ONBOARDING LEARNING MODALITIES AND THE RELATIONSHIPS

WITH ONBOARDING EXPERIENCE, LOCUS OF CONTROL,

SELF-EFFICACY, AND EMPLOYEE ENGAGEMENT

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Online and hybrid onboarding, or new-hire training and assimilation, has grown increasingly common in corporate settings, especially since the COVID-19 pandemic. This study explores how perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement differed between those who onboarded with in-person, hybrid, or online methods. This study also explores how work locus of control could moderate these relationships and examines the relationships between employee engagement and onboarding experience, locus of control, and self-efficacy. This study used qualitative research methods in the form of a self-administered online questionnaire aimed at corporate employees who had onboarded within the previous 18 months. One hundred fifty-three employees completed the survey. It was found that no significant difference in the variables existed between modalities, except for the task characteristic subscale of perceived onboarding experience in which scores were lower for those onboarded in-person. However, work locus of control was found to significantly moderate the relationships between onboarding modality and experience, locus of control, and self-efficacy. Additionally, employee engagement was increased with higher perceived onboarding experience, more internal loci of control, and higher self-efficacy. In addition to the research questions, demographic data were also explored. It was found that perceived onboarding experience was negatively correlated with age, education level, and employment level, locus of control was negatively correlated with age, and work-related self-efficacy was positively correlated with employment level. Further, males were found to have

more internal loci of control while females had more external loci of control. Women were also found to have statistically significant lower employee engagement. Overall, this study found that, while onboarding modality itself is not a predictor of employee experiences, other characteristics of onboarding and individuals' attributes could impact the success of onboarding programs and employees' experiences.

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CHAPTER 1

INTRODUCTION

New employee onboarding is the process through which new hires learn about and are acclimated to the performance-related and social aspects of their new role within an organization (Bauer, 2010). This practice is not simply a one-time training; onboarding as a process can take between 6 months to 1 year, as the socialization aspect of onboarding is ongoing and is crucial to new-hire adjustment within this period (Gupta et al., 2018; Jeske & Olson, 2021; Kiesling & Laning, 2016; Saks & Gruman, 2018). While online, asynchronous training has been used in corporate learning for a couple of decades, such as in compliance training, (Friefield, 2018; Ho, 2018; LinkedIn Learning, 2018), the formal learning within onboarding had largely been conducted through traditional, in-office means (Rodeghero et al., 2021; Scott et al., 2022). With the increasingly global work environment, especially for large corporations, as well as the considerable transition to remote work due to the COVID-19 pandemic, online onboarding methods have increased in prevalence (Bankins et al., 2022; Jeske & Olson, 2021; Margallo et al., 2021; Petrilli et al., 2022; Ployhart et al., 2021; Rodeghero et al., 2021; Scott et al., 2022, van Zoonen et al., 2021).

With the operations for most American corporations being forced to occur remotely as a result of the 2020 pandemic, newcomer onboarding also shifted to online (or in some cases, hybrid) for many of these corporations (Bankins et al., 2022; Jeske & Olson, 2021; Margallo et al., 2021; Scott et al., 2022). In fact, from studies conducted within the first 3 months of the pandemic in the United States (starting March 2020), the number of employees working remotely nearly doubled from pre-COVID numbers (Scott et al., 2022), and the number of those who continue to work remote even with the waning of the pandemic's effects remains as high as

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59% of workers for whom remote work was feasible at the start of 2022 (Parker et al., 2022). For those who started new jobs during the COVID-19 pandemic, online new employee training was a significant change due to the conversion of onboarding in some companies to an online or partially online solution under emergent circumstances (Jeske & Olson, 2021; Gonçalves et al., 2021; Margallo et al., 2021; Ployhart et al., 2021; Scott et al., 2022). The move to both remote work and subsequent remote onboarding was at the detriment of some employees as evidenced in research by the impact on employee outcomes such as employee engagement (Ployhart et al., 2021), stress and anxiety (Cai et al., 2021; Scott et al., 2022), socialization (Bankins et al., 2022; Petrilli et al., 2022; Russo et al., 2023), job satisfaction (Mahmood et al., 2021; Scott et al., 2022), work-related self-efficacy (Petrilli et al., 2022), resource access (Bankins et al., 2022), slower learning process (Russo et al., 2023) and overall onboarding experience (Bankins et al., 2022; Petrilli et al., 2022; Ployhart et al., 2021; Scott et al., 2022).

With an increasingly global workforce, it is only natural for corporations to consider alternative ways to orient their new employees, be they completely or partially remote. However, employers still need to consider how these methods, as compared with fully in-person new employee onboarding, can impact their employees. Even before the COVID-19 pandemic, only 12% of employees believed onboarding at their organization was effective (Scott et al., 2022), and the issues with onboarding, such as lack of role clarity (Saks & Gruman, 2018), socialization (Bankins et al., 2022; Petrilli et al., 2022; Russo et al., 2023), and feedback (Gupta et al., 2018), were only exacerbated due to the near-instant migration to online onboarding during the pandemic (Bankins et al., 2022; Ployhart et al., 2021; Scott et al., 2022). Further, according to Bauer (2010), a survey at Corning Glass Works found that 69% of new employees would be retained as employees for up to 3 years if they participated in a well-structured onboarding

program. Without a carefully designed onboarding program based on best practices for online learning, many employees' work experiences are lacking (Bankins et al., 2022; Jeske & Olson, 2021; Scott et al., 2022; Ziden & Joo, 2020). While the impacts of poor onboarding can be mitigated through organizational support, carefully considering how to improve future onboarding methods based on modality could assist in thwarting these problems at the source (Bankins et al., 2022; Jeske & Olson, 2021; Russo et al., 2023; Saks & Gruman, 2018; Scott et al., 2020; Ziden & Joo, 2020). The literature surrounding how the modality of onboarding impacts the experiences of employees is extremely limited, and more research could assist organizations in making sound and purposeful decisions about onboarding.

Problem Statement

Historically, research has focused on the effectiveness of specific online onboarding interventions or the relationships between onboarding and several social and workplace variables, including relationship building (Bankins et al., 2022; Carlos & Muralles, 2021; Hemphill & Begel, 2011; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021), job expectations and performance (Hemphill & Begel, 2011; Kikuchi et al., 2022; Margallo et al., 2021), employee satisfaction (Mahmood et al., 2021), self-efficacy (Moe et al., 2020; Petrilli et al., 2022), turnover intention (Peltokorpi et al., 2022; Ziden & Joo, 2020), access to resources (Bankins et al., 2022; Rodeghero et al., 2021), and overall experience (Kikuchi et al., 2022; Petrilli et al., 2022; Ployhart et al., 2021; Rodeghero et al., 2021; Scott et al., 2022). However, there is little to no empirical research that directly compares among onboarding modalities (Meyer & Bartels, 2017; Scott et al., 2022; Singh, 2003). Further, while online and blended learning has been studied (Alfaqiri et al., 2022; Cocquyt et al., 2019; Fielitz & Hug, 2019; O'Byrne & Pytash, 2015; Park et al., 2012; Singh, 2003), there is limited research

on the differences between these modalities in the context of new hire onboarding (Bankins et al., 2022; Carlos & Muralles, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Kikuchi et al., 2022; Kim, 2020; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021). In this study, the 3 modalities of onboarding investigated were: online, in-person, and hybrid.

Moreover, while much research exists on how onboarding impacts outcomes such as work-related self-efficacy (Bandura, 1977; Gupta et al., 2018; Judge & Bono, 2001; Ozyilmaz et al., 2018; Saks, 1995; Saks & Gruman, 2012), employee engagement (Athira, 2022; Bakker et al., 2008; Hirschi, 2012; Knezović & Đilović, 2020; Molino, Cortese, & Ghislieri, 2020; Saks & Gruman, 2018; Schaufeli, Bakker, & Salanova, 2006; Tekeli & Özkoç, 2022), and locus of control (Caliendo et al., 2022; Chen et al., 2016; Ellis et al., 2015; Gangai et al., 2016; Gheorghe, 2019; Gupta et al., 2018; Judge & Bono, 2001; König et al., 2010; Peltokorpi et al., 2022; Suherlan, Wahyuni, & Hazairin, 2017; Tekeli & Özkoç, 2022), no research exists that explores the differences in these outcomes across modalities to the researcher's knowledge. Moreover, there is limited research that explores how locus of control influences the relationships between onboarding modality and employee outcomes.

Additionally, while research has compared the experiences of remote workers versus non-remote workers, there are still gaps as it relates to onboarding specifically (Rymaniak, 2021; Staples, 2001; van Zoonen, 2021; Yadav et al., 2020). Overall, little attention has been paid in research to comparing the impacts of onboarding modality (Meyer & Bartels, 2017; Saks & Gruman, 2018; Yadav et al., 2020). This leaves a gap in the literature to be filled: how does the method of new employee onboarding (in-person, online, or hybrid) relate to employee experiences?

Purpose of the Study

Due to the lack of research comparing the impacts of different onboarding modalities (in-person, online, or hybrid), this study aimed to determine how the method of onboarding is related to several facets of employee experience. Specifically, this study gathered data on 4 main variables: perceived onboarding experience, locus of control, work-related self-efficacy, and employee engagement. While this study did not explore the direct impacts of onboarding modality on organizational outcomes, each of the variables that were researched have been demonstrated to impact various aspects of an employee's and a corporation's performance (see for example Bakker & Demerouti, 2008; Cho & Lewis, 2012; Gangai et al., 2016; Gheorghe, 2019; Gupta et al., 2018; König et al., 2010; Knezović & Đilović, 2020; Ng et al., 2006; Ozyilmaz et al., 2018; Peltokorpi et al., 2022; Phillips & Gully, 1997; Pratiwi et al., 2018; Saks & Gruman, 2018; Yaqub et al., 2021).

Perceived onboarding experience has been linked to outcomes such as employee satisfaction and turnover intention (an employee's desire to leave a company for different opportunities), which can lead to increased costs associated with low employee retention (Cho & Lewis, 2012; Gupta et al., 2018; Pratiwi et al., 2018; Saks & Gruman, 2018). Locus of control has been observed to relate to learning motivation, onboarding experience, goal realization, organizational commitment, and job satisfaction (Gangai et al., 2016; Gupta et al., 2018; Ng et al., 2006; Peltokorpi et al., 2022; Phillips & Gully, 1997; Suherlan et al., 2017). Additionally, locus of control has been found to mediate the relationships between onboarding and outcomes such as turnover intention, socialization, and job performance (Gheorghe, 2019; Gupta et al., 2018; König et al., 2010). Employee engagement has been shown to correlate to several organizational outcomes, specifically job performance. Research has found that higher employee

engagement can lead to higher customer satisfaction scores, organizational reputation, employee retention, higher revenue generation, and generalized improved work performance (Bakker & Demerouti, 2008; Bakker et al., 2008; Knezović & Đilović, 2020; Ologbo & Sofian, 2012). Work-related self-efficacy has been found to impact several facets of the workplace, including job performance, turnover intention, transfer of training knowledge, and workplace citizenship (Gupta et al., 2018; Judge & Bono, 2001; Ozyilmaz et al., 2018; Yaqub et al., 2021).

With these variables' demonstrated impact on several factors important to organizational performance, research focused on how onboarding modality relates to these constructs is valuable. The purpose of this study was to investigate if and how onboarding modality is related to or impacts any of these variables to provide insight into how organizations can mitigate or leverage these impacts. The purpose of this research was to examine onboarding modality's relationship with new hire employees' experience and personal traits. Because of this, this dissertation research's efforts were focused on answering the following 8 research questions:

Q1.　What is the relationship between onboarding modality and employees' perceived onboarding experience?

Q2.　What is the relationship between onboarding modality and employees' locus of control?

Q3.　What is the relationship between onboarding modality and employees' work-related self-efficacy?

Q4.　What is the relationship between onboarding modality and employees' engagement?

Q5.　How is perceived onboarding experience related to employee engagement?

Q6.　How is work locus of control related to employee engagement?

Q7.   How is work-related self-efficacy related to employee engagement?

Q8.   How does locus of control moderate the relationships between onboarding modality and perceived onboarding experience, self-efficacy, and employee engagement?

Theoretical Framework

The two main theoretical perspectives that supported the efforts of this study were those of Saks and Gruman's (2018) socialization resource theory and Ziden and Joo's (2020) digital onboarding conceptual framework.

Socialization Resource Theory

Serving as part of the theoretical framework for this study was socialization resource theory (SRT) (Saks & Gruman, 2012). This theory posits that socialization is imperative to new employees' engagement, success, and retention in their first year of employment (Saks & Gruman, 2012). According to SRT, new employees need to be supported using socialization-focused resources during newcomer onboarding, such as feedback, recognition, and supervisor support (Saks & Gruman, 2012; Saks & Gruman, 2018). When combined with job demands and the personal qualities of employees such as self-efficacy, these resources can directly impact several employee outcomes (e.g., job satisfaction, turnover intention, work engagement) (Saks & Gruman, 2012; Saks & Gruman, 2018). The idea that socialization is critical to new employee onboarding and success, even across modalities, is robustly supported by the literature (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Johnson et al., 2018; Martyniuk et al., 2021; Petrilli et al., 2022; Rodeghero et al., 2021; Zajac et al., 2021).

In addition to the literature that has focused on socialization's role in employee success, SRT has been used and expanded upon in previous research about newcomers' experiences (Cai et al., 2021; Cranmer et al., 2017; Gupta et al., 2018; Oh, 2018). For example, in Gupta et al.'s (2018) research on onboarding experience and turnover intention, SRT underscored the experiences the newcomers reported. Specifically, factor analysis identified 4 constructs of SRT present in onboarding experience: orientation training, task characteristics, socialization, and leadership (Gupta et al., 2018). Higher levels of these resources, according to the questionnaire data, correlated with lower reported levels of turnover intention (Gupta et al., 2018). SRT, as a framework, has provided a strong sense of what social resources can impact employee outcomes. In their SRT, Saks and Gruman (2012) assert that the key to keeping new employees engaged during their first year of employment at an organization is to provide socialization-focused resources. For new employee onboarding to be effective, new employees need to be supported using several types of resources, such as supervisor support, feedback, and recognition (Saks & Gruman, 2012). These, along with the demands of the job and employees' personal attributes such as self-efficacy, directly impact employee engagement as well as social outcomes including job satisfaction and work commitment (Saks & Gruman, 2012; Saks & Gruman, 2018).

The framework of this dissertation was supported by SRT, as it aimed to determine how the modality of onboarding relates to several of these important facets, notably perceived onboarding experience, self-efficacy, and work engagement. This study explored perceived onboarding experience and its factors, which themselves are grounded in SRT (Saks & Gruman, 2012). These factors include task characteristic, orientation training, leadership, and socialization. This study aimed to determine the relationship to the onboarding modality of these 4 factors of SRT within the overall onboarding experience. Additionally, this research sought to

examine the relationship between self-efficacy and the method of onboarding. According to SRT, "training is a key predictor of newcomers' self-efficacy," and so this study explored whether the modality of that training correlates with self-efficacy (Saks & Gruman, 2018, p. 26). Lastly, SRT posits that work engagement is directly related to organizational outcomes. This paper aimed to explore the relationship between onboarding method and employee engagement and thus the ancillary relationship between onboarding method and work outcomes (Saks & Gruman, 2012; Saks & Gruman, 2018).

Digital Onboarding Conceptual Framework

Digital onboarding conceptual framework also served as a theoretical framework underpinning this study (Ziden & Joo, 2020). The digital onboarding conceptual framework (DOCF) explores ideas regarding technology application in the new employee onboarding process (Ziden & Joo, 2020). This framework was created, in part, by adapting the Technology Acceptance Model (TAM) (Davis, 1989) with Bandura's (1986) research on the role of self-efficacy in technology acceptance. At its core, this framework posits that the use (and subsequent success) of digital onboarding is largely grounded in several factors, including perceived ease of use (impacted by the design of the program), organizational support, employee self-efficacy, and expected usefulness of the program (Ziden & Joo, 2020). This framework as a whole has been supported by successive literature (Chan et al., 2021; Petrilli et al., 2022), as have its components. For example, TAM is widely used when integrating technology into training programs (Chatzoglou et al., 2009; Cheung & Vogel, 2013; Hashim, 2008; Molino et al., 2020; Lee et al., 2013; Park et al., 2012; Scherer et al., 2019). TAM has been found to be extremely effective in improving the acceptance of technology for use in training in these studies. Additionally, Bandura's focus on self-efficacy in learning and technology acceptance is

supported in further research (Khodabandeh & Sattari Ardabili, 2015; Torkzadeh & Koufteros, 1994; Torkzadeh & Van Dyke, 2002; Yakub et al., 2021).

While self-efficacy in general has been found to be instrumental to the success of onboarding programs (Bandura, 1977; Gupta et al., 2018; Judge & Bono, 2001; Ozyilmaz et al., 2018; Saks, 1995; Saks & Gruman, 2012), there is a gap in the literature on the use of TAM in new employee training settings. However, Ziden and Joo's (2020) framework combines the essential role of self-efficacy in new employee onboarding with TAM to create a framework that encapsulates much of what is necessary for effective digital onboarding programs.

This study was underpinned by the DOCF, as this paper sought to determine the relationship between the modality of onboarding and several employee work-related outcomes; this theory focuses on how well designed and supported onboarding can lead to higher engagement in that onboarding. The researcher aimed to extend this theory, determining if the impact of onboarding is strengthened or weakened based on modality. Additionally, Ziden and Joo (2020) emphasized the influence of self-efficacy on the online onboarding experience. In this study, the researcher sought to discover what intervening relationships, if any, exist between the modality of onboarding and several factors and if self-efficacy's impact on these relationships is more salient for online onboarding than it is for hybrid or in-person new employee training.

Significance of the Study

The significance of this study is both theoretical and practical. In an increasingly global world, especially in the wake of the COVID-19 pandemic, online and hybrid new employee training is increasing in prevalence (Freifeld, 2018; Parker et al., 2022; Scott et al., 2022). However, research focused on how the modality of training relates to workplace and employee outcomes is lacking. While existing research focuses on the impacts of technology-mediated

employee onboarding or of onboarding in general (Becker & Bish, 2021; Cable et al., 2013; Caldwell & Peters, 2018; Graybill et al., 2013; Kikuchi et al., 2022; Kammeyer-Mueller et al., 2013; Lavigna, 2009; Meyer & Bartels, 2017; Ziden & Joo, 2020), very limited research directly compares how different modalities (i.e., remote, in-person, hybrid) of onboarding relate to other work-related outcomes (Meyer & Bartels, 2017). Therefore, this study contributed empirical research to the body of literature focused on onboarding best practices, adding knowledge to and filling a gap in that research.

Additionally, this study has opened the door for further research on onboarding modality. Research spurred from this study might include studies focused on the instructional design of onboarding, the tools used to facilitate learning, the ways leadership can support onboarding across modalities, and how socialization and interpersonal relationships differ based on the method of onboarding. The results of this study will allow for a deepened understanding of the role of learning technologies in new employee onboarding.

Beyond motivating future research directions, this study's results also have implications for practice. This research will benefit learning and development practitioners and training decision-makers in corporate settings by providing a more in-depth understanding of the relationship between the method of onboarding and employee work outcomes. Practitioners can become aware of the ways in which these modalities differ as they relate to perceived experience, locus of control, work engagement, and self-efficacy and make decisions regarding the design and implementation of new employee onboarding. Additionally, the findings of the study will benefit instructional designers, who can consider the relationships of these variables with onboarding modality to mitigate any challenges or leverage any positive outcomes.

Relevance to the Field of Learning Technologies

According to the Association for Educational Communications and Technology (AECT), learning or educational technologies is "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources" (Januszewski & Molenda, 2013, p. 1). This study aimed to uncover patterns as they relate to new employee learning using learning technologies; specifically, how does the use of technology-mediated learning experiences relate to employee outcomes? As evidenced by research, onboarding experiences have both direct and indirect impacts on employee performance, employee socialization, and organizational outcomes (Becker & Bish, 2021; Cable et al., 2013; Caldwell & Peters, 2018; Gupta et al., 2018; Kikuchi et al., 2022; Kammeyer-Mueller et al., 2013; Meyer & Bartels, 2017; Saks & Gruman, 2018; Ziden & Joo, 2020). By exploring additional factors (namely, onboarding modality) that affect these variables, this study intended to provide insight into the successes and deficiencies of particular modalities of onboarding. From there, recommendations for future research were made with the intention of improving the use of technology to facilitate onboarding and improve employee and organizational performance.

Definition of Terms

This study examined several major constructs: onboarding modality, perceived onboarding experience, locus of control, employee engagement, and self-efficacy. These concepts are defined in the section below. Additional relevant terms used throughout this paper are also defined to provide a more comprehensive understanding of the study.

Onboarding, as defined by Bauer (2010), is "the process of helping new hires adjust to social and performance aspects of their new jobs" (p. 1). While onboarding programs often last

up to 15 months (Gupta et al., 2018; Saks & Gruman, 2018), in this study, onboarding was considered as the first 6 months of employment, as that is a time period in which formal learning and socialization are most crucial to new employee adjustment (Keisling & Laning, 2016; Saks, 1995). In this study, the onboarding modality, or the manner through which new employee training is delivered, was examined as a categorical variable. This research divided onboarding modality into 3 categories: in-person, online, and hybrid. Definitions for each of these modalities are provided below.

(a) *In-person* onboarding was defined in the study as when a new employee goes to work at a physical office location and attends in-person training sessions for the first 6 to 12 months of employment (O'Byrne & Pytash, 2015).

(b) *Online* onboarding in this research was when the new employee attends work and training completely online from a remote location, such as their home. Training was facilitated online, either synchronously, asynchronously, or in a combination of both (Ziden & Joo, 2020).

(c) *Hybrid* new employee training is a combination of both in-person and online onboarding. In this study, any significant division between online and in-person training was considered hybrid onboarding (O'Byrne & Pytash, 2015).

Corporate professionals were the target population of the study and were defined as workers employed in jobs that require some level of education or licensure within the corporate sector. Corporations are large private-sector companies that operate on a for-profit basis.

Perceived onboarding experience in this study was defined similarly to onboarding, as it focuses on the process through which new hires quickly reach maximum productivity through the processes of learning, goal setting, socializing, and strategizing (Gupta et al., 2018).

However, a key difference is that this is the perceived experience of employees, meaning participants self-report the quality of their experience during the onboarding process. More specifically, onboarding experience was measured through 4 major factors, which are grounded in SRT: socialization, orientation training, leadership, and task characteristic (Gupta et al., 2018; Saks & Gruman, 2012; Saks & Gruman, 2014). These terms are defined below.

(a) *Socialization* was defined as the interpersonal interactions with colleagues or supervisors during the onboarding process (Saks & Gruman, 2014). Social support has been found to be an extremely important part of the onboarding process (Gupta et al., 2018; Saks & Gruman, 2014).

(b) *Orientation training* is the actual training program that is designed to introduce newcomers to their job, the holistic organization, and their coworkers (Klein & Weaver, 2000). Orientation training provides new employees with the information needed to assimilate into their organization, including policies, colleagues, and job duties (Gupta et al., 2018; Klein & Weaver, 2000).

(c) *Leadership* in this study was defined as the behavior of leaders (such as new employees' managers or supervisors) that impact the experience of the new employees (Gupta et al., 2018). These behaviors might include sharing feedback, providing explanations of company policies and processes, and facilitating integration into the team (Gupta et al., 2018).

(d) *Task characteristics* are the qualities of a task performed during new employee training that impact positive work behavior and attitude during the onboarding process (Gupta et al., 2018). These include task significance, autonomy, task variety, and performance feedback (Gupta et al., 2018).

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Locus of control in this study was defined as the perspective employees have on what causes reinforcement, such as promotion, accomplishment, or reward (Kormanik & Rocco, 2009; Rotter, 1966). An individual's locus of control can be either *internal* (the belief that positive events occur based on one's own behavior or traits) or *external* (the belief that reinforcement is because of luck or other factors beyond one's control) (Kormanik & Rocco, 2009). For example, someone with an individual locus of control may believe that a promotion is earned based on hard work and ability, while someone with an external locus of control may believe that a promotion is earned based on luck or having the right connections (Kormanik & Rocco, 2009).

Work-related self-efficacy in this study is defined as a person's confidence in their ability to achieve or cope with difficult tasks or problems in the workplace (Bandura, 1977). Individuals with high self-efficacy consider challenging issues to be exciting obstacles to overcome, while those with low self-efficacy may consider them to be insurmountable.

Employee engagement is defined as a positive state of mind in the workplace characterized by high levels of energy, enthusiasm, and dedication to their work (Schaufeli et al., 2002). Engaged employees are often so immersed in their work that their days go by quickly and they are excited to work (Bakker & Demerouti, 2008).

Summary

This chapter provides a foundation for the research study exploring the relationships between onboarding modality and several facets of a new employee's experience, including perceived onboarding experience, locus of control, employee engagement, and work-related self-efficacy, along with the moderating role of self-efficacy on these relationships. This chapter presents an introduction, a problem statement, and the purpose of the study. The research questions are also outlined. Additionally, the theoretical frameworks that supported this study is

provided, along with definitions of key concepts that were used in this dissertation. In the

following chapter, a thorough review of the relevant literature is presented.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of the literature related to the research study. Included in this section is an overview of the conceptual framework for this study. This is followed by an abbreviated overview of the relationship between onboarding and employee- and business-related outcomes. Next, this section explores the literature about the effectiveness and outcomes of onboarding in online and hybrid onboarding settings. This chapter ends with a review of the literature related to key constructs, including perceived onboarding experience, locus of control, employee engagement, and work-related self-efficacy and how these relate to onboarding modality and each other.

Theoretical Background

The constructs examined in this study were perceived onboarding experience, work locus of control, work-related self-efficacy, and employee engagement, in addition to onboarding modality. The exploration of the potential relationships between these variables and onboarding modality were grounded in two theories: socialization resource theory (SRT) (Saks & Gruman, 2012) and digital onboarding conceptual framework (DOCF) (Ziden & Joo, 2020). In the following section of this chapter, a synthesis of these theories and the literature as it relates to them and this study is presented.

Socialization Resource Theory

This study is grounded, in part, in SRT (Saks & Gruman, 2012). As evidenced by the literature on Saks & Gruman's (2012) SRT, socialization during the new employee onboarding process is critical to the success of employees and onboarding programs (Carlos & Muralles, 2021; Gupta et al., 2018; Jeske & Olson, 2021; Johnson et al., 2018; Petrilli et al., 2022;

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Rodeghero et al., 2021). The theory asserts that, in addition to the socialization opportunities for the new employees, the personal attributes of the newcomer, namely self-efficacy (Gupta et al., 2018; Saks & Gruman, 2012; Saks & Gruman, 2018) and locus of control (Gupta et al., 2018), can affect onboarding's impact on outcomes such as perceived onboarding experience, turnover intention, and job engagement. In previous research, employee engagement has been found to be related to onboarding experience (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Petrilli et al., 2022; Saks & Gruman, 2018) and self-efficacy (Albrecht & Marty, 2020; Bakker & Demerouti, 2008; Bakker et al., 2008; Hirschi, 2012; Luhans & Peterson, 2002; Saks & Gruman, 2014). This study aimed to explore how onboarding modality can relate to employee engagement, perceived onboarding experience, and work-related self-efficacy. The potential differences in employee engagement's relationship with onboarding experience and self-efficacy based on the modality of onboarding were explored.

Digital Onboarding Conceptual Framework

The exploration of the intervening effects of locus of control were rooted in Ziden & Joo's (2020) DOCF. This framework, which asserts that the success of online onboarding is grounded in several factors of the onboarding's design as well as personal qualities such as self-efficacy, underscores the idea that an individual's characteristics can impact the success of onboarding (Ziden & Joo, 2002). This idea is additionally grounded in the literature. For example, research has found that those with an internal locus of control are more engaged in online learning settings than those with an external locus of control, potentially due to increased motivation or technology acceptance in those with internal loci of control (Cascio et al., 2013; Drennan et al., 2005; Hsia et al., 2014). Additionally, locus of control has been found to impact

the intervening role of self-efficacy on onboarding and perceived onboarding experience (Gupta et al., 2018).

Onboarding Outcomes

To understand the relationship between the modality of new employee onboarding and employee outcomes, it is imperative to explore how previous research has linked onboarding (and different modalities of onboarding) to employee outcomes. Research has shown that onboarding is critical to the success of both businesses and employees alike, with onboarding having a direct relationship with several business- and employee-related outcomes (Athira, 2022; Bauer, 2013; Bauer et al., 2007; Beaver & Hutchings, 2005; Cable et al., 2013; Caldwell & Peters, 2018; Frögéli et al., 2022; Gupta et al., 2018; Lyons & Bandura, 2020; Mahmood et al., 2022; Meyer & Bartels, 2017; Saks & Gruman, 2018; Sharma & Stol, 2020; Strack et al., 2021; Wiseman, 2022).

Employee Outcomes

The success of an employee is greatly impacted by their experiences in the first year of employment, which includes newcomer training and socialization (Saks & Gruman, 2018). Studies have illustrated that employee-related outcomes are related to the employee's experience in onboarding; these include job performance (Ashford & Blac, 1996; Bauer et al., 2007; Caldwell & Peters, 2018; Saks & Gruman, 2018; Smith et al., 2021; Wiseman et al., 2022), turnover intention (Bauer et al., 2007; Beaver & Hutchings, 2005; Gupta et al., 2018; Meyer & Bartels, 2017; Narayansany & Isa, 2021; Pratiwi et al., 2018; Smith et al., 2021), employee satisfaction (Ashford & Black, 1996; Bauer et al., 2007; Bauer & Erdogan, 2011; Cable et al., 2013), employee motivation and engagement (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Mahmood et al., 2022; Petrilli et al., 2022; Saks & Gruman, 2018), burnout (Frögéi

et al., 2022), organization-based self-esteem (Frögéli et al., 2022; Gardner et al., 2021), and organizational commitment (Beaver & Hutchings, 2005; Meyer & Bartels, 2017; Sharma & Stol, 2020). Additionally, research has explored how locus of control and work-related self-efficacy is impacted by onboarding, as well as the intervening role these characteristics play on the relationship between onboarding and other outcomes (Chen et al., 2016; Domene, 2012; Gangai et al., 2016; Gupta et al., 2018; Judge & Bono, 2001; König et al., 2010; Lloyd et al., 2017; Oluwole et al., 2020; Ozyilmaz et al., 2018; Phillips & Gully, 1997; Tekeli & Özkoç, 2022).

Research has found that new employee onboarding, when effective, is correlated to an employee's job performance (Ashforth et al., 2007; Bauer et al., 2007; Smith et al., 2021; Wiseman et al., 2022). For example, in their study of newly onboarded salespeople at a furniture retailer chain, Wiseman et al. (2022) found that employees who participated in a decentralized, socialization-focused onboarding program achieved 23.5% higher sales performance than their colleagues that underwent a centralized program. In this study, 2 groups of newly hired salespeople at a furniture store chain participated in 1 of 2 onboarding programs: a decentralized and a centralized program. The decentralized program, also dubbed the individualized-institutionalized condition, took place in the store, and the new hire interacted with experienced salespeople and managers, participated in hands-on learning experiences, and supplemented their learning with digital content. The centralized program, or the institutionalized program, took place in a classroom setting, where instructors facilitated learning through classroom-based and hands-on learning experiences. Job performance was measured as the proportion of the salesperson's quota attained, or sales (in dollars) divided by quota (in dollars), spanning from each employee's first 2 months to 9 months of tenure. Sales performance was 23.5% higher for employees who underwent the decentralized programs than for those who underwent the

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centralized program. According to Wiseman et al. (2022), this difference may possibly be attributed to the socialization tactics; in the decentralized program, new hires experienced socialization on the institutional and individual level, building camaraderie while also encouraging a more tailored onboarding experience. While the centralized program used institutionalized socialization tactics, which have been found to foster commitment to an organization, the program did not focus on individualized socialization. This study emphasized the way in which job performance can differ based on the onboarding program, specifically the way in which the newcomer is socialized in that program.

In addition to job performance, research has found that turnover intention and organizational commitment are correlated with onboarding (Beaver & Hutchings, 2005; Gupta et al., 2018; Meyer & Bartels, 2017; Narayansany & Isa, 2021; Sharma & Stol, 2020; Smith et al., 2021). One study illustrating this is that of Narayansany and Isa (2021). In their study of Malaysian employees in the information and communications technology sector, onboarding effectiveness was inversely related to turnover intention. That is, effective onboarding reduced an employee's intention to leave the organization. Moreover, this study looked at the mediating role of organizational identification in this relationship and found its role was significant. Organizational identification in Narayansany and Isa was defined as "the degree that the employees define themselves as members of the organization" (p. 4). Notably, organizational identification and commitment have been found to be related to socialization in onboarding, further emphasizing that turnover intention is robustly reduced by effective and socially focused onboarding programs (Caldwell & Peters, 2018; Kammeyer-Mueller et al., 2013; Meyer & Bartels, 2017). Research by Gupta et al. (2018) yielded similar results regarding the reduction of

turnover intention with effective onboarding, with a focus on the intervening roles of locus of control and employee self-efficacy.

Further, onboarding has also been correlated with employees' job satisfaction (Ashford & Black, 1996; Bauer & Erdogan, 2011; Cable et al., 2013; Meyer & Bartels, 2017; Sharma & Stol, 2020). For example, in their study focused on the impact of depth of onboarding on newcomers' work attitudes, Meyer and Bartels (2017) found that the level of onboarding had a significant impact on employee satisfaction. The researchers measured the level of onboarding, as enumerated by Bauer (2010), and work attitude by collecting surveys from recently onboarded participants through Amazon Mechanical Turk. These levels of onboarding, according to Bauer (2010), include Compliance, Clarification, Culture, and Connection, with each level becoming increasingly integrated. The deepest of these levels, Connection, incorporates all 3 of the previous levels while integrating the formal and informal forging of relationships between the newcomer and those within the organization (Bauer, 2010; Meyer & Bartels, 2017). Meyer and Bartels (2017) found that participants who were onboarded at the Connection level had higher job satisfaction than those who were onboarded at lower levels. These participants also expressed higher levels of organizational support and, in comparison to the Clarification level, higher levels of organizational commitment (Meyer & Bartels, 2017). Research by Sharma and Stol (2020) yielded similar findings regarding job satisfaction and onboarding. In their study of software professionals, onboarding success had a significant and positive relationship with job satisfaction (Sharma & Stol, 2020). On the flip side, studies such as that by Kirchner and Stull (2021) have found that insufficient onboarding can lead to employees being dissatisfied.

Beyond these outcomes, research has found a relationship between onboarding and work-related self-efficacy and locus of control (Gangai et al., 2016; Judge & Bono, 2001; Ozyilmaz et

al., 2018; Phillips & Gully, 1997); however, much research has focused on the intervening role these factors play regarding onboarding (Chen et al., 2016; Domene, 2012; Gupta et al., 2018; König et al., 2010; Lloyd et al., 2017; Oluwole et al., 2020). Training motivation, onboarding experience, goal attainment, and job satisfaction have been found to be related to locus of control in the workplace (Gangai et al., 2016; Gupta et al., 2018; Phillips & Gully, 1997). Additionally, research has shown that job performance, organizational commitment, and turnover intention are related to work-related self-efficacy (Gupta et al., 2018; Judge & Bono, 2001; Ozyilmaz et al., 2018). Work-related self-efficacy and locus of control have been found to play an intervening role in several work outcomes, including supervisor socialization and innovation, onboarding experience and turnover intention, and training and stress management (Chen et al., 2016; Domene, 2012; Gupta et al., 2018; König et al., 2010; Lloyd et al., 2017; Oluwole et al., 2020). For example, in their study where an online questionnaire was administered to 596 new employees across several industries, Gupta et al. (2018) found that motivation-based self-efficacy was related to turnover intention; this relationship was mediated through the perceived onboarding experience of the employee. Additionally, affective self-efficacy was found to moderate the relationship between perceived onboarding experience and turnover intention, with those with low self-efficacy having an indirect relationship between experience and intention to leave and those with high self-efficacy having a direct relationship between these 2 variables. When it comes to locus of control, more extreme levels of both internal and external locus of control were found to be related to a better onboarding experience. Essentially, locus of control and self-efficacy was found to impact the experiences of newcomers and their desire to find employment elsewhere (Gupta et al., 2018).

Business Outcomes

Just as employee-level outcomes related to onboarding have been explored in research, so have organization-level outcomes. These include profit, customer satisfaction, and direct and indirect cost reduction (Athira, 2022; Bauer, 2013; Cable et al., 2013; Lyons & Bandura, 2020; Mahmood et al., 2022; Strack et al., 2021). For example, research by the Boston Consulting Group (Strack et al., 2021) found that, through a survey of nearly 5,000 HR professionals and an analysis of their companies' revenue, effective onboarding practices were related to profit growth; the companies that employed effective onboarding strategies saw 2.5 times the profit growth compared to companies with less effective onboarding practices (Strack et al., 2021). Customer satisfaction outcomes have also been attributed to the success of new employee onboarding through research (Athira, 2022; Bauer, 2013; Cable et al., 2013; Mahmood et al., 2022). For instance, in their study of 605 Wipro newcomers during the first 6 months of their tenure at their organization, Cable et al. (2013) found that employees' customer satisfaction scores differed depending on their onboarding experiences. Specifically, those who underwent personal-identity-focused onboarding, which implements practices that have been found to be positively associated with onboarding effectiveness (Bauer, 2010; Meyer & Bartels, 2017; Saks & Gruman, 2018), experienced higher customer satisfaction scores throughout the first 6 months of employment, along with reduced turnover intention and stronger colleague relationships (Cable et al., 2013; Pratiwi et al., 2018). Thus, effective onboarding that is built with socialization in mind can lead to better customer-service outcomes, which can also increase revenue and organizational reputation (Bauer, 2013; Cable et al., 2013).

Even more salient than the relationship between onboarding and revenue is that between onboarding and reduction in costs associated with employee attrition. As evidenced by the

literature in the previous section (Beaver & Hutchings, 2005; Gupta et al., 2018; Meyer & Bartels, 2017; Narayansany & Isa, 2021; Sharma & Stol, 2020; Smith et al., 2021), effective onboarding is strongly related to turnover intention; employees who participate in successful onboarding programs are more likely to stay with their organizations (Bauer, 2013; Meyer & Bartels, 2017; Narayansany & Isa, 2021). This leads to reduced costs associated with turnover, such as recruitment, onboarding, loss of productivity, and, indirectly, loss of strategic knowledge (Lyons & Bandura, 2020). Additionally, a strong relationship between turnover and future organizational financial performance has been found in research, with high levels of turnover being negatively associated with sales growth and return on assets for the following quarter (Li et al., 2021). Effective new employee onboarding can reduce not only turnover intention but also the costs associated with employee turnover (Bauer, 2013; Li et al., 2021; Lyons & Bandura, 2020).

Onboarding Modality

Before the increased popularity of remote work, in-person onboarding was considered the traditional method of new employee onboarding (Hemphill & Begel, 2011; Rodeghero et al., 2021; Zajac et al., 2021). Research has explored how different modalities of onboarding, namely online and hybrid, can impact employees and how effective these programs are (Bankins et al., 2022; Carlos & Muralles, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021; Zajac et al., 2021).

Online Onboarding

Online onboarding is new employee training that takes place solely online or remotely (Carlos & Muralles, 2021; Hemphill & Begel, 2011; Zajac et al., 2021). Many research studies focus on the effectiveness and areas of improvement for remote new employee onboarding, with

a significant increase in the prevalence of these studies since the start of the COVID-19 pandemic (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021). Specifically, the research commonly studies onboarding and its success from a socialization-based perspective.

By far, the most common thread in the literature surrounding online onboarding is the way in which newcomer socialization is impacted (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021; Zajac et al., 2021). For instance, in their study of 267 new hires software developers at Microsoft, Rodeghero et al. (2021) explored how remote new employee onboarding impacted newcomers during the quick pivot caused by the COVID-19 pandemic. The survey found that one of the biggest challenges faced by new hires was a hindrance of their ability to connect and socialize with their colleagues (Rodeghero et al., 2021). This can be problematic, as socialization has been identified as a key factor for the success of onboarding programs and newcomer integration and performance (Bauer, 2013; Bauer et al., 2007; Cable et al., 2013; Rodeghero et al., 2021; Saks & Gruman, 2018; Zajac et al., 2022). Other research has yielded similar results, such as in Martyniuk et al. (2021), where newly hired librarian professionals cited difficulty making connections with colleagues and observing veteran colleagues in informal learning situations. Overall, much of the research surrounding online onboarding emphasizes that the loss of the ability to forge in-person relationships with colleagues and have informal conversations with other employees has hindered the experiences of newcomers (Bankins et al., 2022; Carlos & Muralles, 2021; Deal &

Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021).

In addition to the reduction of socialization when new employee onboarding has moved from in-person to online, studies have found that, for distributed teams, domain knowledge and lack of communication tools are common issues that may lead to lower levels of employee satisfaction (Moe et al., 2020). Additionally, due to the lack of social contact with colleagues, informal learning has been found to suffer during online onboarding (Bankins et al., 2022; Zajac et al., 2022). Further, issues with younger new employees' lack of understanding of how corporate organizations work have been identified, as these topics may not be as simple to understand through online onboarding (Deal & Levenson, 2021). These types of problems can increase the cost of training, reduce job performance, and increase turnover intention (Bauer et al., 2007; Cable et al., 2013; Saks & Gruman, 2018).

As a response to the issues that have arisen in online onboarding, especially those surrounding socialization, researchers have proposed extensive recommendations to increase the opportunity for formal and informal socialization in remote settings (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Zajac et al., 2021). Namely, the literature recommends that onboarding programs be formally structured to include opportunities for socialization, such as through digital meet-and-greets with other employees and members of management (Martyniuk et al., 2021). Communities of practice and mentorship programs have also been identified as ways to provide formal socialization during onboarding in remote settings (Carlos & Muralles, 2021; Martyniuk et al., 2021; Petrilli et al., 2022). However, in addition to work-related socialization, it is recommended that employees take time to socialize for the sake of socializing,

especially during times of crisis such as the COVID-19 pandemic where discussion of coping strategies and even entertainment and hobbies can help build togetherness; it is encouraged that management builds out the opportunities for personal conversation, where appropriate (Bankins et al., 2022; Jeske & Olson, 2021; Martyniuk et al., 2021). Additionally, feedback has been cited as a useful way to improve the experiences of newcomers in onboarding settings (Carlos & Muralles, 2021; Petrilli et al., 2022). Through the collection of feedback from employees, programs can be improved and tailored to meet the needs that are missing in remote settings. Lastly, easy-to-use tools for communication, such as Slack where communication can be constant and mirror being able to ask a colleague at their desk, can solve issues regarding newcomers needing support with domain knowledge and using communication tools (Moe et al., 2020).

Hybrid Onboarding

Onboarding programs are considered hybrid when training occurs both online or remotely and in person. Hybrid training and workplaces combine some of the benefits of remote and in-person solutions, such as the increased flexibility and reduced labor cost of remote workplaces and the collaboration and socialization of in-person working environments (Mortenson & Haas, 2021). While research exists studying the impacts of hybrid work, there is significantly less literature surrounding hybrid onboarding than there is focused on remote or in-person new employee training (Cummings et al., 2015; Deal & Levenson, 2021). In fact, research focused on hybrid new-employee onboarding is extremely limited, despite several researchers emphasizing the utility of the hybrid workplace in general (Deal & Levenson, 2021; Fayard et al., 2021). Research around hybrid working models focuses on the need for in-person touchpoints to align expectations and build relationships between employees (Deal & Levenson,

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2021; Fayard et al., 2021). Additionally, research has identified a power imbalance in hybrid workspaces (Mortenson & Haas, 2021). Those who are in-office tend to have significantly more resources than those who work from home, such as the technological infrastructure to support their work, visibility by management, and socialization opportunities (Mortenson & Haas, 2021). Because of this, it is important for employers to ensure that resources available at the office are available to those who spend more time at home; onboarding could very well be a way to provide equitable resources to employees.

Hybrid workplaces are not necessarily equivalent to blended onboarding experiences; in hybrid working environments, some employees are in the office all the time, at home all the time, or in some combination, whereas hybrid learning involves all employees participating in both in-person and online learning (Johnson et al., 2018; O'Byrne & Pytash, 2015). As mentioned, there is a gap in the literature focused on hybrid onboarding (Harder et al., 2016). However, some research, although limited, does exist focused on adult learning in blended environments (Cocquyt et al., 2019; Cummings et al., 2015; Gjestvang et al., 2020; Harder et al., 2016; Johnson et al., 2018; Vanslambrouck et al., 2019). Overall, this research emphasizes, much like the literature on online learning, the need for consistent socialization for successful hybrid learning (Cummings et al., 2015; Gjestvang et al., 2020; Harder et al., 2016; Johnson et al., 2018; Vanslambrouck et al., 2019). For example, in their study of a hybrid postgraduate program in South Africa where learners were face-to-face for 1 week and remote for the remainder of the course, Johnson et al. (2018) found that learners' computer literacy skills, instructors' social engagement, and technological issues impacted the experience of the learners. This supports the research on online onboarding, where socialization is a major factor to employee success and experience (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill &

Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Petrilli et al., 2022; Rodeghero et al., 2021; Zajac et al., 2021). Even in blended new employee onboarding situations, it is important that socialization is emphasized, as this can impact the employees' experience and subsequent performance and experience in the workplace.

With regards to onboarding, in Harder et al.'s (2016) study of hybrid onboarding of new employees at a state agricultural center, the hybrid onboarding program was a success. These employees were trained in cohort-style learning groups, where learners participated in 2 face-to-face training sessions and completed additional training remotely and asynchronously (Harder et al., 2016). While the cohorts enjoyed the onboarding overall, the biggest areas of opportunity to improve the program included improving communication, creating hands-on learning opportunities in both the face-to-face and online sessions, and clearly connecting the online and in-person sessions (Harder et al., 2016). It is essential to consider how social and authentic learning can impact employees in hybrid onboarding settings.

<div align="center">Constructs of the Present Study</div>

In the context of new-employee onboarding, the constructs that are explored in this study (i.e., perceived onboarding experience, locus of control, and employee engagement) have been explored in research. A brief literature review for each construct is presented in the forthcoming sections.

Perceived Onboarding Experience

Perceived onboarding experience has been found in the literature to be linked to turnover intention (Becker & Bish, 2021; Bauer, 2010; Gupta et al., 2018; Pratiwi et al., 2018; Sharma & Stol, 2020), organizational fit and commitment (Cable et al., 2013; Meyer & Bartels, 2017; Petrilli et al., 2022; Sharma & Stol, 2020), job satisfaction (Bauer, 2010; Mahmood et al., 2022;

Meyer & Bartels, 2017), employee productivity (Becker & Bish, 2021; Cable et al., 2013; Caldwell & Peters, 2018; Petrilli et al., 2022), learning transfer (Becker & Bish, 2021; Mahmood et al., 2022; Petrilli et al., 2022), employee motivation and engagement (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Mahmood et al., 2022; Petrilli et al., 2022; Saks & Gruman, 2018) and overall organization performance (Cable et al., 2013; Caldwell & Peters, 2018; Mahmood et al., 2022). If an employee has a negative experience during onboarding, there is a risk of employee attrition and decreased working performance, along with negative impacts on firm performance (Cable et al., 2013; Caldwell & Peters, 2018; Gupta et al., 2018; Mahmood et al., 2022; Meyers & Bartels, 2017; Petrilli et al., 2022).

For example, in their study of the long-term impact of onboarding experience on employee and firm performance in Kazakhstan, Mahmood et al. (2022) found that the employees' experience in onboarding had a profound impact on employee outcomes and organizational outcomes. Specifically, the study found that job satisfaction was highly correlated with the onboarding program's success in outlining how the organization functions and the employee's role within that function (Mahmood et al., 2022). The study also revealed that, in addition to job satisfaction, the success of the new employee training positively influenced learning transfer, organizational commitment, and employee motivation (Mahmood et al., 2022). In addition to employee outcomes, the study found that firm performance was also strongly influenced by employee perception of the onboarding program, with perceived onboarding experience being positively correlated with profitability, revenue growth, operational efficiency, organizational innovation, and customer satisfaction (Mahmood et al., 2022). Perceived onboarding experience can have extensive impacts on the success of a company and an individual employee.

Onboarding Modality and Perceived Onboarding Experience

As it relates to Research Question 1 regarding the relationship between onboarding modality and perceived onboarding experience, the literature is largely absent. While some studies focus on the perceived onboarding experience within particular onboarding programs (Harder et al., 2016; Petrilli et al., 2022; Rodeghero et al., 2021), virtually no research has yet been published directly comparing perceived onboarding experience across in-person, online, or hybrid scenarios (Yadav et al., 2020). Nevertheless, individual studies have explored perceived onboarding experience within in-person (Gupta et al., 2018), online (Petrilli et al., 2022; Rodeghero et al., 2021; Yadav et al., 2020), and hybrid (Harder et al., 2016) environments. While these studies lack the comparison across the modalities, the literature makes clear that the design of the onboarding program and its integration of socialization opportunities can greatly impact employees' experience (Mahmood et al., 2022; Meyer & Bartels, 2017; Rodeghero et al., 2022; Yadav et al., 2020), which, in turn, impacts employee and organizational outcomes (Caldwell & Peters, 2018; Gupta et al., 2018; Mahmood et al., 2022; Meyers & Bartels, 2017; Petrilli et al., 2022).

One study that does compare the experiences of employees during onboarding across in-person and online programs is that of Yadav et al. (2020). In this study, questionnaire responses of individuals who were onboarded in-person prior to COVID-19 were compared with the responses of those onboarding online after the inception of the pandemic. The results revealed that those onboarded online were dissatisfied with their onboarding experience; those who were onboarded in-person had significantly better onboarding experiences (Yadav et al., 2020). This was in large part due to difficulty socializing with others and disorganization of the program (Yadav et al., 2020). However, the dissatisfaction of online attendees was dependent on their

experience with online onboarding; those who had been onboarded virtually in their previous roles were significantly less displeased with their experience than those who had never undergone digital new hire training (Yadav et al., 2020). The potential implications of this finding are that increased prevalence of online onboarding programs could bring with it a larger population of those who are satisfied with the program due to improved design of programs or improved individual ability to cope with online new hire training programs.

Onboarding Experience and Employee Engagement

An individual's experience during onboarding has been found to impact employee engagement (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Petrilli et al., 2022; Saks & Gruman, 2018). For example, in their paper which discusses the literature surrounding socialization and engagement regarding the development of their socialization resource theory, Saks & Gruman (2018) posit that, for newcomers' engagement to maintain from entry to 1-year post-entry, socialization should be built into the onboarding process, such as through mentorship. For engagement to increase, the socialization aspect of onboarding should be robust and well-designed (Saks & Gruman, 2018). This study sought to explore how this relationship differs across onboarding modalities, particularly since online and hybrid onboarding have been reported to lead to fewer opportunities for socialization (Bankins et al., 2022; Carlos & Muralles, 2021; Cummings et al., 2015; Deal & Levenson, 2021; Gjestvang et al., 2020; Harder et al., 2016; Hemphill & Begel, 2011; Jeske & Olson, 2021; Johnson et al., 2018; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021; Vanslambrouck et al., 2019; Zajac et al., 2021).

Locus of Control

In the workplace, locus of control has been found to relate to onboarding experience (Gupta et al., 2018), goal attainment and job performance (Judge & Bono, 2001; König et al., 2010; Phillips & Gully, 1997), employee job satisfaction (Gangai et al., 2016; Judge & Bono, 2001; Ng et al., 2006), turnover intention (Gupta et al., 2018; Peltokorpi et al., 2022), innovation in the workplace (Chen et al., 2016; De Vos et al., 2005; Tekeli & Özkoç, 2022), stress management (Ellis et al., 2015), organizational citizenship and commitment (Gheorghe, 2019; Ng et al., 2006; Suherlan et al., 2017), and learning motivation (Caliendo et al., 2022). Locus of control can be defined as how an individual views the amount of control they have over the things that occur in their life (Kormanik & Rocco, 2009; Rotter, 1966); a person with an internal locus of control believes that they have the ability to make things happen, while someone with an external locus of control believes things happen to them (Kormanik & Rocco, 2009). As it relates to the workplace, an employee with an internal locus of control might believe that those who receive a promotion have earned one through their own actions and abilities, while someone with an external locus of control might believe promotions are awarded to those who are lucky or have the right connections (Kormanik & Rocco, 2009).

Previous research has found that locus of control can impact (or be impacted by) the way in which new employees are socialized in the workplace (De Vos et al., 2005; Ellis et al., 2015; Gupta et al., 2018; Ng, Sorensen, & Eby, 2006; Peltokorpi et al., 2022). For example, Peltokorpi et al. (2022) found that the impact of socialization tactics in new employee training programs differed depending on whether the employee's locus of control was internal or external. In their study of 676 newcomers to various organizations over the first year of their employment, Peltokorpi et al. (2022) found that new employees with an external locus of control experienced

higher social integration and embeddedness and lower turnover when explicit, formally

structured onboarding tactics were used; these employees experienced the inverse under

individualized tactics (i.e., employees were encouraged to mold their roles into what they wanted

and fewer directions were provided), with turnover increasing ninefold with individualized

onboarding tactics. Those with an internal locus of control were not as influenced by the tactic

used in onboarding. This study emphasizes that work locus of control is an important individual

trait that may impact how newcomers fare during onboarding (Peltokorpi et al., 2022).

Locus of Control and Onboarding Modality

While studies such as that of Peltokorpi et al. (2022) explore the ways in which different

onboarding tactics are related to locus of control, the literature about locus of control across

different onboarding modalities is lacking. No research has explored the way in which the

modality of onboarding is related to an individual's locus of control orientation. That being said,

some literature does exist exploring locus of control in online learning settings (Cascio et al.,

2013; Drennan et al., 2005; Hsia et al., 2014). For example, Cascio et al. (2013) explored how

locus of control was related to health care professionals' learning engagement in distance

learning courses. The study found that those with an internal locus of control were more engaged

than those with an external locus of control (Cascio et al., 2013); this finding is mirrored in other

studies of online learning (Drennan et al., 2005; Hsia et al., 2014). The research has posited that

this difference may be due in part to increased motivation or increased technology acceptance of

those with internal loci of control (Cascio et al., 2013; Drennan et al., 2005; Hsia et al., 2014).

Research on corporate learning and/or professional development cannot be generalized to

new hire onboarding due to onboarding's unique enmeshment with socialization; that is, because

onboarding is a process that involves formal training, informal learning, socialization, and

assimilation into an organization's culture, research on general training without a focus on the social aspects is not a exact substitute for onboarding-specific research. That being said, the fact that there is a distinct difference in learning engagement in adults based on locus of control has interesting implications for studies on onboarding modality.

Locus of Control's Intervening Effects on Onboarding

The literature surrounding the experience of employees in the workplace has investigated the intervening effects of locus of control on the relationship between factors such as stress and work outcomes (Conley & You, 2014), communication and organizational citizenship (Gheorghe, 2019), onboarding and turnover intention (Gupta et al., 2018) and job insecurity and performance (König et al., 2010). Overall, the literature finds that locus of control can impact the relationship between outcomes based on whether that locus of control is internal or external. For example, in Gupta et al. (2018), more internal locus of control led to a higher motivation-based self-efficacy (motivation in the face of obstacles) and thus a better onboarding experience. Those with a more external locus of control had higher affective self-efficacy (ability to cope with stress), which partially mediates the relationship between onboarding experience and external locus of control (Gupta et al., 2018). While there is no 'superior' type of locus of control from an intervening role perspective, there were notable differences in the preferences and behaviors of those with high internal versus high external locus of control (Gupta et al., 2018), emphasizing the importance of understanding an individual's locus of control to create personalized onboarding experiences.

Work-Related Self-Efficacy

Work-related self-efficacy is a person's belief in their ability to be successful or to cope with difficult problems in the workplace (Bandura, 1977). Those with high self-efficacy are

generally invigorated by obstacles, believing them to be exciting challenges to overcome, while those with low self-efficacy may be less motivated to tackle these challenges, feeling almost hopeless in the face of a major hurdle (Bandura, 1977). Work-related self-efficacy has been found to relate to several outcomes in the workplace, such as turnover intention (Gupta et al., 2018; Ozyilmaz et al., 2018), employee engagement, (Gupta et al., 2018; Saks, 1995; Saks & Gruman, 2012), organizational citizenship (Ozyilmaz et al., 2018), employee satisfaction (Judge & Bono, 2001; Ozyilmaz et al., 2018), transfer of training knowledge (Saks, 1995; Yaqub et al., 2021; Zaki et al., 2019) and job performance (Judge & Bono, 2001; Zaki et al., 2019). For example, in their study of 300 Turkish employees and their supervisors at a manufacturing company, Ozyilmaz et al. (2018) found that self-efficacy impacted several facets of an employee's experience, namely job satisfaction, task performance, turnover intention, and citizenship behaviors. Higher reported self-efficacy had positive effects on employee satisfaction, performance, and citizenship; this was particularly true when the employees' trust in the organization was high (Ozyilmaz et al., 2018). Interestingly, when organizational trust was low, self-efficacy had a more positive effect on turnover intention, indicating high organizational trust mitigated self-efficacy's negative impacts on intention to quit (Ozyilmaz et al., 2018). Self-efficacy can impact the ways in which employees behave, feel, and perform, making it a crucial consideration when socializing and acclimating new employees to the work environment (Saks, 1995; Saks & Gruman, 2012).

Onboarding Modality and Work-Related Self-Efficacy

Despite the research on self-efficacy in training and newcomer socialization (Gupta et al., 2018; Saks, 1995; Saks & Gruman, 2012; Yaqub et al., 2021; Zaki et al., 2019), there are still gaps in the understanding of self-efficacy's added challenges during the onboarding process

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(Ziden & Joo, 2020). Further, limited research focuses on the differences in work-related self-efficacy and its effects across the modality of onboarding. However, some research does underscore the idea that, for online onboarding to be successful, employees' self-efficacy regarding computer and technology usage must be considered (Bandura, 1986; Bauer, 2010; Compeau & Higgins, 1995; Petrilli et al., 2022; Ziden & Joo, 2020). For example, in their qualitative study of newcomers under 30 across multinational corporations, Petrilli et al. (2022) posit that, for digital onboarding to be successful, programs need to be structured in such a way that new employees feel supported, understand their roles and company culture, and develop their sense of self-efficacy.

Work-Related Self-Efficacy and Employee Engagement

In previous literature, work-related self-efficacy has been found to have a relationship with the employee engagement (Albrecht & Marty, 2020; Bakker & Demerouti, 2008; Bakker et al., 2008; Hirschi, 2012; Luhans & Peterson, 2002; Saks & Gruman, 2014). For example, in their study of the impact of personality on work outcomes, Albrecht & Marty (2020) found that self-efficacy (which was found to be impacted by several personality traits including boldness and diligence) was directly associated with work engagement. Higher levels of reported self-efficacy was correlated with increased work engagement, with a reported r value for this relationship of .52, which was significant at the $p < .001$ level (Albrecht & Marty, 2020). Practically, this emphasizes the potential need for training and onboarding programs to consider how to bolster self-efficacy through the activation of personality traits that predict self-efficacy to thus improve employees' engagement levels (Albrecht & Marty, 2020). In the context of onboarding modality, it is potentially useful to consider how to harness individual characteristics including self-efficacy within in-person, online, or hybrid settings to increase employee engagement and

onboarding effectiveness. This research speculates that work-related self-efficacy's impact on employee engagement will be more strongly negative in online or hybrid settings than in in-person settings.

Employee Engagement

Employee engagement refers to the positive state of mind employees have in the workplace, which is characterized by enthusiasm and dedication to work (Schaufeli et al., 2002). Engagement in the workplace has been found to relate to several employee and organizational outcomes, including employee retention (Albrecht & Marty, 2020; Athira, 2022; Knezović & Đilović, 2020), job performance (Bakker et al., 2008; Molino et al., 2020; Tekeli & Özkoç, 2022), employee satisfaction (Bakker & Demerouti, 2008; Hirschi, 2012; Saks & Gruman, 2014, Schaufeli et al., 2002), reduced burnout (Schaufeli et al., 2002; Schaufeli et al., 2006), organizational citizenship (Knezović & Đilović, 2020), customer satisfaction (Bakker et al., 2008; Molino et al., 2020; Ologbo & Sofian, 2012; Saks & Gruman, 2014), revenue generation (Saks & Gruman, 2014), and organizational reputation (Ologbo & Sofian, 2012). In their study in which survey responses were collected from 682 workers in Bosnia and Herzegovina, Knezović and Đilović (2020) found that several factors were influenced by employee engagement. The study divided employee engagement into 2 domains: job engagement and organizational engagement. The former describes when an employee enjoys the actual work they perform, while the latter is when an employee is engaged towards characteristics of the organization; an employee can be engaged with one or both of these (Knezović & Đilović, 2020). The researchers found that both types of engagement were positively and significantly related to commitment and organizational citizenship, while organizational engagement was negatively related to turnover intention (Knezović & Đilović, 2020). The lack of a relationship between job engagement and

intention to quit may suggest that, though an employee is enthusiastic about their work, that is not enough to stay in a role, especially if a similar job could be found in an organization that is a better fit (Knezović & Đilović, 2020). It is important to consider the impact of employee engagement when designing onboarding programs, as employee engagement can impact organizational and individual outcomes and can be impacted by the effectiveness of onboarding (Alfaqiri et al., 2022; Gupta et al., 2018; Johnson et al., 2018).

Employee Engagement and Onboarding Modality

While employee engagement in onboarding programs is a commonly studied subject, little research exists focusing on the differences in engagement across onboarding modality (Yadav et al., 2020). However, some research does exist that explores engagement in specific online onboarding interventions (Depura & Garg, 2012; Heimburger et al., 2019). These studies tend to focus on gamification as a way to improve engagement in the learning program; overall, gamification of onboarding has been found to be an effective way to improve socialization and employee engagement during the new hire acclimation process (Depura & Garg, 2012; Heimburger et al., 2019; Yadav et al., 2020).

Yadav et al. (2020) also studied the differences in employee engagement between those who onboarded virtually during the COVID-19 pandemic and those who onboarded in-person prior to the epidemic. Overall, those who onboarded in-person reported higher levels of work engagement than those who participated in virtual newcomer training programs (Yadav et al., 2020). Based on their findings, Yadav et al. (2020) recommended gamification, much like other studies (Depura & Garg, 2012; Heimburger et al., 2019) as a way to improve engagement in online onboarding settings. Additionally, opportunities for purposeful socialization and active participation in the program were suggested as ways to mitigate the issues with low employee

engagement in online settings (Yadav et al., 2020). In this study, it was hypothesized that employee engagement would be lower for participants who onboarded in online or hybrid settings than those whose onboarding was in-person.

Summary

In this chapter, a review of the literature as it relates to the present study is presented. First, a review of the literature as it relates to this study's underpinning frameworks is reviewed. This is followed by an overview of onboarding and its employee- and business-related outcomes. The next section reviews the literature about the outcomes and effectiveness of onboarding in different modalities, namely online and hybrid settings. The final section of the chapter provides a literature review of key constructs (i.e., perceived onboarding experience, locus of control, employee engagement, and work-related self-efficacy) and their relationships with each other and onboarding modality. In the following chapter, the research methods are shared, including a review of the population and sampling, instrumentation, and data analysis.

CHAPTER 3

RESEARCH METHODS

This multidimensional study was designed to investigate the relationship between the modalities of new employee onboarding and several variables: employees' perceived onboarding experience, locus of control, work engagement, and self-efficacy. A correlational survey research method was used in this study. Data were collected using an online self-paced survey questionnaire created and administered using Qualtrics and disseminated on social media sites, including LinkedIn, Facebook, and Twitter. Data were analyzed primarily using the statistical analysis software IBM SPSS, with one analysis conducted using the programming language R. In the subsequent sections of this chapter, an overview of the research methods for this study is presented, including descriptions of the research design, population and sampling, instrumentation, methods of data collection, and data analysis procedures.

Research Design

The purpose of this study was to determine the relationships between the modality of new employee onboarding (online, in-person, or hybrid) and several variables related to the employees' experiences as well as the relationships between these variables. Therefore, a quantitative correlational research method was used to determine whether and to what degree this relationship exists (Nardi, 2018). Correlational research explores the relationship between variables without manipulation of the variables. Correlational research is appropriate to investigate the relationships between the variables since the research questions do not require the use of experimental interventions (Fraenkel et al., 2019). Additionally, because the research questions focused on gathering data on recently onboarded employees, survey research designed in the form of a questionnaire was deemed fitting. Survey research is an appropriate method to

collect data from a large population and compare their responses regarding a set of variables (Fraenkel et al., 2019; Nardi, 2018). This survey study was approved by the Internal Review Board (IRB) at the University of North Texas; the IRB approval is presented in Appendix A, and the informed consent form is presented in Appendix B.

Population and Sample

This study was focused on the onboarding experiences of working corporate professionals. In the context of this study, a 'professional' was considered a person who is employed in a job that requires some sort of education, licensure, or certificate to obtain. Thus, the target population included those who have an associate's degree or further education; similarly, the survey was limited to those 20 years of age or older to better account for the time it takes for someone to earn an associate's degree, on average. Additionally, the survey was opened up exclusively to those who work in corporate settings. 'Corporate' in the context of this study means pertaining to private-sector companies or corporations that operate on a for-profit basis; eligible participants will work for privately owned or publicly traded corporations rather than serve in public-sector positions (i.e., government jobs) or non-profit positions. This eligibility requirement was intended to ensure that the onboarding experiences of the participants are comparable, as additional factors based on sector (such as additional onboarding requirements in government or public-sector jobs) might have skewed the comparison of experiences during new-employee training. Lastly, only participants who had been onboarded within 18 months prior to survey completion were considered for participation in this study. This was intended to ensure participants had a clear memory of their onboarding experiences. The target population was not otherwise limited by gender, racial or ethnic composition, years of corporate experience, job title, or location; instead, this study was intended to be broad research looking to identify

patterns as they relate to the modality of onboarding across multiple demographics of corporate employees.

Description of the Sample

The 58-item questionnaire was distributed online via LinkedIn, Facebook, and Twitter using the author's extensive network and LinkedIn's post promotion tools. Participants were requested to share the survey with colleagues and network connections to encourage a snowball sampling method. Snowball sampling entails the researcher reaching out to their network and asking those participants to share with their own network to grow the sample (Nardi, 2018). Snowball sampling is recognized as a viable sampling method for difficult-to-reach populations, such when the researcher does not have complete visibility into eligibility (Nardi, 2018). In previous research, LinkedIn and other social media sites have been successfully used as vehicles for snowball sampling (Baltar & Brunet, 2012; Kozlowski et al., 2021; Leighton et al., 2021). While snowball sampling is not truly random, using this method through social media sites can help ensure the target population is reached (especially since LinkedIn is a professional social media site), an appropriately sized sample is collected, and more varied points-of-view are collected versus convenience sampling, especially in the post-COVID-19 world (Leighton et al., 2021). No compensation was offered for the completion of the self-administered questionnaire.

Out of the 191 surveys that were submitted, 153 or 80.1% were considered complete or sufficiently complete and used in analysis. Incomplete surveys were those where less than 50% of the questions were answered or the participant indicated they were not eligible to participate in the study (i.e., the participant said they had not been onboarding in the previous 18 months); these 38 survey responses were discarded. Of the 153 survey responses used in the data analysis, 8 surveys were missing less than 50% of the responses. To ensure the missing data were

statistically random and would not skew the analysis, a missing values analysis with estimated

marginal (EM) means and data imputation was conducted. Little's MCAR test determines if the

data is missing completely at random and is a critical part of exploratory data analysis (Gemici et

al., 2012). The missing values analysis yielded a p-value for Little's (1988) MCAR of .977,

suggesting the missing data are random and follow the distribution of the overall data (Gemici et

al., 2012). The missing data were then replaced using EM means imputation.

<p style="text-align:center">Demographic Items</p>

Data were collected from participants on 4 demographic variables outside of the method

of onboarding for this study: age, gender, level of educational attainment, level of employment,

and industry. Participants were asked their age ranging from 20 to 70 using a multiple-choice

question with ranges grouped in 5-year increments (i.e., 20-24, 25-29, 30-34, etc.). Over half

(56.9%) of participants were under the age of 30, with the bulk of participants falling between 25

and 29 years of age (35.3%). Participants under 40 accounted for 86.9% of the sample. Gender

was a nominal variable with 4 options: male, female, nonbinary, and prefer to self-describe;

'prefer to self-describe' allowed participants the option to share their gender identity outside of a

binary. The majority of participants were female with a total of 97 (63.4%); 52 (34.0%) were

male, 3 (2.0%) were non-binary, and 1 (0.7%) self-described as a trans man. Participants were

also asked to select their level of educational attainment as a nominal variable using a multiple-

choice question with choices ranging from associate to bachelor, master, and doctorate levels of

education. Of the 153 participants, 152 reported their education level, with 76 (49.7%) indicating

they had a bachelor's degree, 68 (44.4%) with a master's, and 4 (2.6%) each for associate and

doctoral degrees. Additionally, participants were asked to specify their level of employment

(e.g., entry-level, managerial). Most participants were mid-level or entry-level employees, with

63 (41.2%) and 56 (36.6%) participants for each, respectively. Management at all levels made up 10.5% of participants. Lastly, a multiple-choice question for industry was provided to participants with an option to write in their own industry, allowing for the capture and analysis of data across different corporate industries. The open-ended responses for industry and gender were manually grouped and manually coded based on emergent patterns (Tracy, 2019). The distributions of the demographic questions are shown in Table 1.

Table 1

Sample Demographic Data: Age, Gender, Education, Job Level, and Industry

	Frequency	Percentage	Valid Percent	Cumulative Percent
20-24	33	21.6	21.6	21.6
25-29	54	35.3	35.3	56.9
30-34	30	19.6	19.6	76.5
35-39	16	10.5	10.5	86.9
40-44	7	4.6	4.6	91.5
45-49	4	2.6	2.6	94.1
50-54	5	3.3	3.3	97.4
55-59	1	0.7	0.7	98.0
60-64	3	2.0	2.0	100.0
Age Total	153	100.0	100.0	
Male	52	34.0	34.0	34.0
Female	97	63.4	63.4	97.4
Non-binary	3	2.0	2.0	99.3
Trans Man (Prefer to self-describe)	1	0.7	0.7	100.0
Gender Total	153	100.0	100.0	
Associate	4	2.6	2.6	2.6
Bachelor	76	49.7	50.0	52.6
Master	68	44.4	44.7	97.4
Doctorate	4	2.6	2.6	100.0
Missing	1	0.7		
Educational Level Total	152	99.3	100.0	
Entry-level employee	56	36.6	36.6	36.6
Mid-level employee	63	41.2	41.2	77.8
Senior-level employee	18	11.8	11.8	89.5
Team lead or supervisor	3	2.0	2.0	91.5
First-line manager	6	3.9	3.9	95.4

Middle manager, director, or vice president	6	3.9	3.9	99.3
Upper manager or C-suite	1	0.7	0.7	100.0
Employment Level Total	153	100.0	100.0	
Technology	62	40.5	40.5	40.5
Marketing/Advertising/Publishing	10	6.5	6.5	47
Finance/Insurance	15	9.8	9.8	56.8
Manufacturing	8	5.2	5.2	62
Real Estate & Housing	6	3.9	3.9	65.9
Safety/Security & Legal	4	2.6	2.6	68.5
Transportation	4	2.6	2.6	71.1
Hospitality	1	0.7	0.7	71.8
Engineering (Other)	2	1.3	1.3	73.1
Pharmaceuticals, Health, Beauty, and Biotechnology (Other)	8	5.2	5.2	78.3
Environmental Sciences, Mining, and Oil & Gas (Other)	4	2.6	2.6	80.9
Human Resources & Recruiting (Other)	4	2.6	2.6	83.5
Data, Statistics, & Research (Other)	3	2.1	2.1	85.6
Social Services (Other)	2	1.3	1.3	86.9
Education, Training, & EdTech (Other)	11	7.2	7.2	94.1
FMCG (Other)	2	1.3	1.3	95.4
Professional Services (Other)	2	1.3	1.3	96.7
Customer Service and Sales (Other)	2	1.3	1.3	98
Fashion (Other)	1	0.7	0.7	98.7
Policy and Public Affairs (Other)	2	1.3	1.3	100
Industry Total	153	100	100	

Instrumentation

The primary independent variable explicitly measured in this study was the modality of

onboarding, as in whether new employee training took place in an online, face-to-face, or hybrid

setting. This was measured in a single multiple-choice question as part of the demographics

portion of the survey, along with several demographic variables intended to provide a description

of the sample, such as age, gender, industry, employment level, and education level. The

dependent variables measured using this instrument were perceived onboarding experience,

locus of control, employee engagement, and work-related self-efficacy. All the non-demographic

items in this questionnaire were adapted from existing scales used in previous research studies.

These items and the studies from which they have been taken are presented in Table 2. The

survey instrument as it was presented to the participants is shared in Appendix C.

Table 2

Description of Constructs and Scales

Construct	Source of Items	Number of Items
Perceived Onboarding Experience	Gupta et al., 2018	20
Task Characteristic		7
Orientation Training		5
Leadership		4
Socialization		4
Work Locus of Control (WLCS)	Spector, 1988	16
Work-Related Self-Efficacy (OSES-6)	Rigotti et al., 2008	6
Employee Engagement (UWES-9)	Schaufeli et al., 2006	9
Total Items (not including demographics)		51

Measuring Onboarding Modality

      Modality of onboarding served as an independent variable within this study. This was

measured using 1 question in the demographics of the self-administered questionnaire. The

question asked participants to report if their new employee onboarding was conducted online, in-

person, or in a hybrid setting.

Measuring Perceived Onboarding Experience

      Perceived onboarding experience represented a dependent variable in this study.

Onboarding experience can be defined as the process through which new employees learn,

network, and set goals at the beginning of employment as they adjust to their new roles with the purpose of employees reaching maximum productivity and independence (Gupta et al., 2018). Participants' perceived onboarding experience was measured using a 20-item questionnaire on a 5-point Likert scale developed by Gupta et al. (2018) in their study. The items used to measure perceived onboarding experience included ones such as, "I knew where to go to get additional assistance on personnel matters, benefits, and paperwork following my first day on the job" and "The organization's mission and my role in achieving mission accomplishment have been reinforced throughout the orientation" (Gupta et al., 2018). In Gupta et al. (2018), a reliability score of .91 was reported; in this study, a reliability analysis yielded a Cronbach's alpha of .937.

Additionally, during its development, this instrument was divided into 4 main factors grounded in socialization resource theory (SRT), which posits that socialization resources are linked with new employees' adjustment and socialization, which can impact organizational outcomes (Gupta et al., 2018; Saks & Gruman, 2014; Saks & Gruman, 2018). These factors, which were determined using exploratory factor analysis, include: task characteristic, orientation training, leadership, and socialization (Gupta et al., 2018, p. 69). Definitions of these factors can be found in Chapter 1. This study used these 4 components to illustrate a more detailed picture of the new employee training experience as it relates to onboarding modality. In Gupta et al. (2018), no reliability scores were reported for these factors. In this study, reliability scores for each individual factor ranged from .775 to .874 (.841 for task characteristic, .796 for orientation training, .775 for leadership, and .874 for socialization).

Measuring Locus of Control

Locus of control, which represented a dependent variable in this study, is defined as "the perception of what causes reinforcement," such as a promotion, reward, or accomplishment

(Kormanik & Rocco, 2009). Those with an internal locus of control believe that reinforcement is based on their own behavior or qualities, while those with an external locus of control believe that reinforcement is due to luck, fate, or factors beyond one's own control (Kormanik & Rocco, 2009). Locus of control has been found to play a role in training motivation, onboarding experience, job satisfaction, and goal achievement (Gangai et al., 2016; Gupta et al., 2018; Ng et al., 2006; Peltokorpi et al., 2022; Phillips & Gully, 1997; Suherlan et al., 2017).

A widely used scale for measuring locus of control is Rotter's (1966) scale, a 29-item questionnaire. While the scale itself has been used in studies across many domains of research, the scale has several questions that do not have grounding in a workplace setting and are rather general. In fact, it has been noted that there is a need for discipline- or domain-specific scales to be developed to gain more robust insight into the role of and effects on locus of control in specific settings (Spector, 1988). A shorter form and workplace-focused instrument is needed to measure more directly the locus of control in the onboarding setting. Therefore, in this study, locus of control was measured using the Work Locus of Control Scale (WLCS), a 16-item measure of generalized locus of control in work settings developed by Spector (1988) on a 6-point Likert scale. The items provided in this instrument include those such as, "Promotions are a matter of good fortune" and "Most employees have more influence on their supervisors than they think they do" (Spector, 1988, p. 340). Reliability scores ranging between .75 and .85 were reported in a series of trials in Spector (1988). In this study, the WLCS had a Cronbach's alpha of .752.

Locus of control was analyzed as a moderating variable. A moderating variable is a variable that can strengthen, weaken, or otherwise affect the relationship between an independent variable and a dependent variable (Hefner, 2017). Several studies have explored the intervening

role of locus of control on the relationship between various workplace variable, including the relationship between communication and organizational citizenship (Gheorghe, 2019), onboarding and turnover intention (Gupta et al., 2018), job security and work performance (König et al., 2010), and stress and work outcomes (Conley & You, 2014). The data collected using Spector's (1988) WLCS was analyzed as a moderator between onboarding modality and perceived onboarding experience, employee engagement, and work-related self-efficacy.

Measuring Work-Related Self-Efficacy

Occupational self-efficacy was the final of 4 dependent variables measured in this study. It can be defined as a person's confidence in their ability to cope with or accomplish difficult tasks or problems (Bandura, 1977). Self-efficacy in the workplace has been found to relate to several variables, including job performance, employee satisfaction, organizational citizenship, and turnover intention (Judge & Bono, 2001; Ozyilmaz et al., 2018). In their study, Rigotti et al. (2008) developed the short-form Occupational Self-Efficacy Scale (OSES-6) from a previous instrument containing items from several different scales. This 6-question instrument, which focuses on self-efficacy in a workplace context, has been validated on a global scale across 5 different samples in 5 languages (Rigotti et al., 2008). The English version of this instrument was used and measured on a 7-point Likert scale. Items from this instrument include statements such as, "I can remain calm when facing difficulties in my job because I can rely on my abilities" and, "I feel prepared for most of the demands in my job" (Rigotti et al., 2018, p. 256).

Measuring Employee Engagement

Employee engagement served as a dependent variable in this research. It is defined as "a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Employee engagement has been found to relate to

various factors in the workplace, including turnover intention, organizational citizenship, and job performance (Bakker & Demerouti, 2008; Bakker et al., 2008; Knezović & Đilović, 2020). A widely used instrument to assess work engagement is the Utrecht Work Engagement Scale (UWES); however, research has shown that several items were unsound, and a shortened version with 9 items was developed and validated by Schaufeli, Bakker, and Salanova (2006). The items in this instrument include statements such as, "I find the work that I do full of meaning and purpose" and, "When I am working, I forget everything else around me" (Schaufeli et al., 2006, p. 714). This version, dubbed the UWES-9, was used for this study and measured on a 6-point Likert scale. While no reliability scores were reported in Schaufeli et al. (2006), reliability scores across a series of trials in Seppälä et al. (2008) were between .75 and .87. Reliability analysis in this study yielded a Cronbach's alpha of .922.

<div align="center">Reliability Analysis</div>

To determine the reliability of the scales used in this study, Cronbach's alpha values were calculated. Cronbach's alpha is the most common way to measure a scale's reliability (Fraenkel et al., 2019). Reliability refers to the consistency of values obtained using an instrument, as in "how consistent they are for each individual from one administration of an instrument to another" (Fraenkel et al., 2019, p. 149). Basically, a person should score the same if they completed the questionnaire at different times and under different conditions. It is important that the instruments are considered reliable to ensure the data are consistent. The reliability scores for all of the scales used in this study were between .752 and .937, within the acceptable range recommended by Nunnally (1978). The reliability scores for this study are reported in Table 3.

Validity of Scales

The validity of an instrument refers to the "appropriateness, correctness, meaningfulness, and usefulness of the specific inferences researchers make based on the data" collected (Fraenkel et al., 2019, p. 144). In other words, to be considered valid, an instrument measures what it claims to measure. The validity of each scale used to build the instruments of this study was assessed in previous studies (Gupta et al., 2018; Rigotti et al., 2008; Schaufeli et al., 2006; Spector, 1988). Descriptions of the validity of these scales are presented in this section.

Table 3

Cronbach's Alpha Values for all Scales

Construct	Source of Items	Number of Items	Cronbach's alpha
Perceived Onboarding Experience	Gupta et al., 2018	20	.937
Task Characteristic		7	.841
Orientation Training		5	.796
Leadership		4	.775
Socialization		4	.874
Work Locus of Control (WLCS)	Spector, 1988	16	.752
Work-Related Self-Efficacy (OSES-6)	Rigotti et al., 2008	6	.844
Employee Engagement (UWES-9)	Schaufeli et al., 2006	9	.922
Total Items (not including demographics)		51	

Validity of Perceived Onboarding Experience Scale

In the development of the perceived onboarding experience questionnaire, Gupta et al. (2018) vetted the instrument for content validity with a panel of researchers in the fields of

human resources and organizational behavioral psychology. Principal components exploratory factor analysis (EFA) with eigenvalues exceeding 1.0 was conducted and yielded 4 major factors. This 4-factor structure for this scale was used for the purpose of this study; these 4 factors were task characteristic, orientation training, leadership, and socialization (Gupta et al., 2018).

Validity of Locus of Control Scale

To gain domain-specific insight into locus of control, Spector's (1988) Work Locus of Control Scale (WLCS) was used. This instrument was validated in its original work through correlations with other meaningful variables from 6 samples (Spector, 1988). In these administrations, the WLCS was provided to a variety of participants across various environments, including to undergraduate students, department store employees, convenience store clerks and managers, mental health agency employees, and municipal managers (Spector, 1988). Across most of these samples, WLCS responses were significantly correlated with most other expected variables (Spector, 1988). While the WLCS is correlated with other measures of locus of control in general settings, the relationships between the responses and work-specific variables are "considerably stronger" than those found using the general scales, implying a more precise measure of work behavior (Spector, 1988, p. 339). This scale has also been used successfully and confirmed valid in a significant number of studies (Gheorghe, 2019; König, 2010; Ng et al., 2006; Suherlan et al., 2017; Tekeli & Özkoç, 2022).

Validity of Work-related Self-Efficacy Scale

In their effort to create an instrument that measures self-efficacy in a workplace context, Rigotti et al. (2008) conducted confirmatory factor analysis (CFA) across the 5 languages and samples to support the construct validity of the scale. Through their analyses, Rigotti et al.

(2008) validated the scale across several languages, as this instrument has been used and has been further validated in several languages in other research studies (Çetin & Aşkun, 2018; Domene, 2012; Hirschi, 2012; Park & Jung, 2015).

Validity of Employee Engagement Scale

In creating a more streamlined work engagement scale than the Utrecht Work Engagement Scale (UWES), Schaufeli et al. (2006) conducted a factor analysis using data from 27 studies across 10 different countries to determine the most characteristic item for each scale identified. From these, 2 factor structures were determined to have high fit indices: a 3-factor model and a 1-factor model. The identified 9 items, forming the UWES-9, were found to have acceptable psychometric properties for the instrument to be useful in organizational behavioral research (Schaufeli et al., 2006). In this dissertation research, the 1-factor model was used.

Factor Analysis

Factor analysis is a statistical analysis technique that is used to understand a set of variables. Factor analysis has 3 major applications, including clustering data into more manageable chunks, exploring how variables influence behavior, and confirming hypotheses about these influences (Brown & Moore, 2012; Merrifield, 1974). This technique is markedly useful in validating scales and instruments (Merrifield, 1974). In brief, "factor analysis helps researchers explore or confirm the relationships between survey items and identify the total number of dimensions represented on [a] survey" (Knekta et al., 2019). Factor analysis is a common and important technique in educational and organizational research (Brown & Moore, 2012; Knekta et al., 2019).

Two popular types of factor analysis include exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA is used to determine the appropriate number of factors

in an instrument, which is most useful during the earlier developmental stages of instrument formation (Brown & Moore, 2012). Basically, EFA is used to 'explore' the potential factors within a set of variables to determine underlying influences within the set. CFA, on the other hand, is used to 'confirm' these factor loadings; researchers provide the number of factors before the analysis, which determines the construct validity of an instrument (Brown & Moore, 2012; Knekta et al., 2019). In other words, CFA "verifies the number of underlying dimensions of the instrument (factors) and the pattern of item-factor relationships (factor loadings)" (Brown & Moore, 2012, 3).

EFA was not used in this study, as the common factors for each component of the instrument have already been determined in previous studies. Instead, CFA was used, as CFA is appropriate "when a researcher is using a preexisting survey that has an established structure with a similar population of participants," as is the case with the instruments used in this research (Knekta et al., 2019). In this study, CFA was used to confirm the factor structure of the scales that comprise the overall instrument. As prior studies used and validated these scales, there is an expected factor structure for each scale. The fit indices that were used to evaluate the output of the CFA include: chi-square, standardized root mean square residual (SRMR), root mean square error of approximation (RMSEA), the Tucker-Lewis index (TLI) and comparative fit index (CFI). While chi-square is widely considered the 'classic' goodness of fit index, it is recommended that researchers report each of the aforementioned fit indices as they provide more nuanced information about the model's fit (Brown & Moore, 2012; Roos & Bauldry, 2022). In this study, CFA was conducted using R (R Core Team, 2020), RStudio (2020), and the lavaan package (Rosseel, 2012).

The chi-square test is based on the idea that "the implied moment matrices perfectly reproduce the observed moment matrices" (Roos & Bauldry, 2022, 52). In other words, the chi-square test determines how well the actual data's observed patterns fit with the patterns implied by the model. Because of the impact of large sample sizes on the chi-square test, the formula

$$\frac{\chi^2}{df}$$

was used in this study to measure chi-square in relation to degrees of freedom (df) (Wheaton et al., 1977). A chi-square of 2702.554 and degrees of freedom of 1203 were calculated, leading to a ratio of 2.25. A ratio less than or equal to 2 is generally considered an indication of superior fit (Cole, 1987), meaning this model has an adequate fit. The SRMR index is functionally similar to the chi-square test because it is based on the idea of a perfect fit (Roos & Bauldry, 2022). The SRMR is calculated by averaging the difference between the predicted correlations and the observed correlations (Roos & Bauldry, 2022). This study yielded a SRMR of 0.105, which is indicative of decent fit. This index's output values are between 0.0 and 1.0, with smaller numbers, or those closer to 0.0, being adequate fit (Roos & Bauldry, 2022).

RMSEA, unlike chi-square and SRMR, considers approximate fit rather than perfect fit; simply, RMSEA assesses the extent to which a model is a reasonable fit within a population (Roos & Bauldry, 2022). The values taken in RMSEA are above zero, but the lower the value, the better the fit; values below 0.06 are indicative of good fit, those between 0.06 and 0.10 of adequate fit, and those above 0.10 of poor fit (Roos & Bauldry, 2022). In this study, RMSEA was calculated at 0.09, indicating adequate fit.

Both TLI and CFI are determined by comparing the fit of the model to the fit of a hypothesized model (Roos & Bauldry, 2022). Both indices take values between 0.0 and 1.0, and higher values (specifically those above .95) are indicative of good model fit (Roos & Bauldry,

2022). In this study, TLI and CFI yielded values of 0.644 and 0.664, respectively, not indicating

a strong fit. Overall, the CFA fit indices indicated a fair fit to the data. Table 4 presents the fit

indices for the sample data.

Table 4

Summary of CFA Fit Indices

χ2	df	χ2/df	SRMR	RMSEA	TLI	CFI
5734.846	1275	2.25	0.105	0.09	0.644	0.664

Data Analysis

To analyze the data in this study, various techniques were used. IBM SPSS Statistics

(Version 28) was used to both analyze and display analyzed data in this research (except for

confirmatory factor analysis, which was conducted using RStudio, and the confusion matrix,

which was visualized using Python). To measure the reliability of the scales, Cronbach's alpha

was calculated and compared to Nunnally's (1978) recommendations, which advise a value of

.70 as an acceptable reliability coefficient. Additionally, descriptive statistics such as means,

standard deviations, and ratios, were calculated to summarize the data collected.

One form of data analysis that was used in this study is multivariate analysis of variance

(MANOVA). MANOVA is generally used in situations in which there is a nominal independent

variable and 2 or more dependent variables (Warne, 2014). Versus using a series of ANOVA,

MANOVA can determine whether the independent variable is related to combinations of

dependent variables (Warne, 2014). When MANOVA yields an insignificant result, post-hoc

testing, such as descriptive discriminant analysis (DDA), is not an appropriate procedure (Smith

et al., 2019; Warne, 2014). MANOVA was utilized to determine which groups of participants (online versus hybrid versus in-person onboarding), if any, differed from each other in outcomes and why.

Additionally, a series of linear regression analyses was used in this study to measure how strong the relationship is among the variables. Linear correlation using the linear correlation coefficient, r, is an appropriate way to measure if a linear relationship exists between 2 variables (as well as in what direction and to what extent it is present) (Nardi, 2018). Correlational analysis using regression analysis was an appropriate data analysis method, as it determines and describes the degree to which variables are related (Fraenkel et al., 2012; Montgomery et al., 2021). In this case of this study, linear correlation explored the relationship between the independent variable (i.e., onboarding modality) and the dependent variables (i.e., perceived onboarding experience, locus of control, employee engagement work-related self-efficacy). Because the independent variable of onboarding modality was categorical, dummy variables were coded using SPSS. Moderation analysis was also used to determine the intervening effects of work locus of control on these relationships. Additionally, linear regression analysis assisted in determining the relationships perceived onboarding experience and work-related self-efficacy have with the outcome variable, employee engagement.

Because of the small sample size, bootstrapping was performed for the MANOVA and linear regression analyses. Bootstrapping is a resampling method that involves the generation of many datasets from a real sample dataset without making assumptions about the data (Bland & Altman, 2015). By bootstrapping several iterations of a dataset, a researcher can estimate confidence intervals and standard errors of a dataset without repeating the study with multiple samples (Bland & Altman, 2015). Because this study's sample was small (but not under 30) and

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random, bootstrapping was an appropriate method to explore the reliability and variability of the sample.

Summary

In this chapter, details regarding the methods that were used to explore the relationships between onboarding modality and various dependent variables (perceived onboarding experience, locus of control, employee engagement, and work-related self-efficacy) are provided. Information on the research design and methods for sampling and data collection are shared. Additionally, descriptions of the scales used in this study are presented, along with the methods for data analysis. In the following chapter, the results of the study are presented.

CHAPTER 4

RESULTS

The aim of this study was to investigate the relationships between onboarding modality, perceived onboarding experience, work locus of control, work-related self-efficacy, and employee engagement. Data were collected using social media from a sample of 153 participants who had undergone onboarding within the 18-month period prior to survey completion. Participants participated in an anonymous self-administered Qualtrics survey. This chapter outlines the results related to onboarding modality, perceived onboarding experience, locus of control, occupational self-efficacy, employee engagement.

First, a summary of the descriptive statistics, including means and standard deviations, are presented. The results of the analysis of the demographic information are then presented. Then, an overview of the correlation between the variables in this study is provided, along with correlation and confusion matrices. Next, the results of the MANOVA are provided. Then, the results for each of this study's 8 research questions are outlined. Finally, a summary of the results of this dissertation research are provided.

Descriptive Statistics

The means and standard deviations for all 4 scales (and the 4 subscales of perceived onboarding experience) are presented in Table 5. Participants gave the overall highest scores to the items measuring work-related self-efficacy. This scale was measured on a 7-point Likert-type scale with a mean of 5.75 and a standard deviation of 0.82. The lowest mean score was reported for the leadership subscale of perceived onboarding experience, with a mean of 3.84 and a standard deviation of 1.14. This variable was measured on a 5-point Likert-type scale.

Table 5

Summary of Means and Standard Deviations for All Variables

Variables	n	Mean	Standard Deviation
Perceived Onboarding Experience[1]	153	3.97	.99
Task Characteristic	153	3.90	1.08
Orientation Training	153	3.96	1.09
Leadership	153	3.84	1.14
Socialization	153	4.04	1.01
Work Locus of Control (WLCS)[2]	153	2.83	.77
Work-Related Self-Efficacy (OSES-6)[3]	153	5.75	.82
Employee Engagement (UWES-9)[4]	153	4.69	1.14

[1]Perceived onboarding experience was measured on a 5-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (5).
[2]Work locus of control was measured on a 6-point Likert scale from 'Disagree very much' (1) to 'Agree very much' (6).
[3]Work-related self-efficacy was measured on a 7-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (7).
[4]Employee engagement was measured on a 7-point Likert scale from 'Never' (0) to 'Always' (6).

Analysis of Demographic Correlation

Although not one of the research questions, linear regression analyses of demographic information collected, including age, gender, educational attainment, and employment level, was performed to determine what relationship, if any, these demographic items had on the dependent variables (perceived onboarding experience, work locus of control, work-related self-efficacy, and employee engagement). A correlation matrix is presented in Table 6, and an overview of the findings are presented in the following section.

Table 6

Linear Correlation Matrix for Demographic Variables

Variable	N	Mean	SD	Age	Gender				Education Level	Employment Level
					Male	Female	Non-binary	Trans man		
Perceived Onboarding Experience[1]	153	3.97	.99	-.232**	-.112	.083	.100	-.099	-.153**	-.260**
Work Locus of Control[2]	153	2.83	.77	-.199**	-.237**	.203**	.031	.123	-.011	-.116
Work-Related Self-Efficacy[3]	153	5.75	.82	.004	-.022	.013	.043	-.025	.028	.191**
Employee Engagement[4]	153	4.69	1.14	.178**	.122	-.135**	-.003	.094	.110	.123

Note: ** Correlation is significant at the .05 level (1-tailed)

[1]Perceived onboarding experience was measured on a 5-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (5). [2]Work locus of control was measured on a 6-point Likert scale from 'Disagree very much' (1) to 'Agree very much' (6). [3]Work-related self-efficacy was measured on a 7-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (7). [4]Employee engagement was measured on a 7-point Likert scale from 'Never' (0) to 'Always' (6).

Relationships between Age and Dependent Variables

Age was found to be negatively correlated with perceived onboarding experience and work locus of control, with linear correlational coefficients of -.232 and -.199, respectively. This was found to be significant at the $p < .05$ level. For onboarding experience, this meant that younger participants reported a more positive experience. For work locus of control, older participants had a more internal locus of control while younger participants reported a more external locus of control. Employee engagement also had a statistically significant relationship with age, with an r value of .178. The positive relationship indicated that older participants reported higher levels of engagement in the workplace. Since these 3 coefficients fell between the ±.10 and ±.29 range, the correlation is considered small (Cohen, 1992). Work-related self-efficacy was not significantly correlated with age.

Relationships between Gender and Dependent Variables

Gender was not found to have a correlational relationship with perceived onboarding experience or work-related self-efficacy. However, work locus of control was significantly related to gender, with r values of -.237 for males and .203 for females. The negative linear correlational coefficient for men suggests that males have more internal loci of control, while women have more external loci of control. Employee engagement also had a statistically significant relationship with gender, though only for females; this relationship had an r value of -.135, suggesting that women were less engaged at work than men. These values were all significant at the $p < .05$ level, and their sizes suggested small correlational relationships (Cohen, 1992). There was no significant relationship between any variables and gender for those who indicated they were non-binary (n = 3) or self-described their gender (n = 1). The participant who self-described their gender identified as a transgender man. The lack of correlational

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relationships could be due to the small number of participants reporting gender identities outside of a binary.

Relationships between Educational Attainment and Dependent Variables

Level of educational attainment was not significantly correlated with any variables besides perceived onboarding experience, where the linear correlational coefficient was $r = -.153$ and significant at the $p < .05$ level. This value, which was considered small (Cohen, 1992), suggests that those with more education had a less positive perceived experience during onboarding.

Relationships between Employment Level and Dependent Variables

Employment level was correlated with perceived onboarding experience and work-related self-efficacy at the $p < .05$ level, with r values of -.260 and .191, respectively. These relationships were considered small since their coefficient values fell between ±.10 and ±.29 (Cohen, 1992). The negative value for perceived onboarding experience suggests that those with more senior employment positions had less positive experiences during the onboarding process. However, employment level and age are directly and moderately related ($r = .485$, $p < .001$); this multicollinearity suggests the relationships between perceived onboarding experience and age or employment level require more research to ensure they are independently related. The positive value for work-related self-efficacy suggests that more senior employees or managers are more confident in their abilities at work than less senior employees. Employment level was not significantly related to work locus of control or employee engagement.

Correlation Matrix

The presence and robustness of the relationships between this study's variables were assessed using the linear correlation coefficient, r. The correlation matrix for all the variables is presented in Table 7. A visualization of these values in the form of a confusion matrix is provided in Figure 1. The linear correlation coefficient illustrates the strength and direction of the relationship between 2 variables, with coefficient values between ±.10 and ±.29 considered small, values between ±.30 and ±.49 considered moderate, and ±.50 and ±1 considered strong (Cohen, 1992). A positive r value indicates a direct correlational relationship, meaning when one variable increases, the other increases; an indirect correlation, indicated by negative r values, is when a small value for one variable is associated with a large value for the other. To ensure no violation of the assumptions of linearity, normality, and homoscedasticity, histograms and plots were generated during analysis. The smallest correlation that was found to be statistically significant was between the task characteristic subscale of perceived onboarding experience and in-person onboarding modality at r = -.138. The largest statistically significant correlation was that between employee engagement and the task characteristic subscale of perceived onboarding experience at r = .389. Only some of the correlations were significant at the p < .05 level, as indicated in the correlation and confusion matrices (see Table 7 and Figure 1).

Figure 1

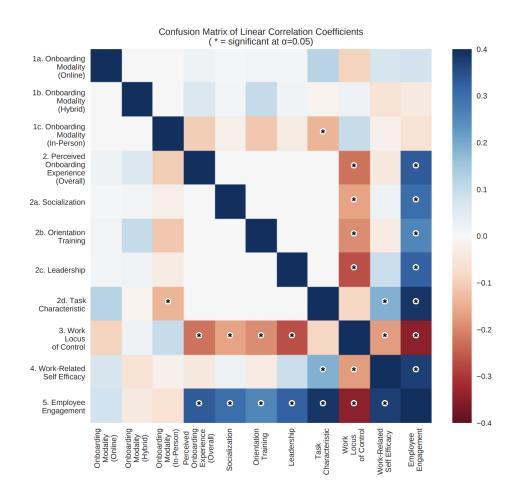*Confusion Matrix of Linear Correlation Coefficients*

Table 7

Linear Correlation Matrix for all Variables

Variable	N	Mean	SD	1a	1b	1c	2	2a	2b	2c	2d	3	4	5
1a. Onboarding Modality (Online)	153	--	--	--										
1b. Onboarding Modality (Hybrid)	153	--	--	--	--									
1c. Onboarding Modality (In-Person)	153	--	--	--	--	--								
2. Perceived Onboarding Experience[1]	153	3.97	.99	.019	.060	-.102	--							
2a. Socialization	153	3.90	1.08	.005	.014	-.024	--	--						
2b. Orientation Training	153	3.96	1.09	-.014	.102	-.111	--	--	--					
2c. Leadership	153	3.84	1.14	.010	.017	-.035	--	--	--	--				
2d. Task Characteristic	153	4.04	1.01	.119	-.015	-.138**	--	--	--	--	--			
3. Work Locus of Control[2]	153	2.83	.77	-.093	.020	.098	-.223**	-.165**	-.192**	-.266**	-.087	--		
4. Work-Related Self-Efficacy[3]	153	5.75	.82	.074	-.060	-.021	.046	.023	-.032	.093	.190**	-.175**	--	
5. Employee Engagement[4]	153	4.69	1.14	.083	-.040	-.060	.334**	.301**	.259**	.324**	.389**	-.345**	.373**	--

Note: ** Correlation is significant at the .05 level (1-tailed)

[1]Perceived onboarding experience was measured on a 5-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (5). [2]Work locus of control was measured on a 6-point Likert scale from 'Disagree very much' (1) to 'Agree very much' (6). [3]Work-related self-efficacy was measured on a 7-point Likert scale from 'Strongly disagree' (1) to 'Strongly agree' (7). [4]Employee engagement was measured on a 7-point Likert scale from 'Never' (0) to 'Always' (6).

MANOVA

MANOVA was used in this study to evaluate the differences in the dependent variables between the onboarding groups. The results of the MANOVA are presented in Table 8. The MANOVA yielded a Wilk's Λ of .675 for this model. Based on these results, there was not a statistically significant difference in the outcomes (perceived onboarding experience and its subscales, work locus of control, work-related self-efficacy, and employee engagement) based on the onboarding modality used. Because MANOVA yielded insignificant findings, post-hoc testing, such as descriptive discriminant analysis (DDA) was not performed.

Table 8

Between-Subject Test Results for Onboarding Modality

Dependent Variable	df	Mean Square	F	Sig.	Partial Eta Squared
Perceived Onboarding Experience	2	.830	.850	.430	.011
Task Characteristic	2	.054	.046	.955	.001
Orientation Training	2	1.525	1.293	.277	.017
Leadership	2	.124	.095	.910	.001
Socialization	2	1.820	1.795	.170	.023
Work Locus of Control	2	.574	.971	.381	.013
Work-Related Self-Efficacy	2	.285	.573	.565	.008
Employee Engagement	2	.744	.420	.657	.006

Results for Research Questions

In the following section, results for each of the research questions are reported. The 8 research questions that were examined in this dissertation were:

Q1.   What is the relationship between onboarding modality and employees' perceived onboarding experience?

Q2.   What is the relationship between onboarding modality and employees' locus of control?

Q3.   What is the relationship between onboarding modality and employees' work-related self-efficacy?

Q4.   What is the relationship between onboarding modality and employees' engagement?

Q5.   How is perceived onboarding experience related to employee engagement?

Q6.   How is work locus of control related to employee engagement?

Q7.   How is work-related self-efficacy related to employee engagement?

Q8.   How does locus of control moderate the relationships between onboarding modality and perceived onboarding experience, self-efficacy, and employee engagement?

Results for Research Question 1

Research Question 1 was intended to examine the relationship between onboarding modality and an employee's perceived onboarding experience. This was investigated using linear regression analysis and reported using linear correlation coefficients. The dummy variables for each category of onboarding modality were correlated with the overall perceived onboarding experience scale and each of the 4 subscales to determine the relationship between each. The

results for the linear regression analysis between onboarding modality and each scale for perceived onboarding experience are outlined below.

Onboarding Modality and Overall Perceived Onboarding Experience

The values of the linear correlational coefficients between each onboarding modality and overall perceived onboarding experience were $r = .019$, $.060$, and $-.102$ for online, hybrid, and in-person, respectively. While the r values for both online and hybrid onboarding were both positive, that of in-person onboarding was negative, meaning that perceived onboarding experience was slightly less positive for those who were onboarding in-person. However, none of these values were found to be statistically significant at the $p < .05$ level. This means that there was no correlational relationship between onboarding modality and overall perceived quality of the new employee's onboarding experience.

Onboarding Modality and Socialization

Similarly, statistically insignificant r values were found for the relationship between onboarding modality and the socialization subscale of perceived onboarding experience. For the relationship between socialization and online, hybrid, and in-person onboarding, the linear correlational coefficients had values of $r = .005$, $.014$, and $-.024$, respectively. Once again, the negative value for the coefficient for in-person onboarding illustrated a slightly lower onboarding experience related to socialization for those onboarding in-person. As is true with the overall scale, these r values were not statistically significant at the $p < .05$ level, indicating no significant relationship between onboarding modality and the forging of interpersonal relationships with colleagues.

Onboarding Modality and Orientation Training

The linear correlational coefficients between the orientation training subscale of perceived onboarding experience and onboarding modality were $r = -.014$ for online, $r = .102$ for hybrid, and $r = -.111$ for in-person. The negative r values for online and in-person indicated that those who were onboarded using these modalities perceived the effectiveness of their new employee training to be lower than that for those onboarded using hybrid methods. However, these values, again, were statistically insignificant at the $p < .05$ level, meaning there is no correlation between the modality of onboarding and the perceived quality of orientation training.

Onboarding Modality and Leadership

The values of the linear correlational coefficients between each onboarding modality and the leadership subscale of perceived onboarding experience were $r = .010, .017,$ and $-.035$ for online, hybrid, and in-person, respectively. The r value for leadership was negative, once again indicating lower scores for the newcomers' relationships with their managers for those onboarding in-person. Regardless, as was the case with the overall scale and the socialization and orientation training subscales, these r values were found to be statistically insignificant at the $p < .05$ level, indicating no statistical correlational relationship between onboarding modality and the leadership construct of perceived onboarding experience.

Onboarding Modality and Task Characteristic

The linear correlational coefficients between the onboarding modality and the task characteristic subscale of perceived onboarding experience were $r = .119$ for online, $r = -.015$ for hybrid, and $r = -.138$ for in-person. The linear correlational coefficient between the in-person onboarding method and task characteristic was the only statistically significant value for all perceived onboarding experience scales and subscales, with a significance value of $p = .044$.

With an r value of -.138, this relationship was considered small or weak (Cohen, 1992). The negative value indicated that participants who were onboarded in-person reported fewer positive qualities of the tasks performed during new employee training, like task significance and variety, autonomy, and performance feedback. While the r value for hybrid onboarding was also negative, it was not statistically significant at the $p < .05$ level.

Results for Research Question 2

Research Question 2 aimed to determine what kind of relationship, if any, exists between onboarding modality and an individual's work locus of control. The values of the linear correlational coefficients between each modality and locus of control were r = -.093, .020, and .098 for online, hybrid, and in-person, respectively. The negative r value for online onboarding indicated a more reportedly internal locus of control, while positive r values were indicative of a more external locus of control for participants who were onboarded using hybrid and in-person methods. However, these values were found to be statistically insignificant at the $p < .05$ level. This means that there was no correlation between onboarding modality and participants' work locus of control.

Results for Research Question 3

The purpose of Research Question 3 was to examine what relationship, if any, exists between onboarding modality and work-related self-efficacy. Using linear correlational analysis, linear correlational coefficients between onboarding modality and self-efficacy were calculated. The values of these coefficients were r = .074 for online, r = -.060 for hybrid, and r = -.021 for in-person. The negative r values for hybrid and in-person indicated that those onboarded using those methods had less confidence in their ability to cope with or accomplish difficult tasks or problems at work. Still, these values were statistically insignificant at the $p < .05$ level, meaning

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that no correlational relationship between onboarding modality and occupational self-efficacy was found.

Results for Research Question 4

Research Question 4 aimed to determine how onboarding modality was related to employee engagement. Linear regression analysis was conducted and yielded r values of .154, -.040, and -.060 for online, hybrid, and in-person onboarding, respectively. The negative r values for the hybrid and in-person modalities indicated that participants were less engaged at work when onboarded with these methods. However, there was not found to be a statistically significant correlational relationship between onboarding modality and employee engagement, as these values were not significant at the $p < .05$ level.

Results for Research Question 5

The aim of Research Question 5 was to explore the relationship between perceived onboarding experience and employee engagement, which was examined using linear regression analysis. For overall perceived onboarding experience, a linear correlational coefficient of $r = .334$ was calculated. For the relationship between employee engagement and each subscale of perceived onboarding experience, the r values were .301 for socialization, .259 for orientation training, .324 for leadership, and .389 for task characteristic. All these r values were found to be significant at not only the $p < .05$ level but also the $p < .01$ level. The linear correlational coefficients were all between .30 and .49, indicating a moderate positive relationship; the only exception was for orientation training, where an $r = .259$ indicated a smaller relationship (Cohen, 1992). All the coefficients were positive, meaning that higher self-reported scores for all facets of perceived onboarding experience were correlated with higher employee engagement.

Results for Research Question 6

Research Question 6 explored the relationship between work locus of control and employee engagement using linear regression analysis. The linear correlational coefficient for this relationship was r = -.345, which was found to be statistically significant at both the p < .05 and p < .01 levels. The size of the r value indicates a moderate correlational relationship (Cohen, 1992). Lower values of work locus of control represent a more internal locus of control, while higher values represent an external locus of control. Because of this, the negative r value indicates that a more internal locus of control is correlated with higher employee engagement.

Results for Research Question 7

The purpose of Research Question 7 was to determine how work-related self-efficacy was related to employee engagement. The linear correlational coefficient of this relationship was r = .373, representing a moderate relationship (Cohen, 1992). This value was statistically significant at both the p < .05 and p < .01 levels. The positive correlational coefficient represents a direct relationship, meaning that higher occupational self-efficacy (or self-confidence at work) is correlated with higher levels of employee engagement.

Results for Research Question 8

The last research question of this study was concerned with the intervening role locus of control had on the relationships between onboarding modality and the remaining dependent variables (perceived onboarding experience, work-related self-efficacy, and employee engagement). Moderation analysis was conducted to determine what role, if any, work locus of control played in these relationships. The results for this research question are presented in Table 9 and outlined in the following section.

Table 9

Moderation Analysis Results for Work Locus of Control as a Moderator

Dependent Variable	R Square without Moderator	R Square with Moderator	R Square Change	Sig.
Perceived Onboarding Experience	.011	.058	.047	.007
Work-Related Self-Efficacy	.006	.034	.029	.036
Employee Engagement	.008	.122	.114	<.001

Moderation Between Onboarding Modality and Perceived Onboarding Experience

While onboarding modality did not have a statistically significant correlation with overall perceived onboarding experience, work locus of control did improve the model's prediction significantly at the $p < .01$ level. However, work locus of control was significantly correlated with perceived onboarding experience itself, with a linear correlation coefficient of $r = -.223$. This means that a more internal locus of control was related to a more positive perceived onboarding experience, both within and outside of the relationship with onboarding modality. The correlational relationship between work locus of control and onboarding experience may account for the intervening role locus of control plays on the relationship between onboarding modality and perceived onboarding experience.

Moderation Between Onboarding Modality and Work-Related Self-Efficacy

The moderating role of locus of control on the relationship between onboarding modality and work-related self-efficacy was significant at the $p < .05$ level, meaning that locus of control

improves onboarding modality's value as a predictor of occupational self-efficacy. However, onboarding modality alone did not have a statistically significant correlational relationship with work-related self-efficacy. Additionally, work locus of control was significantly related to occupational self-efficacy, with an r value of -.175. The relationship between these 2 variables seemed to account for locus of control's intervening role between modality and self-efficacy.

Moderation Between Onboarding Modality and Employee Engagement

Despite the statistically insignificant relationship between onboarding modality and employee engagement, work locus of control had a very statistically significant (p < .001) intervening role. This means that work locus of control significantly improved the power of onboarding modality to predict employee engagement. However, locus of control had a moderate (r = -.345) correlational relationship with employee engagement, meaning the intervention may be due to the correlation between locus of control and engagement.

<center>Summary</center>

To answer the 8 research questions in this study, several statistical analyses were conducted, including linear regression analysis and MANOVA. Descriptive statistics were calculated to summarize the data as well as to assess each scale's central tendencies. Linear correlational analyses were conducted to determine the impact of age, gender, level of educational attainment, and employment level on the dependent variables. Age was negatively correlated with perceived onboarding experience and work locus of control and positively correlated with engagement, meaning older participants reported less positive experiences in onboarding, internal loci of control, and higher levels of engagement at work. It was also found that males' loci of control were more internal, while those of females were more external. Additionally, females reported significantly lower levels of employee engagement. Those with

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more education and more senior positions had more negative perceived onboarding experiences, while those with higher-level employment had higher work-related self-efficacy.

Overall, onboarding modality was not found to be a significant predictor of any of the 4 dependent variables (perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement). The only exception was the task characteristic subscale of perceived onboarding experience where in-person onboarding modality had a small and negative ($r = -.138$, $p = .044$) relationship to the participants' perception of the quality of the tasks performed during onboarding. The MANOVA also led to a null result, meaning there was no statistically significant difference in the dependent variables across onboarding modalities. Because of the null result for MANOVA, no post-hoc testing, such as DDA, was conducted.

When it comes to employee engagement's relationship with onboarding experience, locus of control, and work-related self-efficacy, all relationships were statistically significant at the $p <$ .01 level. Employee engagement had a moderately sized and positive relationship with perceived onboarding experience, all its subscales, and work-related self-efficacy. For work locus of control, the relationship was moderate yet negative ($r = -.345$), indicating that a more internal locus of control was correlated with higher levels of engagement in the workplace.

Moderation analysis was also performed to determine how work locus of control impacted the relationships between onboarding modality and the other 3 dependent variables (perceived onboarding experience, occupational self-efficacy, and employee engagement.) Work locus of control had a statistically significant impact on onboarding modality's strength as a predictor, despite the insignificant correlation between onboarding modality and the dependent variables.

In the chapter that follows, a discussion of these results is presented, along with implications for research and practice as well as recommendations for future studies.

CHAPTER 5

DISCUSSION

A summary of this dissertation study is presented in this chapter. Conclusions are also drawn based on the study's results and situated within the context of previous research. Additionally, the potential implications for research and practice are presented, along with recommendations for onboarding practitioners and stakeholders alike. Lastly, the limitations of this dissertation study are presented alongside recommendations for future research to build off this study.

Summary

The purpose of this study was to determine how the modality of onboarding is related to several facets of employee experience, specifically perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement. Additionally, this research aimed to explore how onboarding experience, locus of control, and work-related self-efficacy correlated to work engagement. Further, this research examined the intervening role work locus of control played between onboarding modality and perceived onboarding experience, self-efficacy, and employee engagement. To accomplish these aims, a self-administered survey hosted on Qualtrics was shared via social media (LinkedIn, Facebook, and Twitter) to gather the perspectives of corporate employees aged 20 years or older with an associate degree or higher who had been onboarded within the previous 18 months.

The survey received 153 completed responses. The participants were primarily under 30 years of age (56.9%), had a bachelor and/or master's degree (94.8%), and were entry- or mid-level employees (77.8%). Most participants self-identified as female (63.4%), while 34% of participants were male, 2% were non-binary, and 0.7% self-described as a transgender man. The

technology industry was the most represented industry (40.5%) while 19 other industries made up the remaining percentage of responses.

The main data analysis techniques used to understand the data collected were CFA, linear regression analysis, and MANOVA. The CFA technique was used to confirm the validity of the constructs of the scales and to assess the overall fit of the sample data to the proposed model. A series of linear regression analyses was conducted to analyze the relationships between onboarding modality and each construct as well as the ways in which employee engagement is related to the 3 other variables. Moderation analysis was also performed with the linear regression to determine what impact, if any, work locus of control had on the relationships between onboarding modality and perceived onboarding experience, self-efficacy, and engagement. From these analyses, the linear correlational coefficient r was used to determine the presence and strength of these relationships. MANOVA was utilized to determine whether outcomes differed across each group of participants based on onboarding modality. A discussion of the findings from these analyses are presented in the following section.

Discussion

In the following paragraphs, a discussion of the findings of the study is outlined. First, a discussion of the research findings related to demographic information is presented. Then, a review of the research outcomes as they relate to Research Questions 1 through 4 are provided, followed by Research Questions 5 through 7, then Research Question 8.

Demographic Attributes and Employee Experiences and Attributes

While not a research question in this study, linear regression analysis was performed to determine how the experiences during onboarding different among groups of individuals based on age, gender, level of educational attainment, and employment level. For onboarding

experience, younger participants had more positive onboarding experiences than their older

counterparts (r = -.232); a negative relationship with onboarding experience was also found for

education level (r = -.153) and employment level (r = -.260). While not a pattern found in other

research, it is hypothesized that this is due to different expectations and frames of reference

based on age, meaning older, more educated, and more senior employees had higher expectations

about what onboarding should be like. In fact, a previous study found that younger employees

may have problems with onboarding due to a lack of understanding of corporate culture (Deal &

Levenson, 2021), findings which are contrary to those of this study. This thread should be

continued to be studied to determine exactly why the experience of newcomers during

onboarding differs significantly due to age, education attainment, and/or education level.

A significant negative correlation (r = -.199) with age was also found for work locus of

control, with more internal loci of control being reported for older participants. Previous research

has found that older employees tend to have more internal loci of control (Knoop, 1981; Siu et

al., 2001). In this study, gender was significantly correlated with work locus of control, with men

reporting more internal loci of control (r = -.237) as compared to women (r = .203). The research

is inconclusive, with some studies suggesting men tend to have more internal loci of control

(Sherman et al., 1997), others suggesting women do in some situations (Gomberg, 1994; Obitz &

Swanson, 1976), and others suggesting there is no significant difference (Karkoulian et al., 2016;

Muhonen, & Torkelson, 2004). More research should be conducted to explore if gender makes a

difference on locus of control in the workplace, especially when it comes to individuals not on

the gender binary, and how this difference impacts employee outcomes.

In his study, work-related self-efficacy was only correlated to employment level, with a r

value of .191. This positive relationship implies that those in more senior or higher-level

positions have more self-confidence when it comes to their performance at work. Limited research has yielded similar findings (Knoop, 1981), so research is needed to replicate this finding and determine how these results impact employees in an onboarding setting.

Lastly, employee engagement was found to be positively correlated to age (r = .178), with older employees having higher employee engagement. These findings are consistent with previous research (Douglas & Roberts, 2020; Kordbacheh et al., 2014). More studies should focus on how this difference in engagement based on age could impact engagement in an onboarding setting. Additionally, employee engagement was found to be related to gender, but only with females, where a negative relationship (r = -.135) was found. This finding is not directly supported by literature (Hameduddin & Lee, 2022; Khodakarami & Dirani, 2020), indicating more research should be conducted to learn more about gender's impact on engagement in the workplace.

Impact of Onboarding Modality on Employee Experiences

To determine the relationship between the modality of onboarding and this study's dependent variables (perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement), linear regression analysis was conducted. As presented in the correlation and confusion matrices, onboarding modality was not found to be statistically significantly correlated with any of the variables studied. The only exception to this is in person onboarding's correlational relationship with the task characteristic subscale of perceived onboarding experience (r = -.138). While this relationship is considered small (Cohen, 1992), its negative value does have interesting implications: those onboarded in-person had slightly more negative experiences with task characteristics than their online or hybrid counterparts. Task characteristics, according to Gupta et al. (2018), include job resources that contribute to

newcomers' attitude, behavior, and work outcomes during the onboarding process. These include task variety, task significance, performance feedback, and autonomy (Gupta et al., 2018). The higher scores for the task characteristic subscale for those online and hybrid may potentially be due to increased autonomy in remote work settings (Charalampous et al., 2019). More research may be needed to determine where exactly the differences lie when it comes to task characteristics.

The null results for linear regression analysis of the relationship between onboarding and the remaining scales were supported by the results of the MANOVA, which showed no significant differences between the onboarding groups. This implies that, when it comes to perceived quality of onboarding, work-related locus of control, occupational self-efficacy, and work engagement, the modality through which onboarding occurs will not significantly change these outcomes. Interestingly, much research exists that posits that online onboarding can be ineffective, primarily due to issues with socialization among newcomers and colleagues (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021; Zajac et al., 2021). However, the socialization subscale for perceived onboarding experience was not significantly related to onboarding modality.

One previous study that directly compared new-hire experiences with online onboarding found that those who were onboarded remotely were dissatisfied with their onboarding experience, with those onboarding in-person reporting better experiences (Yadav et al., 2020). However, that study found that those who had previous experience with remote onboarding were significantly less displeased with their new-hire training experience than those who had never remotely onboarded (Yadav et al., 2020). The Yadav et al. (2020) study was conducted relatively

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soon after the start of the COVID-19 pandemic, and with the emergent shift to remote work due to COVID-19 (Parker et al., 2022; Scott et al., 2022), it is certainly possible that many participants had previously attended remote onboarding. Their experience with online onboarding due to the pandemic could account for the lack of differences in experience between remote, hybrid, and in-person onboarding populations. Further research that includes prior experience with remote onboarding or work could shed light on this finding.

Employee Engagement's Relationships with Employee Experiences and Attributes

Linear regression analysis was conducted to determine the presence and strength of the relationships employee engagement had with perceived onboarding experience, work locus of control, and occupational self-efficacy. As shown in the correlation and confusion matrices, employee engagement had a small to moderate relationship with all of these variables.

For perceived onboarding experience, a positive relationship existed between employee engagement and the overall scale and its subscales, with r values ranging from .259 to .389. The positive relationship means that a better onboarding experience was related to higher levels of employee engagement, which is supported by previous research (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Petrilli et al., 2022; Saks & Gruman, 2018). This is likely due to the notion that positive relationships with colleagues (socialization) and management (leadership), task prevalence, autonomy and feedback (task characteristics), and effective new-hire training (orientation training) can lead to improved employee motivation and engagement (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Mahmood et al., 2022; Petrilli et al., 2022; Saks & Gruman, 2018). Additionally, the highest r value (r = .389) was that between the leadership subscale and employee engagement, illustrating that more research may be needed to fully

understand the relationship between leadership behavior during the onboarding process and an employee's level of engagement at work.

Work locus of control had a moderate and negative relationship with employee engagement, with a linear correlational coefficient of r = -.345. In this study, a lower score for work locus of control is indicative of a more internal locus of control. Those with internal loci of control might believe that promotions are earned through hard work, while those with external loci of control may believe promotions are awarded through luck or connections (Kormanik & Rocco, 2009). The negative relationship with employee engagement illustrates that more internal loci of control was correlated with higher levels of employee engagement. This mirrors results found in previous research studies (Cascio et al., 2013; Drennan et al., 2005; Hsia et al., 2014).

Lastly, employee engagement was positively correlated with work-related self-efficacy (r = .373). This meant that higher confidence in one's ability to cope with difficult problems at work was related to higher levels of engagement in the workplace. This finding is consistent with those found in previous research (Albrecht & Marty, 2020; Bakker & Demerouti, 2008; Bakker et al., 2008; Hirschi, 2012; Luhans & Peterson, 2002; Saks & Gruman, 2014). This emphasizes a potential need for onboarding programs to instill confidence in workers to improve employee's engagement levels.

Work Locus of Control's Intervening Role on Impact of Onboarding Modality

Despite onboarding modality not being a statistically sound predictor of perceived onboarding experience, work-related self-efficacy, and employee engagement, work locus of control improved the model's ability to predict these variables. Moderation analysis found that work locus of control moderated the relationship between onboarding modality and perceived onboarding experience at the p < .001 level. This was also true for the relationship between

onboarding modality and employee engagement. For the relationship between onboarding

modality and work-related self-efficacy, locus of control's intervening role was significant at the

$p < .05$ level. While no research explored the moderating role of work locus of control when it

comes to the modality of onboarding, previous research is supported by this study when it comes

to locus of control's impact on relationships tied to perceived onboarding experience and self-

efficacy (Gupta et al., 2018).

Additionally, work locus of control had a significant negative relationship with these 3

variables ($r = -.223$ for onboarding experience, $r = -.175$ for occupational self-efficacy, and $r = -.345$ for engagement). These negative relationships indicate that more internal loci of control are

correlated with higher levels for each variable, findings which support previous studies (Cascio

et al., 2013; Drennan et al., 2005; Gupta et al., 2018; Hsia et al., 2014). These correlations may

partially account for the intervening role work locus of control plays on the relationships

between onboarding modality and perceived onboarding experience, self-efficacy, and work

engagement. Regardless, this finding highlights a potential opportunity in onboarding programs

to consider personal attributes of an individual to best tailor programs to each newcomer.

Socialization Resource Theory and Digital Onboarding Conceptual Framework

Saks and Gruman's (2012) Socialization resource theory and Ziden and Joo's (2020)

digital onboarding conceptual framework served as the theoretical framework underpinning the

design and purpose of this study. SRT posits that socialization is essential to the engagement,

success, and retention of employees in their first year of employment (Saks & Gruman, 2012).

The results of this study supported this notion, as the socialization subscale was negatively

correlated with locus of control and positively related to employee engagement. Additionally,

this study explored perceived onboarding experience and its factors (task characteristic,

orientation training, leadership, and socialization,) which themselves were grounded in SRT (Gupta et al., 2018; Saks & Gruman, 2012). This study aimed to determine the relationship to the onboarding modality of these 4 factors of SRT within the overall onboarding experience. Onboarding experience and most of its subscales were not related to onboarding modality, indicating that modality does not impact the effectiveness of onboarding. The one exception to this was task characteristic, which was lower for in-person onboarding; this emphasizes the need for onboarding programs to ensure all onboarding activities relevant and have perceived use. Further, this study explored the relationships between self-efficacy and method of onboarding, since, according to Saks and Gruman (2018), "training is a key predictor of newcomers' self-efficacy" (p. 26). However, the results of this study found there was no significant difference in self-efficacy across modality, indicating that factors of onboarding outside of modality may be more critical to predicting work-related self-efficacy. Lastly, this research explored the relationship between onboarding method and employee engagement and thus the indirect relationship between onboarding modality and work outcomes (Saks & Gruman, 2012; Saks & Gruman, 2018). It was found that onboarding modality was not a significant predictor of employee engagement, meaning modality may not impact work outcomes through engagement. This means that other aspects of onboarding besides modality, are more to engagement, socialization, and other outcomes.

The DOCF posits that the success of a digital onboarding program is largely grounded in several factors, including perceived ease of use (impacted by the design of the program), expected usefulness of the program, organizational support, and individuals' work-related self-efficacy (Ziden & Joo, 2020). This research aimed to explore the relationship between onboarding modality and employee outcomes, as the DOCF focuses on how properly

implemented online onboarding can improve employee engagement. However, the results of this study found that there was no difference in employee engagement between onboarding modalities. Additionally, Ziden and Joo's (2020) theory explores self-efficacy's impact on the online onboarding experience. However, this study found that there was no significant difference in self-efficacy across onboarding modalities. The only difference between onboarding modalities when it came to employee outcomes was lower scores for task characteristic in in-person settings.

Implications for Research

The findings of this study have implications for researchers in the field of learning technologies as well as for researchers in human resource development (HRD), organizational psychology, and corporate education. A unique finding of this research is that onboarding modality does not significantly impact the experiences and perspectives of new hires. While previous research has posited that online onboarding can hinder the experiences of newcomers through issues with socialization (Bankins et al., 2022; Carlos & Muralles, 2021; Deal & Levenson, 2021; Hemphill & Begel, 2011; Jeske & Olson, 2021; Martyniuk et al., 2021; Moe et al., 2020; Petrilli et al., 2022; Rodeghero et al., 2021), informal learning (Bankins et al., 2022; Zajac et al., 2022), and communication tools (Moe et al., 2020), these findings were not replicated in this study. With the very limited research surrounding hybrid onboarding (Cummings et al., 2015; Deal & Levenson, 2021), this study presents an interesting finding that hybrid onboarding does not differ in outcomes related to perceived onboarding experience, work locus of control, work-related self-efficacy, and employee engagement. To my knowledge, the only other study other than the present one that directly compared employee outcomes across onboarding modality was that of Yadav et al. (2020). This study fills a major gap in the literature

in the fields of learning technology and HRD as it relates to specific differences across onboarding modalities, opening the door for future exploration of how to potentially improve onboarding using technology.

There is an extensive body of research exists surrounding employee engagement as it relates to perceived onboarding experience (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Petrilli et al., 2022; Saks & Gruman, 2018), work-related self-efficacy ((Albrecht & Marty, 2020; Bakker & Demerouti, 2008; Bakker et al., 2008; Hirschi, 2012; Luhans & Peterson, 2002; Saks & Gruman, 2014), and work locus of control (Cascio et al., 2013; Drennan et al., 2005; Hsia et al., 2014). This study supported previous research that employee engagement is positively correlated with onboarding experience and work-related self-efficacy and negatively related to locus of control. The findings of this study contribute to this literature in the field of learning technologies, HRD, and organizational psychology, helping to paint a clear picture of employee engagement's relationship to other characteristics and experiences of employees.

Work locus of control has been found in previous research to mediate the relationships of other workplace variables, such as stress and work outcomes (Conley & You, 2014), job insecurity and performance (König et al., 2010), and communication and organizational citizenship (Gheorghe, 2019). Overall, however, limited research exists exploring this intervening role in the context of onboarding (Gupta et al., 2018), and to my knowledge, no research has explored how locus of control moderates the relationships between onboarding modality and employee outcomes. While this study did not find a relationship between onboarding modality and the scales studied (perceived onboarding experience, occupational self-efficacy, and employee engagement), it did find that work locus of control significantly moderated this relationship. This research fills the gap in the literature related to locus of

control's intervening relationship on onboarding modality's strength as a predictor of other values. It also opens the door to further research on onboarding modality's impact on other outcomes and locus of control's role as a moderator in the fields of learning technology, organizational psychology, and HRD.

This study explored how demographic data related to several variables. Perceived onboarding experience's negative relationship with age, employment level, and level of educational attainment contradicts the little evidence presented in existing literature (Deal & Levenson, 2021). Still, this provides foundational knowledge for continued research into how age and background impact one's experience in onboarding, especially in a post-COVID-19 world. Additionally, locus of control was found to have a negative relationship with age, meaning those who were older reported more internal loci of control, and men were also found to have more internal loci of control as compared to women. While locus of control's relationship with age supports previous research (Knoop, 1981; Siu et al., 2001), the literature is inconsistent regarding locus of control and gender (Gomberg, 1994; Karkoulian et al., 2016; Muhonen, & Torkelson, 2004; Obitz & Swanson, 1976; Sherman et al., 1997). This study contributes to the body of literature surrounding differences in locus of control among demographic groups and emphasizes the need for continued study on exactly how these groups differ and why. This study's findings that occupational self-efficacy is positively correlated to level of employment is relatively new, with little research studying this previously (Knoop, 1981). This fills a gap in the literature and opens the door to further exploration of the topic in the fields of HRD and organizational psychology. Further, employee engagement's positive correlation with age supports the literature (Douglas & Roberts, 2020; Kordbacheh et al., 2014) and adds to the body of research surrounding differences in workplace engagement across different demographic

groups. Additionally, the negative relationship employee engagement had with gender in the case of women contradicts previous research (Hameduddin & Lee, 2022; Khodakarami & Dirani, 2020) but adds to the relatively small body of research on the topic of gender and engagement in the workplace. This dissertation's study of demographic attributes' relationship with perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement deepens the literature in the fields of HRD and organizational psychology and strengthens the foundation for further research on these and related topics.

Implications for Practice

Additionally, the findings of this study have several implications for practitioners in corporate onboarding as well as leaders and stakeholders in the corporate sector, especially for those in fast-growing corporations and industries. This study has revealed that there is no significant difference in onboarding modality when it comes to perceived onboarding experience, workplace engagement, work locus of control, and occupational self-efficacy. For practitioners, this allows for more flexibility of onboarding programs. Stakeholders can make decisions regarding onboarding modality based on other factors beyond the variables studied here, such as employee experience, financial savings, global workforce distribution, and the nature of the work performed.

Further, the reported lack of impact of onboarding modality on several variables found in this study allows for practitioners to focus on using best practice in onboarding programs, regardless of modality. According to previous research, the quality of onboarding is related to many outcomes, including turnover intention (Bauer et al., 2007; Beaver & Hutchings, 2005; Gupta et al., 2018; Meyer & Bartels, 2017; Narayansany & Isa, 2021; Pratiwi et al., 2018; Smith et al., 2021), job performance (Ashford & Black, 1996; Bauer et al., 2007; Caldwell & Peters,

2018; Saks & Gruman, 2018; Smith et al., 2021; Wiseman et al., 2022), employee satisfaction (Ashford & Black, 1996; Bauer et al., 2007; Bauer & Erdogan, 2011; Cable et al., 2013), employee motivation (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Mahmood et al., 2022; Petrilli et al., 2022; Saks & Gruman, 2018), customer satisfaction (Athira, 2022; Bauer, 2013; Cable et al., 2013; Mahmood et al., 2022), and organizational commitment (Beaver & Hutchings, 2005; Meyer & Bartels, 2017; Sharma & Stol, 2020). This study also found a correlation between onboarding experience and employee engagement, which is supported by the literature (Cable et al., 2013; Chillakuri, 2020; Jeske & Olson, 2021; Petrilli et al., 2022; Saks & Gruman, 2018). For the most positive impact on these outcomes, the literature emphasizes the need to consider onboarding best practices, including the use of hands-on learning experience (Wiseman et al., 2022), socialization-focused learning and opportunities to socialize (Bauer, 2013; Saks & Gruman, 2018; Wiseman et al., 2022), and personal-identity-focused onboarding (Cable et al., 2013; Meyer & Bartels, 2017; Saks & Gruman, 2018). This study's findings that the socialization subscale of onboarding experience was correlated with engagement emphasizes the need for these socialization-focused best practices to be used. Basically, this study's lack of evidence regarding onboarding modality's impact on perceived onboarding experience, work locus of control, occupational self-efficacy, and employee engagement implies that practitioners can focus their attention on crafting effective modality-independent onboarding experiences.

Another critical implication for practice is the moderating role work locus of control was found to play on the relationship between onboarding modality and onboarding experience, work-related self-efficacy, and engagement. For instructional designers and onboarding stakeholders to ensure employees' experiences during onboarding are positive, they should

consider how to forge a workplace culture that encourages internal loci of control. Additionally, support should be provided to employees on an individual basis based on their locus of control.

Similarly, onboarding professionals should consider how the experiences of newcomers during onboarding are impacted by their past experiences and personal attributes. This study found that age and employment level, and in some cases age level of educational attainment and gender, are related to perceived onboarding experience, locus of control, self-efficacy, and engagement. This study found that these personal attributes are, in many cases, more salient predictors of these outcomes than onboarding modality. This emphasizes for practitioners to focus less on determining the 'best' modality to use and more on how to activate personality traits that lead to success and how to support employees from differing backgrounds.

<p style="text-align:center">Limitations and Recommendations for Future Research</p>

As is true with all research, this study had its limitations, which should be accounted for when considering its contributions to research. Additionally, these limitations can inform future related research studies.

While survey research is an appropriate method for collecting data about individuals' attitudes, it does come with several limitations that may have influenced this study's results (Fraenkel et al., 2019; Nardi, 2018). One of these is the threat to internal validity that response bias in self-administered questionnaires poses (Fraenkel et al., 2019; Nardi, 2018). For example, some participants could have misinterpreted questions or provided deliberately false answers. Additionally, participants, particularly those who onboarded over a year prior, may have experienced lapses in memory that impacted their responses.

Another limitation with a potential influence on this study is the common method variance (CMV), which is when observed correlations are inflated due to the variables being measured using the same method (Spector et al., 2019). A way to alleviate the potential bias from CMV would be using additional research methods, such as interviews, to add more variance to methods of measure (Spector et al., 2019).

The sampling used in this study may also have limitations on this study. This study used snowball sampling, where surveys were shared on social media starting with the researcher's network. While snowball sampling is a viable method for populations that may otherwise not be accessible, this does reduce the generalizability of the study (Nardi, 2018). To reduce this limitation in the future, it is recommended that researchers use randomized sampling techniques to have a more generalizable understanding of corporate employees' experiences with onboarding modalities.

Similarly, this study's sample was very diverse when it comes to industry, with 20 industry groups represented. The wide variety of industries might have skewed the data and made patterns difficult to observe due to differences in onboarding experiences and common practices across industries. To mitigate this potential limitation, future research studies could collect data on distinct fields to paint industry-specific pictures of onboarding modality and employee outcomes. Other variables that future research should consider exploring are race and ethnicity, diverse gender and sexuality identities, and neurodiversity.

While the sample was diverse when it comes to industry, the sample was also small, with only 153 participants' data analyzed. The low power of this sample means that some patterns may have been overrepresented or underrepresented. Future studies should collect more survey

data to ensure patterns are more definitively representative of and generalizable to the larger population.

In addition to future studies considering how to mitigate this study's limitations, future research should replicate and expand on this study's findings to determine whether onboarding modality in fact does not significantly impact the onboarding experience as well as what other variables, if any, are related to onboarding modality. Research could look at other outcomes, such as performance evaluations, customer satisfaction, turnover intention, and organizational commitment, and explore how these may differ depending on the modality used in new employee onboarding.

It is also critical that other intervening variables be considered when it comes to onboarding modality's impact on dependent variables. These include technological acceptance or self-efficacy, years of experience, and aspects of individual company cultures. One notable variable in the research is previous experience with onboarding modalities. Previous research found that previous online onboarding experience impacted the relationship between onboarding modality and experience, with those who had onboarded online previously experiencing less dissatisfaction than those who had no experience (Yadav et al., 2020). Exploring other dimensions of an employees' experience and how they can impact their experience onboarding through different modalities can provide a well-rounded view of onboarding modality's impacts as well as guide practitioners in their onboarding decisions.

In the future, qualitative or mixed research methods could be leveraged to identify additional patterns when it comes to onboarding modality. For example, interview research could be used to explore what specific qualities of an individual's onboarding experience (i.e., meeting load, cohort-style approaches, specific onboarding activities) were successful or unsuccessful.

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Additionally, interview research can explore the positives and negatives of each onboarding modality and create a more nuanced overview of the differences in onboarding modalities.

In addition to interview research, experimental research would help pinpoint distinct differences between onboarding modalities in specific corporations and programs. When comparing the experiences of employees across many corporations, like this study did, there are some variables unaccounted for, such as company culture, trainer knowledge and experience, and work-life balance. An experimental study where 3 groups at one company receive near identical onboarding programs through online, hybrid, and in-person modalities could pinpoint the way in which modality can impact the effectiveness of a singular program.

With the emergent shift to remote work and online corporate learning due to the COVID-19 pandemic, it is critical to understand how different modalities of onboarding can play a role in employee outcomes. The unexpected push to online work was not temporary, with more employees embracing remote or hybrid work now than before the pandemic (Parker et al., 2022; Scott et al., 2022). Understanding the impacts of onboarding modality and the ways in which to leverage it can improve the newcomer onboarding experience and its outcomes for individuals and corporations alike.

APPENDIX A

IRB APPROVAL

IRB #: IRB-22-584
Title: Onboarding Learning Modalities and Their Relationship with Onboarding Experience, Locus Of Control, Work Engagement, and Self-Efficacy
Creation Date: 10-6-2022
End Date:
Status: Approved
Principal Investigator: Karen Johnson
Review Board: UNT IRB Full Board
Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
Submission Type	Modification	Review Type	Exempt	Decision	Exempt

Key Study Contacts

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APPENDIX B

INFORMED CONSENT NOTICE

Informed Consent Notice

TITLE OF RESEARCH STUDY: Onboarding Learning Modalities and Their Relationship with Onboarding Experience, Locus of Control, Work Engagement, and Self-Efficacy

RESEARCH TEAM: The PI is Aubrey Rieder of the University of North Texas (UNT) Department of Learning Technologies (aubreyrieder@my.unt.edu, (862)596-9881.) This project is part of a dissertation under the supervision of Dr. Karen Johnson (karen.johnson@unt.edu, (940)565-3174, Department of Learning Technologies).

You are being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will answer any questions you might have. It is your choice whether or not you take part in this study. If you agree to participate and then choose to withdraw from the study, that is your right, and your decision will not be held against you.

You are being asked to take part in a research study about new-employee onboarding modality (online, in-person, or hybrid/mixed) and its impacts on employee experiences and outcomes.

Your participation in this research study involves the completion of a brief online questionnaire about your experiences during new-hire onboarding, which should take between 10 and 15 minutes to complete. More details will be provided in the next section.

You might want to participate in this study if you recently onboarded at a new corporate job and would like to share your experience to help improve the new-hire learning experience in corporate settings. However, you might not want to participate in this study if you have not recently undergone new-hire onboarding.

You may choose to participate in this research study if you are 20 years of age or older and have started a new corporate position within the last 6-12 months. 'Corporate' in the context of this study means you work in a private-sector company or corporation that operates on a for-profit basis. Additionally, to be eligible for this study, you must have an associate degree or further.

The reasonable foreseeable risks or discomforts to you if you choose to take part is comparable to the risks to confidentiality similar to a person's everyday use of the internet, which you can compare to the possible benefits of providing insight into new-employee onboarding in multiple modalities. You will not receive compensation for participation.

DETAILED INFORMATION ABOUT THIS RESEARCH STUDY: The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY: You are being asked to participate in a research study that involves collection information regarding the modality of new-employee onboarding (online, in-person, hybrid/mixed) and is relationship with employee experience and outcomes (perceived onboarding experience, locus of control, employee engagement, self-efficacy.)

TIME COMMITMENT: Participation in this study's survey is expected to take 10-15 minutes.

STUDY PROCEDURES: You will be asked to fill out a survey comprised of multiple-choice, open-ended, and rating scale questions regarding your experience during new-employee onboarding.

POSSIBLE BENEFITS: This study may not be of any direct benefit to you, but we hope to learn more about new-employee onboarding modality impacts employee experience and outcomes. We hope the project may benefit corporations, trainers, and new-hires in the future.

POSSIBLE RISKS/DISCOMFORTS: Participation in this online survey involves risks to confidentiality similar to a person's everyday use of the internet and that there is always a risk of breach of confidentiality.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security.

If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services.

COMPENSATION: You will not receive compensation for participation.

There are no alternative activities offered for this study.

CONFIDENTIALITY: Efforts will be made by the research team to keep your personal information private, including research study data, and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored in a secure location on the UNT campus and/or a secure UNT server for at least three (3) years past the end of this research on the PI's password-protected computer.

Your participation in this study is anonymous, and the information you provide cannot be linked to your identity.

Participation in this online survey involves the potential for the loss of confidentiality similar to a person's everyday use of the internet.

The results of this study may be published and/or presented without naming you as a participant. The data collected about you for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by law.

In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA (federal regulating agencies), the reviewing IRB, and sponsors of the study.

This research uses a third party software called Qualtrics and is subject to the privacy policies of this software noted here: https://www.qualtrics.com/privacy-statement/.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Aubrey Rieder at aubreyrieder@my.unt.edu or (862) 596-9881. Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

APPENDIX C

SURVEY INSTRUMENT

Onboarding Modality and its Relationship to Employee Experience

Section 1 - Demographics

Q1 What is your age?

o 20-24	o 40-44	o 60-64
o 25-29	o 45-49	o 64-69
o 30-34	o 50-54	o 70
o 35-39	o 55-59	

Q2 What is your gender?
o Male
o Female
o Non-binary
o Prefer to self describe: _____

Q3 What is your level of educational attainment (please select the highest degree you have received).
o Associate
o Bachelor
o Master
o Doctorate

Q4 Which of the following best describes your job rank or level?
o Entry-level employee
o Mid-level employee
o Senior-level employee
o Team lead or supervisor
o First-line manager
o Middle manager, director, or VP
o Upper manager or C-suite

Q5 In what industry do you work (e.g., technology, advertising, supply chain management, etc.)?

_____

Q6 When you onboarded (received new-employee training throughout the first six months) for your job, was training online, in-person/in the office, or hybrid (mix of both)?
o All Online
o All In-Person
o Mix of online and in-person (Hybrid)

Section 2 - Perceived Onboarding Experience

Survey items in this section are adapted from Gupta et al. (2018) and reproduced with permission from Emerald Group Publishing, Ltd.

Q7 Please select the degree to which you agree with each statement, with "strongly disagree" being 1 and "strongly agree" being 5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I was satisfied with the support and information I received before my first day on the job	1	2	3	4	5
The information sent to me before my first day helped me know what to expect, where to go, and other key information needed on the day I reported to work	1	2	3	4	5
Someone from my work unit contacted me in advance of my first day and made me feel welcome	1	2	3	4	5
I had a helpful, knowledgeable point of contact for my questions before I reported to work	1	2	3	4	5

Q8 Please select the degree to which you agree with each statement, with "strongly disagree" being 1 and "strongly agree" being 5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
In the orientation session, clear information was provided	1	2	3	4	5
The information I received on benefits and policies the on first day of the job was helpful and complete	1	2	3	4	5
The information I received on ethics and key personnel policies (e.g., equal opportunity, sexual harassment, etc.) was clear and helpful	1	2	3	4	5
I knew where to go to get additional assistance on personnel matters, benefits, and paperwork following my first day on the job	1	2	3	4	5

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Security was prepared for my arrival and I received appropriate credentials for building access on the first day of my job	1	2	3	4	5

Q9 Please select the degree to which you agree with each statement, with "strongly disagree" being 1 and "strongly agree" being 5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I was welcomed by my buddy/mentor	1	2	3	4	5
On my first day, my workspace was organized and I had everything that I needed to start working (or knew where to get it)	1	2	3	4	5
My supervisor quickly integrated me into the team	1	2	3	4	5
The performance management system was clearly explained to me	1	2	3	4	5

Q10 Please select the degree to which you agree with each statement, with "strongly disagree" being 1 and "strongly agree" being 5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I received initial training to help me understand internal systems, general operating practices, and other information needed to perform my job	1	2	3	4	5
My supervisor has provided on-going feedback about my performance	1	2	3	4	5
My supervisor checks with me regularly to answer any questions I may have	1	2	3	4	5
The job expectations as described in the job posting and interview process are consistent with what I am currently doing	1	2	3	4	5
I am held accountable for my performance	1	2	3	4	5

The organization's mission and my role in achieving mission accomplishment have been reinforced throughout the orientation	1	2	3	4	5
I am satisfied with the overall orientation that I have received	1	2	3	4	5

Section 3 - Work Locus of Control

Survey items in this section are adapted from Spector (1988) and reproduced with permission from John Wiley & Sons - Books.

Q11 Please select the degree to which you agree with each statement, with "disagree very much" being 1 and "agree very much" being 6.

	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
A job is what you make of it.	1	2	3	4	5	6
In most jobs, people can pretty much accomplish whatever they set out to accomplish	1	2	3	4	5	6

If you know what you want out of a job, you can find a job that gives it to you.	1	2	3	4	5	6
If employees are unhappy with a decision made by their boss, they should do something about it.	1	2	3	4	5	6
Getting the job you want is mostly a matter of luck.	1	2	3	4	5	6

Q12 Please select the degree to which you agree with each statement, with "disagree very much" being 1 and "agree very much" being 6.

	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
Making money is primarily a matter of good fortune	1	2	3	4	5	6

Most people are capable of doing their jobs well if they make the effort	1	2	3	4	5	6
In order to get a really good job, you need to have family members or friends in high places	1	2	3	4	5	6
Promotions are usually a matter of good fortune	1	2	3	4	5	6
When it comes to landing a really good job, who you know is more important than what you know	1	2	3	4	5	6

Q13 Please select the degree to which you agree with each statement, with "disagree very much" being 1 and "agree very much" being 6.

	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
Promotions are given to employees who perform well on the job	1	2	3	4	5	6
To make a lot of money you have to know the right people	1	2	3	4	5	6
It takes a lot of luck to be an outstanding employee on most jobs	1	2	3	4	5	6
People who perform their jobs well generally get rewarded	1	2	3	4	5	6
Most employees have more influence on their supervisors than they think they do	1	2	3	4	5	6

The main difference between people who make a lot of money and people who make a little money is luck	1	2	3	4	5	6

Section 4 - Employee Engagement

Survey items in this section are adapted from Schaufeli et al. (2006) and reproduced with permission from Sage Publications Inc. Journals.

Q14 Please select the degree to which you agree with each statement, with "never" being 0 and "always" being 6.

	Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
At my work, I feel bursting with energy	0	1	2	3	4	5	6
I find the work that I do full of meaning and purpose	0	1	2	3	4	5	6
Time flies when I am working	0	1	2	3	4	5	6
At my job, I feel strong and vigorous	0	1	2	3	4	5	6
I am enthusiastic about my job	0	1	2	3	4	5	6

Q15 Please select the degree to which you agree with each statement, with "never" being 0 and "always" being 6.

	Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
When I am working, I forget everything else around me	0	1	2	3	4	5	6
My job inspires me	0	1	2	3	4	5	6
When I wake up in the morning, I feel like going to work	0	1	2	3	4	5	6
I feel happy when I am working intensely	0	1	2	3	4	5	6

Section 5 - Work-related Self-Efficacy

Survey items in this section are adapted from Rigotti et al. (2008) and reproduced with permission from Sage Publications Inc. Journals.

Q16 Please select the degree to which you agree with each statement, with "strongly disagree" being 1 and "strongly agree" being 7.

	Strongly disagree	Disagree	Somewh at disagree	Neither agree nor disagree	Somewh at agree	Agree	Strongly agree
I can remain calm when facing difficulties in my job because I can rely on my abilities.	1	2	3	4	5	6	7
When I am confronted with a problem in my job, I can usually find several solutions	1	2	3	4	5	6	7
Whatever comes my way in my job, I can usually handle it.	1	2	3	4	5	6	7
My past experiences in my job have prepared me well for my occupational future.	1	2	3	4	5	6	7

I meet the goals that I set for myself in my job.	1	2	3	4	5	6	7
I feel prepared for most of the demands in my job.	1	2	3	4	5	6	7

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