31). *Returning to the Office: The Current, Preferred and Future State of Remote Work*. Gallup.com. <https://www.gallup.com/workplace/397751/returning-office-current-preferred-future-state-remote-work.aspx>
- International Labour Organization. (2020). Telework: Online training series: International and EU Labour Standards: Background paper. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---srobudapest/documents/genericdocument/wcms_753334.pdf
- Jeske, D., & Linehan, C. (2020). Mentoring and skill development in e-Internships. *Journal of Work-applied Management*, 12(2), 245–258. <https://doi.org/10.1108/jwam-09-2019-0028>
- Jones, G. R. (2012). *Organizational Theory, Design, and Change*. Pearson Education.

- Juarez-Tarraga, A., Santandreu-Mascarell, C., & Marin-Garcia, J. A. (2019). What are the main concerns of human resource managers in organizations? *Intangible Capital*, 15(1), 72. <https://doi.org/10.3926/ic.1342>
- Jung, H. S., & Silva, R. (2021). Remote Work in the Time of COVID-19: Key Learnings and Implications.
- Kamysbayeva, A., Koryakov, A., Garnova, N., Glushkov, S., & Klimenkova, S. (2021). E-learning challenge studying the COVID-19 pandemic. *International Journal of Educational Management*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/ijem-06-2021-0257>
- Krasman, M. (2015). Three Must-Have Onboarding Elements for New and Relocated Employees. *Employment Relations Today*, 9-14.
- Kvist, M., & Dalstål Gershagen, M. (2021). Onboarding during Covid-19: Effects on newly graduated engineers in Sweden.
- Kompaso, S. M., & Sridevi, M. S. (2010). Employee Engagement: The Key to Improving Performance. *International Journal of Business and Management*, 5(12), 89–96. <https://doi.org/10.5539/ijbm.v5n12p89>
- Kossek, E. E., Gettings, P., & Misra, K. (2021, September 28). *The Future of Flexibility at Work*. Harvard Business Review. <https://hbr.org/2021/09/the-future-of-flexibility-at-work>
- Levine, B. L., & Moreland, R. L. (1994). Group Socialization: Theory and Research. *European Review of Social Psychology*, 5(1), 305–336. <https://doi.org/10.1080/14792779543000093>
- Lieberman, A., & Schroeder, J. (2020). Two social lives: How differences between online and offline interaction influence social outcomes. *Current Opinion in Psychology*, 31, 16–21. <https://doi.org/10.1016/j.copsyc.2019.06.022>

- LinkedIn (2022) *The Jobs with the Highest Turnover Rates, According to LinkedIn Data*.
<https://www.linkedin.com/business/talent/blog/talent-analytics/types-of-jobs-with-most-turnover>
- Ludvigsson, J. F. (2022). How Sweden approached the COVID -19 pandemic: summary and commentary on the national commission inquiry. *Acta Paediatrica*.
<https://doi.org/10.1111/apa.16535>
- ManpowerGroup. (2022). *What Workers Want 2019 Talent Shortage Study*.
Go.manpowergroup.com. <https://go.manpowergroup.com/talent-shortage>
- Markos, S., & Sridevi, M. S. (2010). Employee engagement: The key to improving performance. *International journal of business and management*, 5(12), 89.
- Masalimova, A. R., Khvatova, M. A., Chikileva, L. S., Zvyagintseva, E. P., Stepanova, V. V., & Melnik, M. V. (2022). Distance Learning in Higher Education During Covid-19. *Frontiers in Education*, 7. <https://doi.org/10.3389/feduc.2022.822958>
- McDonald, M., & Wilson-Mah, R. (2022) The Role of Mentorship in Internships. *Papers on Postsecondary Learning and Teaching*. <https://doi.org/10.11575/pplt.v5i.73268>
- McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2009). Flexible Work Arrangements, Job Satisfaction, and Turnover Intentions: The Mediating Role of Work-to-Family Enrichment. *The Journal of Psychology*, 144(1), 61–81.
<https://doi.org/10.1080/00223980903356073>
- Mearian, L. (2023, January 10). *IT leads industries in remote jobs*. Computerworld.
<https://www.computerworld.com/article/3685232/it-leads-industries-in-remote-jobs.html>
- Middleton, F. (2023). The 4 Types of Reliability in Research | Definitions & Examples. *Scribbr*. <https://www.scribbr.com/methodology/types-of-reliability/>

- Moreland, R. L., & Levine, J. M. (1982). Socialization in small groups: Temporal changes in individual-group relations. In *Advances in experimental social psychology* (Vol. 15, pp. 137-192). Academic Press.
- Morgan, D. L., & Spanish, M. T. (1984). Focus groups: A new tool for qualitative research. *Qualitative sociology*, 7(3), 253-270.
- Mthree (2021). The hidden costs of onboarding graduate talent [Review of *The hidden costs of onboarding graduate talent*]. In Wiley. Wiley Edge.
<https://www.wiley.com/edge/cost-of-onboarding-graduate-talent-uk-report/>
- Oates, M., Crichton, K., Cranor, L. F., Budwig, S., Weston, E., Bernagozzi, B. M., & Pagaduan, J. C. (2022). Audio, video, chat, email, or survey: How much does online interview mode matter? *PLOS ONE*, 17(2), e0263876.
<https://doi.org/10.1371/journal.pone.0263876>
- OECD (2021), "The Netherlands is experiencing a shortage of ICT graduates: Share of all tertiary graduates by field, 2018 or latest year", in *OECD Economic Surveys: Netherlands 2021*: , OECD Publishing, Paris, <https://doi.org/10.1787/fa0d1bc3-en>.
- Pavlina, K. (2020). *Assessing best practices for the virtual onboarding of new hires in the technology industry*. Pepperdine University.
- Plusnet (2019, April 30) *Remote workers index: the best countries for digital nomads*.
<https://community.plus.net/t5/Plusnet-Blogs/Remote-workers-index-the-bestcountries-for-digital-nomads/ba-p/1635253>
- Powell, W. W., & DiMaggio, P. J. (Eds.). (2012). *The new institutionalism in organizational analysis*. University of Chicago press.
- Protopsaltis, S., & Baum, S. (2019). Does online education live up to its promise? A look at the evidence and implications for federal policy. *Center for Educational Policy Evaluation*, 1-50.

- Rahman, S. (2017). The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language “Testing and Assessment” Research: a Literature Review. *Journal of Education and Learning*, 6(1), 102–112.
- R. Maurer, ‘Onboarding Key to Retaining, Engaging Talent’, *Society for Human Resources Management*, April 16, 2015. Last accessed 12/21/21.
<https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/onboarding-key-retaining-engaging-talent.aspx>
- Rodeghero, P., Zimmermann, T., Houck, B., & Ford, D. (2021, May). Please turn your cameras on: Remote onboarding of software developers during a pandemic. In *2021 IEEE/ACM 43rd International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP)* (pp. 41–50). IEEE.
- Rusu, G., Avasilcăi, S., & Huțu, C.-A. (2016). Organizational Context Factors Influencing Employee Performance Appraisal: A Research Framework. *Procedia - Social and Behavioral Sciences*, 221(1), 57–65. <https://doi.org/10.1016/j.sbspro.2016.05.090>
- Saks, A. M., & Gruman, J. A. (2012). Getting newcomers on board: A review of socialization practices and introduction to socialization resources theory. *The Oxford handbook of organizational socialization*, 27-55.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
- Schnoes, A. M., Caliendo, A. E., Morand, J. N., Dillinger, T. L., Naffziger-Hirsch, M. E., Moses, B., Gibeling, J. C., Yamamoto, K. R., Lindstaedt, B., McGee, R., & O’Brien, T. J. (2018). Internship Experiences Contribute to Confident Career Decision Making for Doctoral Students in the Life Sciences. *CBE- Life Sciences Education*, 17(1), ar16. <https://doi.org/10.1187/cbe.17-08-0164>
- Scribbr. (2021, March 16). *What is the difference between longitudinal and cross-sectional studies?* <https://www.scribbr.com/frequently-asked-questions/longitudinal-study-vs->

cross-sectional-

study/#:~:text=Longitudinal%20studies%20and%20cross%20sectional,an%20extend ed%20period%20of%20time.

Scott, C. E., Dieguez, T. A., Deepak, P. G. S. W. J. L., Gu, S., & Wildman, J. L. (2021).

Onboarding during COVID-19. *Organizational Dynamics*, 51(2), 100828.

<https://doi.org/10.1016/j.orgdyn.2021.100828>

Scott, W. R. (2008). *Institutions and organizations: Ideas and interests*. Sage.

Shahzad, F., Luqman, R. A., Khan, A. R., & Shabbir, L. (2012). Impact of organizational culture on organizational performance: An overview. *Interdisciplinary journal of contemporary research in business*.

Sharma, G. G., & Stol, K.-J. (2020). Exploring onboarding success, organizational fit, and turnover intention of software professionals. *Journal of Systems and Software*, 159,

110442. <https://doi.org/10.1016/j.jss.2019.110442>

SHRM. (2021, June 3). *Understanding Employee Onboarding*. SHRM; SHRM.

[https://www.shrm.org/resourcesandtools/tools-and-](https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/understanding-employee-onboarding.aspx)

[samples/toolkits/pages/understanding-employee-onboarding.aspx](https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/understanding-employee-onboarding.aspx)

Snell, A. (2006). Researching onboarding best practice: Using research to connect

onboarding processes with employee satisfaction. *Strategic HR Review*, 5(6), 32–35.

<https://doi.org/10.1108/14754390680000925>

Tsai, Y. (2011). Relationship between Organizational Culture, Leadership Behavior and Job

Satisfaction. *BMC Health Services Research*, 11(1). [https://doi.org/10.1186/1472-](https://doi.org/10.1186/1472-6963-11-98)

[6963-11-98](https://doi.org/10.1186/1472-6963-11-98)

Toscano, F., & Zappalà, S. (2020). Social Isolation and Stress as Predictors of Productivity

Perception and Remote Work Satisfaction during the COVID-19 Pandemic: The Role

- of Concern about the Virus in a Moderated Double Mediation. *Sustainability*, 12(23), 9804. <https://doi.org/10.3390/su12239804>
- U.S. Department of State. (2023). *Recent Graduates Program*. Careers. Retrieved March 24, 2023, from <https://careers.state.gov/interns-fellows/pathways-programs/recent-graduates-program/>.
- Vaiman, V., & Brewster, C. (2014). How far do cultural differences explain the differences between nations? Implications for HRM. *The International Journal of Human Resource Management*, 26(2), 151–164. <https://doi.org/10.1080/09585192.2014.937969>
- Weinstock, D. (2015). Hiring new staff? Aim for success by onboarding. *The Journal of Medical Practice Management: MPM*, 31(2), 96.
- Wickramasinghe, V., & Perera, L. (2010). Graduates', university lecturers', and employers' perceptions towards employability skills. *Education & Training*, 52(3), 226-224. doi: <http://dx.doi.org/10.1108/00400911011037355>
- Yorke, M. (2006). *Employability in Higher Education: What it is, what it is not*. York: The Higher Education Academy
- Zaharee, M., Lipkie, T., Mehlman, S. K., & Neylon, S. K. (2018). Recruitment and Retention of Early-Career Technical Talent. *Research-Technology Management*, 61(5), 51–61. <https://doi.org/10.1080/08956308.2018.1495966>
- Zelkowitz, M. (2010). *Advances in Computers: Improving the Web*. Academic Press.

Appendix

1. Interview Guides

Interview Guide - Employees

Research Question:

What challenges do employers and employees in the IT sector experience when onboarding graduates in a flexible work situation, and how do the organizational contextual factors shape the experience?

Aim:

To understand onboarding/traineeship recent graduates in the IT sector and what can be improved.

- Introduction
 - Introduce the research aim and myself and thank them for taking the time.

Ask for consent to record. Also, state that everything will be anonymous, and no names will be used (participants 1, 2, etc., and Company D and S)

Before we begin, I want to assure you that your interview is completely anonymous. Your name and any identifying information will be kept confidential and will not be shared with anyone. Also, I would like to request your consent to record this interview. The recording will be used solely to transcribe the interview and analyze the data. If you're comfortable with that, we can proceed with the interview. Please let me know if you have any questions or concerns.

- Please tell me a bit about yourself and your job. Here: also find out how much employees work flexibly.
- How long have you been with the organization?

Experiences with onboarding and socialization:

- Can you tell me something about how you have experienced the onboarding/traineeship and socialization process at Company X (so far)?

Ask follow-up questions to get more detailed insight into the onboarding process, content-wise (perhaps related to 4 Cs) and process-wise (the 3 stages)

- Can you describe any specific training or development programs you were offered during the onboarding process?
- Can you tell me how you experienced the guidance and support you received during the onboarding process?

Follow-up questions are, for instance: Were you satisfied with the support and guidance?

Why (not)?

- How did the organization help you get integrated socially with your teammates?
- How did you communicate with your onboarding team during the onboarding?
- How were your job expectations and responsibilities communicated to you during the onboarding process?
- How did you feel providing feedback about your onboarding experience? How was this feedback received and acted upon?
- What are/were the struggles you dealt with while switching from university to a job?

Ask follow-up questions to get more detailed insight into why and why not people are satisfied and what the struggles/challenges exactly are. If people themselves come up with the flexible/hybrid working context: then dig into this further. If not, you can introduce the topic yourself.

Organizational Contextual Factors:

- What is your take on the org culture? How do you experience this? Can you tell me how this was part of the onboarding process in your experience?
- What are aspects of the onboarding process that represent this organization's identity or culture?
- How do you perceive the work environment with hybrid and remote work? Would you prefer more of anything?

Final question:

- As a final question, is there anything you would like to share with me about the onboarding experience for recent graduates at the organization?
- Thank them for the time and the interview and tell them what will happen now.

Interview Guide - Employers

Research Question:

What challenges do employers and employees in the IT sector experience when onboarding graduates in a flexible work situation, and how do the organizational contextual factors shape the experience?

Aim:

To get an understanding of onboarding recent graduates in the IT sector and what can be improved.

Introduction:

- Introduce the research aim and myself.
- Ask for consent to record. Also, state that everything will be anonymous, and no names will be used (participants 1, 2, etc., and Company X and Y)

Before we begin, I want to assure you that your interview is completely anonymous. Your name and any identifying information will be kept confidential and will not be shared with

anyone. Also, I would like to request your consent to record this interview. The recording will be used solely to transcribe the interview and analyze the data. If you're comfortable with that, we can proceed with the interview. Please let me know if you have any questions or concerns.

- Please tell me a bit about yourself and your job. Here: also find out how much employees work in a flexible way.
- How long have you been with the organization?

Onboarding and socialization:

- Can you explain the content of the onboarding process at Company X?
- How did the onboarding process get develop? And why did you decide on that process with autonomous teams having a lot of the responsibilities?
- What is vital for Company X in the onboarding process? Why?
- Can you tell me something about how you have experienced, from an employer's view, the onboarding and socialization process at Company X (so far)?

Ask follow-up questions to get more detailed insight into the onboarding process, content-wise (perhaps related to 4 Cs) and process-wise (the 3 stages)

- Which aspects of the onboarding process are you satisfied with, and what kind of challenges, struggles, or problems do you experience or observe?
- How do you ensure that recent graduates feel welcomed and valued during onboarding, as it might be their first job since university?
- How do you ensure they become integrated into the team they will work with?
- How does the onboarding differ between recent graduates (Recently graduated from university) and employees in the labor market longer?

- Can you share any examples of how you helped recent graduates adjust to the expectations of their role and the organization?
- How do you address the specific need of recent graduates, such as providing mentorship or guidance?
- How do you gather feedback from recent graduates about their onboarding experience?
- What is the turnover rate in Company X during the onboarding?

Ask follow-up questions to get more detailed insight into why and why not people are satisfied and what the struggles/challenges exactly are. If people themselves come up with the flexible/hybrid working context: then dig into this further. If not, you can introduce the topic yourself.

Organizational Contextual Factors:

- Can you tell me anything about the organizational culture at Company X?
- Do you experience societal factors affecting your onboarding? Such as an increase in more people wanting to do hybrid/remote work; how do you experience this?
- To what extent do you experience the onboarding being affected by the industry that you are operating in?

Final question:

- As a final question, is there anything you would like to share with me about the onboarding experience for recent graduates at the organization?
- Thank them for the time and the interview, and tell them what will happen now.

2. Coding Categories

Core Category:

Onboarding/Traineeship

The following is the categories used when coding the interviews.

1. Onboarding/Traineeship challenges
2. Onboarding/Traineeship structure
3. Flexible work environment challenges
4. Organizational culture
5. Mentorship
6. Mentorship challenges
7. Socialization
8. Part-time strategy
9. Traineeship strategy
10. Time-to-productivity
11. Onboarding training
12. Traineeship training
13. Practice-based training
14. Class-based training
15. Autonomous Teams

16. Clarification

17. Communication

18. Onboarding/traineeship IT sector

19. Soft skills

20. Technical skills

21. Feedback