

ORIGINAL ARTICLE OPEN ACCESS

# Sink or Swim? Empowering Trainees for Informal Learning to Improve Transfer and Distal Outcomes

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## ABSTRACT

When employees begin a new job in a competitive sales environment, they have a lot to learn in a short period of time. Most organizations incorporate an employee orientation and formal training, but newcomers also learn informally while on the job. We examine the impact of informal field-based learning (IFBL) on individual outcomes of 242 newcomer sales employees. We investigate how supervisor empowerment interacts with employees' goal orientation to impact IFBL, which serves as a conduit to further influence training transfer and employee outcomes (i.e., supervisor-rated performance, promotion, and turnover). Results demonstrate that IFBL promotes formal training transfer, which influences newcomers subsequent job performance, promotion, and turnover. We also found that supervisor empowerment has an indirect effect on employee promotion and turnover sequentially through IFBL, training transfer, and performance, and this indirect effect is moderated by employee goal orientation. Practical implications for leveraging supervisor empowerment and tailoring support based on employee goal orientation are discussed.

## 1 | Introduction

When organizations acquire newly hired employees, they are faced with the challenge of onboarding these newcomers so that they can perform up to speed. Oftentimes, organizational efforts to train and integrate newcomers fall short of expectations. A recent Gallup report indicates that only 12% of employees strongly believe their organization does a great job bringing newcomers onboard (Wigert and Pendell 2020), while another study found that 38% of newcomers exited their organizations within the first year (Work Institute 2020). In a competitive sales environment where employees are encouraged and directly rewarded to increase product sales, ensuring new sales employees have the requisite knowledge and skills to engage in effective sales

performance can yield immediate impact on firm success (Atefi et al. 2018; Wiseman et al. 2022).

Formal training sessions and modules are frequently utilized by organizations to promote newcomer learning and adjustment (Saks, Uggerslev, and Fassina 2007). These sessions typically are led by instructors within designated learning contexts and include specific learning objectives (Cerasoli et al. 2018). Formal training sessions can help employees acquire knowledge, skills, and abilities (KSAs) that boost organizational effectiveness (Cerasoli et al. 2018; Kraiger and Ford 2007). One of the challenges with formal training is enabling employees to utilize or transfer this training when doing their job (Baldwin, Ford, and Blume 2017; Ford, Baldwin, and Prasad 2018).

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Blume et al. (2019) developed a dynamic model of training transfer (DTM) to demonstrate how learning and training transfer is dependent on multiple factors that interact over time. These factors include contextual characteristics (e.g., supervisor behavior), individual differences (e.g., personality traits; motivation; self-regulatory processes), and trainee behaviors (e.g., attempting to practice/apply KSAs). In our study, we utilize this dynamic model as a theoretical basis to examine a key contextual characteristic (i.e., supervisor empowerment), an individual difference (i.e., goal orientation), and proactive trainee learning behaviors (i.e., informal field-based learning [IFBL]). IFBL is defined as employees “engaging in intentional, self-directed behavior aimed at learning new, work-oriented, and organizationally valued content outside of a formal learning program” (Wolfson et al. 2018, p. 16), which can positively impact increased knowledge acquisition and sharing (Matsuo and Nakahara 2013). More specifically, we investigate the interaction effect between supervisor empowerment and goal orientation transmitted through IFBL on formal training outcomes. We also propose that informal learning should be considered in the transfer process or DTM since the extent of informal learning is likely to impact the training transfer process and outcomes. Neither formal learning nor informal learning happens in a vacuum, but rather these two processes are likely intertwined or influence each other so that informal learning would impact the processes outlined in the DTM. For example, when trainees are attempting to transfer their training over time, their informal learning will likely inform these transfer attempts and the feedback they receive as they determine which KSAs to retain or modify.

Therefore, we examine how informal learning impacts the transfer process of formal learning (Blume et al. 2019). This approach aligns with recent research that has transitioned from considering employees as passive recipients of institutional information to active, self-directed learners who also rely on peer and manager support to enhance learning and development on the job (Kozlowski and Salas 2009). The focus on self-directed learning of newcomers is consistent with recent work on proactive socialization. This research domain examines proactive socialization behaviors that newcomers may exhibit, such as sensemaking, positive framing, feedback seeking, and information seeking, as well as how networking impacts outcomes such as relationships with the leader, affective commitment, role clarity and job-related self-efficacy (Ashford and Black 1996; Cooper-Thomas et al. 2014; Kowsikka and James 2019). A recent meta-analysis of 45 independent samples by Zhao et al. (2023) found that proactive behaviors were linked to more successful newcomer socialization. For instance, positive framing (e.g., tried to look on the bright side of things) impacted a number of socialization outcomes while sensemaking (information seeking and feedback seeking) was the next strongest predictor of role clarity and task mastery. They also found that sensemaking was a stronger predictor of job performance by newcomers than relationship building.

While proactive socialization examines a broad range of socialization outcomes, informal learning concentrates on understanding how individuals learn and develop on the job. Informal learning includes behaviors that are noncurricular and experiential, which occur in the workplace outside of formal learning

contexts via observing, asking questions, and dedicated practice (Cerasoli et al. 2018; Sambrook 2005; Tannenbaum et al. 2010). Employees who engage in IFBL are also more likely to increase their skills and take advantage of career development opportunities (Froehlich, Segers, and Van den Bossche 2014), which is critical for newcomers who are learning and developing in their roles. In our study context, IFBL will benefit newcomer sales employees in several ways.<sup>1</sup> One key advantage is that IFBL enables more personalized learning experiences that complement formal training, which tends to adopt a one-size-fit-all approach. Another benefit is that IFBL fosters stronger connections within the workplace. This is important because sales employees typically work independently, and IFBL creates opportunities for them to interact and learn from each other. Finally, given the demanding nature of sales work requirements, sales employees may not have the time to dedicate to formal learning and practice, and the flexibility of informal learning helps them make the most use of their time and seize spontaneous learning opportunities.

Despite recent research on IFBL, two gaps in the literature limit the field’s understanding of leveraging informal learning to facilitate newcomer performance and career development. First, although initial evidence suggests that employees engage in IFBL following formal learning activities (Choi and Jacobs 2011; Sparr, Knipfer, and Willems 2017), research has yet to investigate the role of IFBL in connection with formal training efforts in influencing distal outcomes such as promotion and turnover. One possibility that we propose is that successful sales employees can connect formal training elements from their onboarding activities with subsequent key informal learning moments on the job through feedback and reflection, vicarious learning, and learning through experimentation, thereby maximizing their transfer of newly acquired knowledge and skills to the job. The alternative scenario, however, suggests that sales employees may supplement transfer of training with IFBL, thus engaging in two complementary mechanisms simultaneously (Enos, Kehrhahn, and Bell 2003). Evaluating these two alternative mechanisms and thus establishing the linkage from IFBL to newcomer outcomes will not only elucidate the newcomer learning process but also offer new insight for organizations to better understand the consequences of their investment in learning and development.

Second, more research is needed to understand the interaction between individual and contextual variables that drive IFBL. Tannenbaum and Wolfson (2022) developed an organizing framework of IFBL that includes situational readiness and personal readiness, the latter being influenced by individual characteristics of employees. Their framework suggests these two factors can interact to influence the IFBL process. The potential interaction effect mirrors the DTM, which posits that situational and individual characteristics interact to influence transfer. Tannenbaum and Wolfson (2022) also note that previous research (e.g., Choi and Jacobs 2011) has shown that learning goal orientation (LGO) is a key individual characteristic related to IFBL in the learning and training context (Noe, Tews, and Michel 2017). We build on this by examining the moderating role of LGO in shaping how contextual factors influence IFBL. This is important because employees can take a proactive approach in learning and development (Dachner et al. 2021; Ford, Baldwin, and Prasad 2018), and their personal characteristics

can thus make them react differently to similar contextual characteristics (e.g., Chen and Mathieu 2008; Jones, Davis, and Thomas 2017). Moreover, we go beyond LGO and incorporate other dimensions of goal orientation, including performance-prove and performance-avoid goal orientation (PAGO; Noe, Tews, and Michel 2017) to examine the overall moderating effects of goal orientation on IFBL.

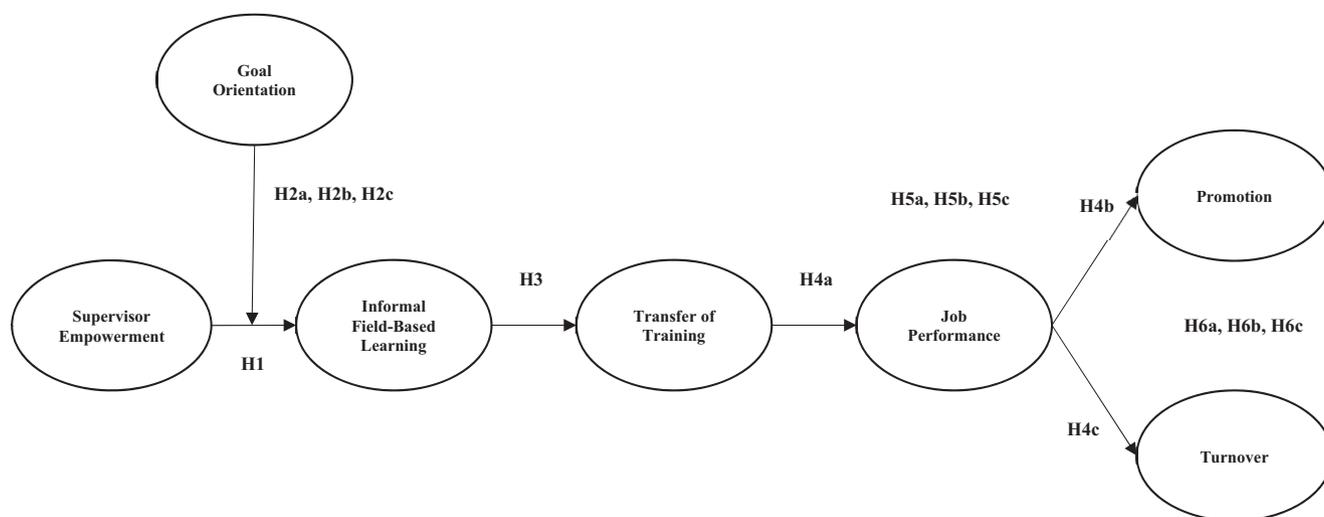
The two gaps identified in the IFBL literature are consistent with calls from the proactive socialization domain. It has been noted that while some individual characteristics such as work experience, demographics, and cognitive ability have been studied (e.g., Ashforth, Sluss, and Saks 2007; Wanberg and Kammeyer-Mueller 2000), the meta-analysis by Zhao et al. (2023) concluded that there is a need to examine additional individual difference factors to uncover which newcomers are more likely to engage in proactive socialization behaviors. Goal striving of newcomers during the initial socialization process has been found to impact both proactive behavior and learning outcomes (Tan et al. 2016). Zhao et al. also concluded that while there has been some attempt to examine leader roles (e.g., the role of servant leadership on newcomer proactivity behaviors by Bauer et al. 2019), there is a need to examine more fully the effects of supervisory behaviors on newcomer proactivity and subsequent more distal outcomes such as job performance.

We respond to this call by testing supervisor empowerment as a predictor of IFBL, with job performance, promotion, and turnover as distal outcomes of IFBL. We consider the support for IFBL in the work environment, focusing on supervisor empowerment (Tannenbaum and Wolfson 2022), which is particularly important for the newcomer sales employees in our study context. Tannenbaum and Wolfson (2022; p. 403) state, “Managers can greatly influence whether employees are motivated to engage in IFBL and whether demonstrating IFBL behaviors leads to positive outcomes.” Supervisor empowerment may be especially relevant to encourage employee informal learning given the voluntary (i.e., intentional, self-directed) nature of informal learning behaviors (Wolfson et al. 2018). While empowering employees (i.e., by demonstrating trust and confidence, showing respect and dignity, and providing authority; London 1993) can

increase employees' informal learning behaviors (Kukenberger, Mathieu, and Ruddy 2015), the extant research has yet to uncover employee individual differences that can magnify or constrain the benefits of empowerment (London 1993). Consistent with the DTM and the organizing framework of IFBL, we adopt an aptitude-treatment interaction perspective (Blume et al. 2019; Gully and Chen 2010; Hatrup and Jackson 1996) to examine how employees' goal orientation moderates the effects of supervisor empowerment provided in the job context. Empowering employees through increased authority and responsibility gives them the opportunity to direct their behavior and strive for goals (Ahearne, Mathieu, and Rapp 2005), but empowerment may also burden employees by increasing role ambiguity and job stress (Cheong et al. 2016). Attending to the potential aptitude-by-treatment interaction (Gully and Chen 2010) can not only enrich theoretical understanding of the empowerment mechanism, but also offer practical guidance for managers.

Furthermore, we integrate goal orientation theory and the DTM to propose a longitudinal model of new sales employee learning and its effect on distal work outcomes (see Figure 1). Specifically, upon completing formal onboarding activities, a sales employee's perceived empowerment from supervisors may influence their IFBL differently depending on their goal orientation. Considering transfer as a dynamic process where trainees make repeated attempts to apply, rehearse, and refine newly acquired knowledge and skills on the job (Blume et al. 2019; Huang, Ford, and Ryan 2017), we position IFBL as a precursor to sales employees' effective transfer of training and subsequent sales performance, culminating in subsequent promotion and turnover. We test our model in a multi-wave, multi-source study of sales newcomers.

In summary, we investigate how IFBL contributes to the transfer of formal training since best practices and many organizations advocate for employees to engage in both formal and informal training to increase their human capital (Aguinis and Kraiger 2009; Noe, Clarke, and Klein 2014). Furthermore, we extend prior research that connects IFBL to supervisor-rated performance (Cerasoli et al. 2018; Tannenbaum and Wolfson 2022) by modeling the extent to which these



**FIGURE 1** | Conceptual model.

relationships unfold over time from initial onboarding to whether employees new to their role leave or stay with the organization and whether they are promoted. We also examine employee's goal orientation tendencies as moderators of supervisor empowerment in predicting IFBL and transfer. Our work not only builds upon recent suggestions about the importance of goal orientation for IFBL (Tannenbaum and Wolfson 2022), but also reveals the complex role goal orientation plays in leveraging supervisor empowerment. As such, we answer calls to better understand the antecedents, consequences, and factors that influence an individual's engagement in and subsequent benefit from IFBL (Wolfson et al. 2018; Tannenbaum and Wolfson 2022).

## 2 | Theoretical Background and Hypotheses Development

Informal learning is deliberate self-development where the learner “determines what and when to learn and evaluates whether or not learning has been successful” (Noe, Tews, and Michel 2017, p. 3). Informal learners take the responsibility to learn in anticipation of future needs (Noe, Tews, and Michel 2017) and informal learning is performed in relation to goal achievements defined by the learner rather than an instructor or the organization (Cerasoli et al. 2018; Santoro 2022). IFBL consists of seeking feedback and reflection-based learning, vicarious learning, and learning through experimentation and new experiences (Wolfson et al. 2018). Feedback and reflection-based learning can be achieved through coaching or gaining advice from experts. Vicarious learning can occur when employees intentionally observe others do their job or have someone demonstrate how to perform a task. Examples of learning through experimentation are when a job assignment is completed in a new way or through a trial-and-error approach to find improved ways to perform a task (Tannenbaum and Wolfson 2022; Wolfson et al. 2018).

Below, we hypothesize supervisor empowerment as a contextual antecedent to IFBL and then discuss how goal orientation tendencies can moderate the influence of supervisor empowerment. After that, we formulate hypotheses on how IFBL impacts subsequent employee outcomes (i.e., training transfer, supervisor-rated performance, promotion, and turnover).

### 2.1 | Supervisor Empowerment

To better perform their work roles, sales employees joining a new organization need to quickly learn about the product or service to sell, understand organizational incentive structures, and get familiar with the work environments (Bauer et al. 2007; Tang et al. 2014). As formal learning opportunities are often limited during the onboarding process (e.g., in the orientation training program) and are unlikely to satisfy new employees' learning needs, it is important that individuals take advantage of informal learning (Tannenbaum 1997; Tannenbaum and Wolfson 2022). Empowerment has been shown to increase job knowledge, particularly among less experienced employees (Leach, Wall, and Jackson 2003). It refers to “a practice or set of practices involving the delegation of

responsibility down the hierarchy so as to give employees increased decision-making authority in respect to the execution of their primary work tasks” (Leach, Wall, and Jackson 2003, p. 28). Initial evidence suggests that empowerment is positively related to informal learning. Kukenberger, Mathieu, and Ruddy (2015) found that teams experiencing a greater sense of empowerment reported engaging in more informal learning. Consistent with this notion, Cerasoli et al. (2018) found in their meta-analysis a moderate correlation of 0.31 between job control/autonomy and informal learning.

New employees can be overwhelmed by excessive amounts of things to do and will need resources to complete those tasks. Their supervisor represents an important source of help and support (Chong et al. 2021). Employees who feel they are empowered by their supervisors may show greater initiative to identify knowledge content and to pursue informal learning activities that do not immediately generate desirable work outcomes (Cerasoli et al. 2018). They may also be more willing to reach out to peers for feedback on their development. In addition, empowered employees may not feel constrained by formal training activities and may feel more comfortable trying new approaches to perform work tasks (Chong et al. 2021). Taken together, we propose:

**Hypothesis 1.** *Supervisor empowerment is positively related to employee IFBL.*

### 2.2 | Goal Orientation

Despite the constructive role of supervisor empowerment in facilitating employee IFBL, individuals may react differently to this resource. We focus on goal orientation as an individual difference that can propel newcomers to differentially utilize IFBL to achieve subsequent outcomes. Goal orientation is critical in shaping how individuals engage with, understand, and respond to achievement situations, particularly those involving learning and performance (e.g., Blume et al. 2010; Dweck 1999; Porath and Bateman 2006).

Goal orientation captures individuals' relatively stable tendencies toward developing or demonstrating ability (Dweck 1986). We follow VandeWalle (1997) to conceptualize three dimensions of goal orientation: (a) LGO, defined as a desire to develop the self by acquiring new skills, mastering new situations, and improving one's competence; (b) performance-prove goal orientation (PPGO), defined as the desire to prove one's competence and to gain favorable judgments about it; and (c) PAGO, defined as the desire to avoid the disproving of one's competence and to avoid negative judgments about it. Based on available evidence that LGO is positively related to IFBL, Tannenbaum and Wolfson (2022) called for research that considers how different forms of goal orientation can “independently and jointly influence IFBL” (p. 408). Not only can our study answer this call, but we also advance the understanding of the complex roles of LGO, PPGO, and PAGO as moderators of supervisor empowerment.

Individuals with higher LGO are more intrinsically motivated to learn (Matsuo, Arai, and Matsuo 2019) and are more

likely to pursue skill development and refinement (Brett and VandeWalle 1999; Dong et al. 2017) expend effort to acquire new knowledge (Fisher and Ford 1998), and utilize feedback to reflect on their performance level to set future goals (VandeWalle, Cron, and Slocum Jr 2001). Thus, it is not surprising that LGO shares a positive, albeit modest, meta-analytic correlation with learning (Payne, Youngcourt, and Beaubien 2007) and transfer (Blume et al. 2010). More specific to the current investigation, LGO has been shown to positively predict informal learning behaviors (Choi and Jacobs 2011).

Given our prior argument that empowered employees are more likely to explore IFBL, we expect LGO to strengthen this relationship. For employees with higher LGO, they are more likely to utilize opportunities to learn. Thus, when their supervisors give them the latitude to do so, higher LGO employees will act upon the empowerment to thrive and engage in informal learning activities. However, when their supervisors limit decision-making authority, they are less likely to pursue these informal opportunities.

In contrast, for employees with lower LGO, they may not have the dispositional tendency to seek out informal learning opportunities. Being empowered by their supervisors to make various decisions at work does not directly translate into more informal self-improvement activities at work. Thus, among employees with lower LGO, supervisor empowerment will not have a significant impact on the relationship with IFBL. Taken together, we hypothesize the following:

**Hypothesis 2a.** *LGO moderates the positive relationship between supervisor empowerment and IFBL, such that the relationship is more positive for individuals with higher LGO.*

PPGO has strong relationships with goals of comparing well to others (Brett and VandeWalle 1999; Vandewalle, Nerstad, and Dysvik 2019). It is important to note that the motivation behind PPGO individuals is to demonstrate competence and performance. As in the competitive sales context (Atefi et al. 2018) of the current study, acquiring new knowledge and skills informally on the job may be viewed by employees with higher PPGO as a means to increase their sales performance. For example, they may believe that spending additional time learning about features of products that customers desire can lead to a higher number of products sold. In other words, those with higher PPGO are likely to engage in IFBL to “prove their performance,” aiming to increase their job performance and performance evaluations. According to Chadwick and Raver (2015), performance-focused goal orientation learning processes are for the use of exploitation (i.e., use of learned content) as compared exploration (i.e., assimilating new learning). Thus, individuals with higher PPGO will engage in learning activities to the extent those activities help demonstrate competence and yield desirable outcomes. Consistent with this notion, Santoro (2022) found that bank agency managers in Brazil who had higher PPGO were more likely to participate in informal cognitive learning strategies so that they could exploit learned content.

Therefore, we suggest that supervisor empowerment may no longer be an essential resource for people with higher PPGO

regarding IFBL engagement. This is because the highly competitive sales environment pushes higher PPGO sales employees to seek out any (if not all) methods of improving performance, among which IFBL can be a convenient, available, and easy-to-conduct strategy. Thus, regardless of how much supervisor empowerment is available to individuals, those with higher PPGO will desire to demonstrate competence by engaging in IFBL. It is important to contrast this situation with that of higher LGO individuals. Higher LGO individuals are driven by learning goals to engage in IFBL, but the competitive sales environment may force performance to be the top priority over learning. As a result, higher LGO sales employees will need supervisor empowerment to pick up IFBL. By contrast, higher PPGO individuals do not necessarily rely on supervisor empowerment to do IFBL but can be self-motivated to utilize IFBL to demonstrate competence and get approval from others.

However, we expect employees with lower levels of PPGO to react to supervisor empowerment differently. As discussed, supervisor empowerment may have a weak influence on IFBL for employees higher on PPGO because they are likely to already be motivated to rely on informal learning strategies such as seeking out feedback from others to improve their performance (Porath and Bateman 2006). In contrast, employees with lower PPGO are more likely to benefit from supervisor empowerment. When their supervisors give them autonomy and encouragement, they may realize the benefit and be empowered to participate in more IFBLs to improve their sales performance. Otherwise, where there is less supervisor empowerment, employees lower in PPGO may not take the initiative to seek out additional learning opportunities on the job. Thus, we expect:

**Hypothesis 2b.** *PPGO moderates the positive relationship between supervisor empowerment and IFBL, such that the relationship is more positive for individuals with lower PPGO.*

Individuals with higher PAGO want to avoid showing incompetence and receiving negative evaluations (VandeWalle 1996). In learning situations, learning and performance may be hindered by the preoccupation with a person's thoughts unrelated to learning, and as a result, PAGO shares weak negative correlations with learning and task performance (Payne, Youngcourt, and Beaubien 2007). This dispositional tendency makes individuals react differently to supervisor empowerment. Given supervisor empowerment, employees higher in PAGO will be more likely to step out of their comfort zone to explore additional learning opportunities and to seek feedback and advice. This is because enablement and support from supervisor will be more significant to employees with higher PAGO before they are willing to engage in IFBL. Without supervisor empowerment, individuals with higher PAGO may choose to focus on work tasks to ensure things are completed properly rather than setting aside time and effort to engage in IFBL.

Therefore, we expect PAGO to moderate the relationship between supervisor empowerment and IFBL such that the association will be stronger when PAGO is higher.

**Hypothesis 2c.** *PAGO moderates the positive relationship between supervisor empowerment and IFBL, such that the relationship is more positive for individuals with higher PAGO.*

## 2.3 | Informal Learning, Training Transfer, and Distal Outcomes

Formal training activities provide newcomers with knowledge and skills to start performing (e.g., understanding of information, operation of products). Although informal and formal learning can oftentimes be intertwined (Enos, Kehrhahn, and Bell 2003; Sparr, Knipfer, and Willems 2017), we see two reasons to expect IFBL to serve as a conduit that subsequently leads to more transfer of training. First, informal learning may reinforce formal learning (Marsick 2009; Richter, Kortsch, and Kauffeld 2020). IFBL provides trainees with the tool to engage in additional learning and practice, seek out advice from others, reflect on connections across topics, and experiment (Sparr, Knipfer, and Willems 2017). Reflecting on what is being learned and making incremental improvement over time can lead to greater competence (Svensson, Ellstrom, and Aberg 2004). The increased knowledge and competence will give employees more material to apply on the job.

Second, following research that conceptualizes transfer as an iterative process that unfolds over time (Baldwin and Ford 1988; Blume et al. 2019), we expect IFBL to enable trainees to become effective at applying formal learning to their jobs. After training, sales employees will attempt to apply newly acquired knowledge and skills to their job, and their initial attempts may not be proficient (Blume et al. 2019; Huang, Ford, and Ryan 2017). Indeed, improvement in training transfer may occur over time in the weeks after training (Huang, Ford, and Ryan 2017). Informal learning actions such as reflection-based learning, vicarious learning, and learning through experimentation can allow trainees to expand how they utilize newly acquired knowledge and skills, thus promoting effective training transfer (Sparr, Knipfer, and Willems 2017). For example, after reflecting on her initial experiences with transferring formal training, a sales employee may intentionally observe others in her use of a similar technique, and as a result become more skillful at transferring the same technique. Therefore, we expect that IFBL behaviors support and reinforce the transfer of training, leading to the following hypothesis.

**Hypothesis 3.** *Informal field-based learning positively predicts transfer of training.*

Trainees who transfer job-relevant knowledge and skills are more likely to perform well on the job. Assuming proper needs assessment prior to the training, the knowledge and skills being trained are instrumental for trainees' performance. Thus, it should be no surprise that transferring the requisite knowledge and skills is positively associated with job performance (Aguinis and Kraiger 2009; Colquitt, LePine, and Noe 2000). In the current study, where learning and applying product information is critical to performing well in a sales job, we expect employees with higher levels of IFBL to reap performance benefits through better transfer of training. For example, employees who improve their knowledge about products and selling skills gained in training via IFBL behaviors (e.g., by seeking advice and experimentation) can better transfer their training. They can do this by using these enhanced KSAs to direct customers toward products that meet their needs and effectively demonstrating how to use products. Thus, the informal learning can enable employees

to engage customers more effectively, resulting in better job performance.

**Hypothesis 4a.** *Informal field-based learning has a positive relationship with job performance through transfer of training.*

We further expect IFBL to influence subsequent promotion and turnover of new sales employees. Both IFBL and training transfer build or enhance the human capital (e.g., increasing knowledge and skills) of employees, which is important for performance and career outcomes (Arthur Jr. et al. 2006; Tannenbaum and Wolfson 2022; Garavan et al. 2021). We would expect other more distal employee/organizational outcomes to vary depending on the job performance of employees. Employees who perform well in their jobs are more likely to be promoted (Van Scotter, Motowidlo, and Cross 2000; Wayne et al. 1997). A promotion will signal to employees that their contributions are valued by the organization, and it will motivate the employees to continue to apply their human capital within the company.

In addition, those who learn and perform well would be more likely to remain with the organization, especially when pay is linked to performance (Ng et al. 2022; Nyberg 2010; Park and Sturman 2016; Rubenstein et al. 2018). On the other hand, those who do not participate as much in IFBL and to facilitate training transfer may fail to reach performance expectations, resulting in higher likelihood of leaving the organization (Ju and Li 2019; Randall, Brooks, and Heck 2022). This turnover could be voluntary because they self-select out of the organization, or involuntary because they are asked to look elsewhere for employment.

**Hypothesis 4b.** *Informal field-based learning has a positive relationship with subsequent promotion sequentially through transfer of training and job performance.*

**Hypothesis 4c.** *Informal field-based learning has a negative relationship with subsequent turnover sequentially through transfer of training and job performance.*

Combining the sequential mediation effects (Hypothesis 4) and the interaction between empowerment and goal orientation (Hypothesis 2) proposed above, we expect the effect of supervisor empowerment on job performance to be mediated by IFBL and training transfer, which is then moderated by goal orientation. In addition, job performance can further transmit the moderated indirect effect of supervisor empowerment to the distal outcomes of promotion and turnover. Specifically, supervisor empowerment will have stronger indirect effects (i.e., through IFBL & training transfer) on job performance, promotion, and turnover for trainees with higher LGO, lower PPGO, and higher PAGO.

**Hypothesis 5.** *Supervisor empowerment has an indirect effect on job performance sequentially through IFBL and transfer of training, and this indirect effect is moderated by (a) LGO; (b) PPGO; and (c) PAGO.*

**Hypothesis 6.** *Supervisor empowerment has an indirect effect on (i) promotion and (ii) turnover sequentially through IFBL, transfer of training, and performance, and this indirect effect is moderated by (a) LGO; (b) PPGO; and (c) PAGO.*

### 3 | Methods

Participants were full-time, entry-level sales employees based in the United States who had recently started a new position within a multinational company that designs, produces, and markets consumer goods. These sales employees were responsible for selling the same type of products. They thus all virtually attended a 2.5-day, formal training program focusing on company product knowledge and sales processes. Data were collected online through two employee surveys and one supervisor survey.

During the virtual training, the company provided employees with dedicated time to complete the Time 1 (T1) online survey. For T1, we collected data on individual goal orientation (VandeWalle, Cron, and Slocum Jr 2001), supervisor empowerment (London 1993), and IFBL (Wolfson et al. 2018). Then, 4–6 weeks post-training, participants were sent the Time 2 (T2) survey to complete, asking them to respond about their training transfer (Blume et al. 2019). At the same time (T2), we collected data from each employee's direct supervisor about the trainee's job performance. We collected turnover and promotion data through company human resource (HR) records about 7 months after the end of the T2 data collection.

The original sample had 244 sales employees, but we removed two cases who had been working in the company for more than 1 year and were thus not newcomers to the company. Nearly 70% of the sample self-reported a tenure of 1 or 2 months, with almost all employees in the sample reporting a tenure of 1–4 months, and none exceeding 6 months. The final sample of this study includes 242 participants, who were on average 24.50 years old and had an average of 5 years of work experience. The majority of the participants were White (69.7%), followed by Hispanic (12.3%), Black or African American (5.7%), Asian American (5.3%), and Native Hawaiian or Pacific Islander (2.0%). Fifty percent of the participants were females.

### 3.1 | Measures

#### 3.1.1 | Supervisor Empowerment

Supervisor empowerment ( $\alpha=0.93$ ) was measured at T1 with three items adopted from London (1993) that measured empowerment. Participants were instructed to reflect on their supervisors' behavior toward them when responding to the questions. Items included, "Gives me the authority I need to do my job," "Treats me with dignity and respect," and "Demonstrates trust and confidence in me." Items were rated on a 5-point scale from strongly disagree to strongly agree.

#### 3.1.2 | Goal Orientation

We used 12 items from VandeWalle (1997) to measure three goal orientation variables at T1: LGO ( $\alpha=0.83$ ), PPGO ( $\alpha=0.71$ ), and PAGO ( $\alpha=0.80$ ). For each dimension, four items were used. Example items include "I am willing to select a challenging work assignment that I can learn a lot from" (LGO), "I like to show that I can perform better than my coworkers" (PPGO), and "I would avoid taking on a new task if there was a chance that I

would appear rather incompetent to others" (PAGO). Items were rated on a 5-point scale from strongly disagree to strongly agree.

#### 3.1.3 | Informal Field-Based Learning

Following Wolfson et al. (2018), we measured IFBL at T1 from three dimensions, including feedback/reflection-based learning ( $\alpha=0.77$ ), vicarious learning ( $\alpha=0.80$ ), and learning through experimentation/new experiences ( $\alpha=0.79$ ). IFBL items were preceded with the following stem: "Over the past 4 weeks, how much new learning, knowledge, skill, competencies or expertise have you gained through each of the following actions?" Example items include "Seeking and receiving coaching or advice from job experts" (feedback/reflection-based learning), "Intentionally observing someone do his or her job" (vicarious learning), and "Performing a task in a new and different way" (learning through experimentation/new experiences). Consistent with Wolfson et al. (2018), we used a 5-point scale with the following anchors: 1 = no learning, 2 = a little learning, 3 = a moderate amount of learning, 4 = a lot of learning, and 5 = a great deal of learning. The overall reliability of the measure of IFBL was 0.89.

#### 3.1.4 | Transfer of Training

At T2, we asked individuals to evaluate their transfer of training. Six items were adapted from Blume et al. (2023) to measure the use ( $\alpha=0.75$ , three items) and effectiveness ( $\alpha=0.86$ , three items) of training transfer. The items include: "I applied the knowledge and skills from the training when performing the job. (Use)," "I used the knowledge and skills from the training to influence or assist others. (Use)," "I changed behavior on the job to be consistent with the material taught in the training (Use)," "My quality of work improved due to what was learned in the training. (Effectiveness)," "My job behavior became more effective following the training. (Effectiveness)," and "My job performance improved due to the knowledge and skills learned in the training. (Effectiveness)." Items were rated on a 5-point scale from strongly disagree to strongly agree. The overall reliability of the training transfer measure was 0.87.

#### 3.1.5 | Supervisor-Rated Job Performance

We invited participants' supervisors to evaluate their job performance 4–6 weeks after training at T2 using a three-item measure based on items from Wayne et al. (1997) performance scale ( $\alpha=0.93$ ). Items included, "Compared to others, had excellent performance," "Performed the job the way I like to see it performed," and "Exceeded expectations in the role" and were rated on a 5-point scale from strongly disagree to strongly agree. We received the results of performance evaluation on 132 participants (54.5%) in the sample.<sup>2</sup>

#### 3.1.6 | Promotion and Turnover

The HR department provided data on employee promotion and turnover. The original data on promotion (1 = promoted; 0 = not

promoted) and turnover ( $1 = \text{left}$ ;  $0 = \text{stayed}$ ) had information on the date of the event of promotion and turnover. No person was promoted or quit the job before they completed the training requirement. To understand if individuals would be more (or less) likely to be promoted or quit the job in our study, we used continuous-time survival analysis to predict the likelihood of experiencing the event of promotion and turnover as distal outcomes. To create individuals' survival data on promotion and turnover, we computed the number of days between the date of accomplishing the training session and the date of the event of promotion and turnover. We treated people who neither got promoted nor quit their jobs at the end of the study period as right-censored (Leung, Elashoff, and Afifi 1997).

## 4 | Results

Table 1 presents the descriptive statistics of study variables. As expected, IFBL was positively correlated with transfer of training ( $r = 0.41$ ,  $p < 0.01$ ), supervisor empowerment ( $r = 0.23$ ,  $p < 0.01$ ), LGO ( $r = 0.36$ ,  $p < 0.01$ ), and PPGO ( $r = 0.22$ ,  $p < 0.01$ ), but had a negative correlation with PAGO ( $r = -0.18$ ,  $p < 0.01$ ). Transfer of training was positively correlated with supervisor-rated job performance ( $r = 0.28$ ,  $p < 0.01$ ) and promotion ( $r = 0.14$ ,  $p < 0.05$ ) but negatively correlated with turnover ( $r = -0.16$ ,  $p < 0.05$ ). These results provided initial evidence for our hypotheses. It may be worth noting that the rates of promotion (32%) and turnover (35%) are consistent with our understanding of the competitive sales context (Atefi et al. 2018). A significant percentage of

newcomers were promoted or left within the first 7 months into their new roles.

Before we tested our hypotheses, we first examined the pattern of missing data in our full sample ( $N = 242$ ) at the item level in this study. The result of Little's (1988) missing completely at random (MCAR) test suggested that the data were MCAR:  $\chi^2 = 70.65$ ,  $df = 72$ ,  $p = 0.52$ . We thus used full information maximum likelihood with robust maximum likelihood estimator in Mplus Version 8.6 (Muthén and Muthén 2017) to test the hypothesized model using the full sample (see Figure 2). Given the modest sample size, we tried to reduce model complexity by computing interaction terms based on mean-centered observed scores of supervisor empowerment and goal orientation variables and by establishing item parcels using the internal-consistency approach (see Little et al. 2002) for the latent variables of IFBL and transfer of training. Job performance was modeled using a full latent structure, and the variables of promotion and turnover in survival analysis were calculated based on observed scores (see prior section for description).

We then tested the measurement model of this study. Given our interest in overall IFBL and transfer of training, we performed second-order confirmatory factor analysis. The results for IFBL ( $\chi^2(24) = 28.05$ , CFI = 0.99, TLI = 0.99, RMSEA [90% CI] = 0.03 [0.00, 0.06]) and transfer of training ( $\chi^2(8) = 13.82$ , CFI = 0.99, TLI = 0.97, RMSEA [90% CI] = 0.06 [0.00, 0.10]) showed excellent fit. Together, the measurement model that included all latent variables (i.e., IFBL, transfer of training, and job performance) in

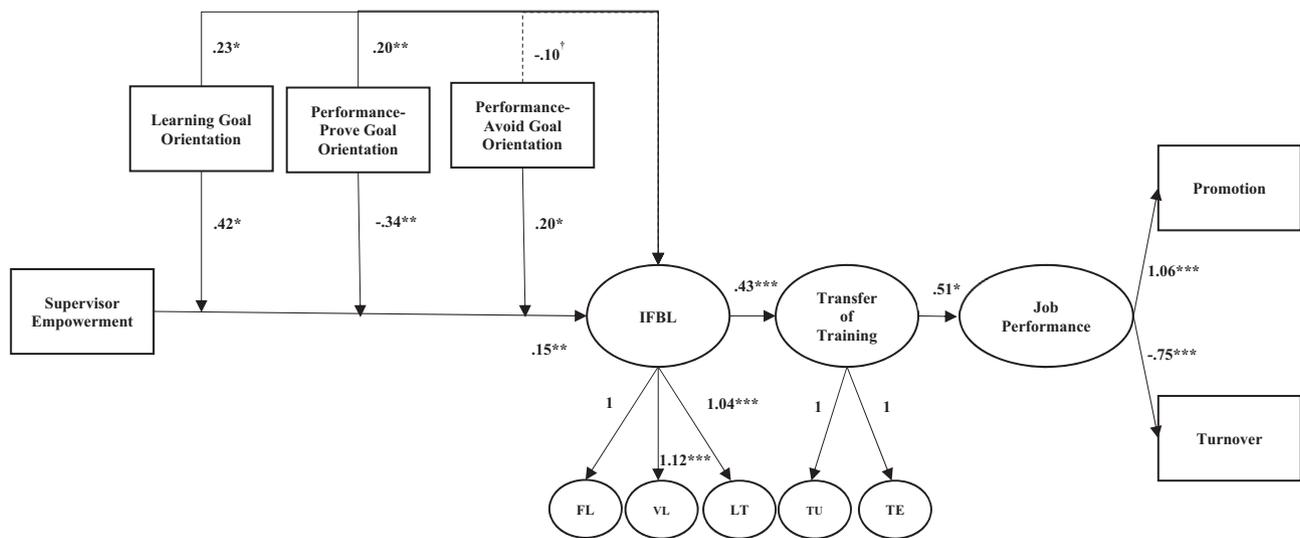
**TABLE 1** | Descriptive statistics of study variables.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Supervisor empowerment	4.45	0.81	0.93									
2. LGO	4.37	0.50	0.20**	0.83								
3. PPGO	3.98	0.61	0.00	0.37**	0.71							
4. PAGO	2.48	0.79	-0.09	-0.41**	0.13*	0.80						
5. Informal field-based learning	4.14	0.65	0.23**	0.36**	0.22**	-0.18**	0.89					
6. Transfer of training	4.46	0.55	0.12	0.21**	0.14**	0.10	0.41**	0.87				
7. Supervisor-rated job performance	4.02	0.88	-0.05	0.21*	0.13	-0.19*	0.02	0.28**	0.93			
8. Promotion	0.32	0.47	0.07	0.09	0.13*	-0.01	0.06	0.14*	0.29**	—		
9. Turnover	0.35	0.48	-0.09	-0.07	-0.07	-0.09	-0.13	-0.16*	-0.23**	-0.47**	—	
10. Age	24.50	2.44	0.04	0.02	0.02	-0.08	-0.08	-0.13*	-0.07	-0.07	0.04	—
11. Work experience	5.05	3.38	0.03	0.08	0.07	-0.16*	-0.02	0.02	0.07	-0.02	0.00	0.62**

Note:  $N = 235$ – $242$ , with the exception of supervisor-rated job performance ( $N = 132$ ). LGO = Learning goal orientation. PPGO = Performance-prove goal orientation. PAGO = Performance-avoid goal orientation. Promotion ( $1 = \text{got promoted}$ ;  $0 = \text{didn't get promoted}$ ); turnover ( $1 = \text{left}$ ;  $0 = \text{stayed}$ ). Cronbach's alphas are presented along the diagonal in italics.

\* $p < 0.05$ .

\*\* $p < 0.01$ .



**FIGURE 2** | Results of model testing.  $N = 242$ .  $^{\dagger}p < 0.10$ ;  $*p < 0.05$ ;  $**p < 0.01$ ;  $***p < 0.001$ . Straight lines indicate significant paths, and dashed lines indicate nonsignificant paths. Variables in oval shape are latent variables, and those in rectangular shape are variable composites. Measurement items and their factor loadings and covariance between variables are not displayed for parsimony. Using the sample of  $N = 132$  that excludes participants who did not have manager-rated performance data to test the model did not change the results of the hypothesized paths in the model. FL, feedback/reflection-based learning; IFBL, informal field-based learning; LE, learning through experimentation/new experiences; TE, transfer of training effectiveness; TU, transfer of training use; VL, vicarious learning. Factor loadings of FL, TU, and TE were fixed at 1 for model identification.

this study also showed excellent fit to the data:  $\chi^2(128) = 131.24$ , CFI = 1.00, TLI = 1.00, RMSEA [90% CI] = 0.01 [0.00, 0.03].

In continuous-time survival analysis in *Mplus*, the commonly reported model fit information (e.g.,  $\chi^2$ , RMSEA, CFI, TLI) is not available. To assess the overall model fit, we took a two-step approach. First, we fitted an intermediate model that is similar to the reported model in Figure 2 but did not include the survival component on promotion and turnover. The model showed excellent fit to the data:  $\chi^2(248) = 292.64$ , CFI = 0.98, TLI = 0.97, RMSEA [90% CI] = 0.03 [0.01, 0.04], thus providing initial support to our model. Second, we tested the full model as hypothesized, adding the survival component on promotion and turnover to the intermediate model (see Figure 2). The significance of both survival effects supports their inclusion in the full model. We thus retained this model for hypothesis testing.

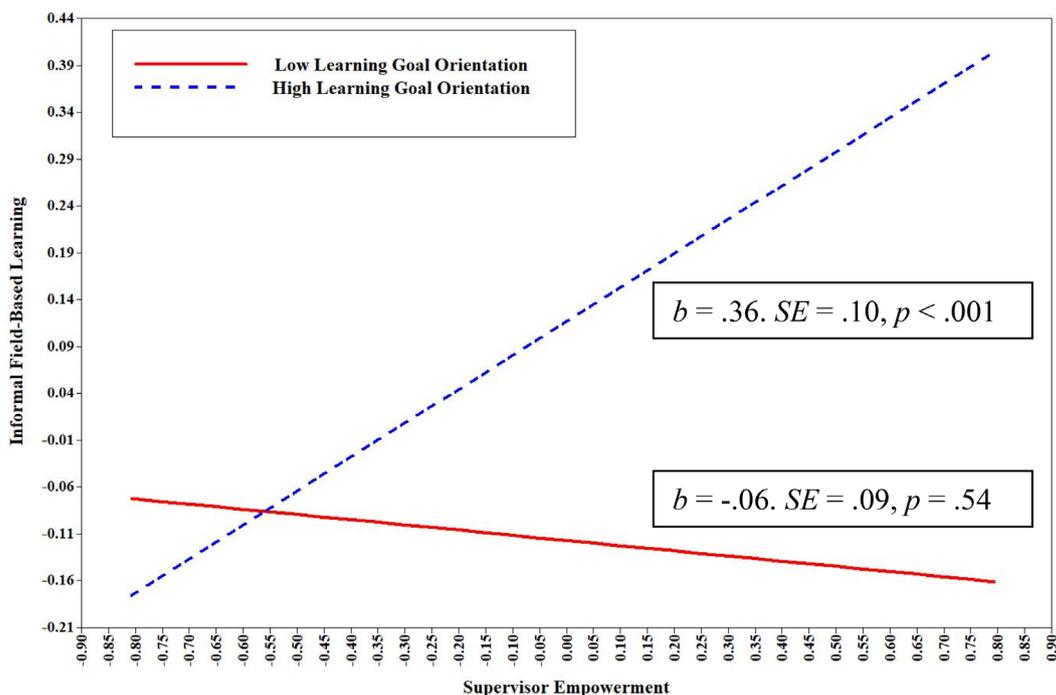
Hypothesis 1 predicts a positive relationship between supervisor empowerment and employee IFBL. We found that supervisor empowerment was positively related to IFBL ( $b = 0.15$ ,  $SE = 0.05$ ,  $p < 0.01$ ). Thus, Hypothesis 1 was supported. Although we did not hypothesize relationships between LGO, PPGO, and PAGO with IFBL given our focus on the interaction effects, these relationships were included in the results of model testing (see Figure 2) since these direct relationships are necessary when testing moderating effects. The results show that both LGO and PPGO had positive effects on IFBL (0.23 and 0.20), whereas PAGO had a negative effect ( $-0.10$ ) that approached statistical significance.

Hypothesis 2a proposes that LGO moderates the relationship between supervisor empowerment and IFBL, such that the positive relationship is stronger for people with higher LGO. The result supported this hypothesis, as the interaction between supervisor

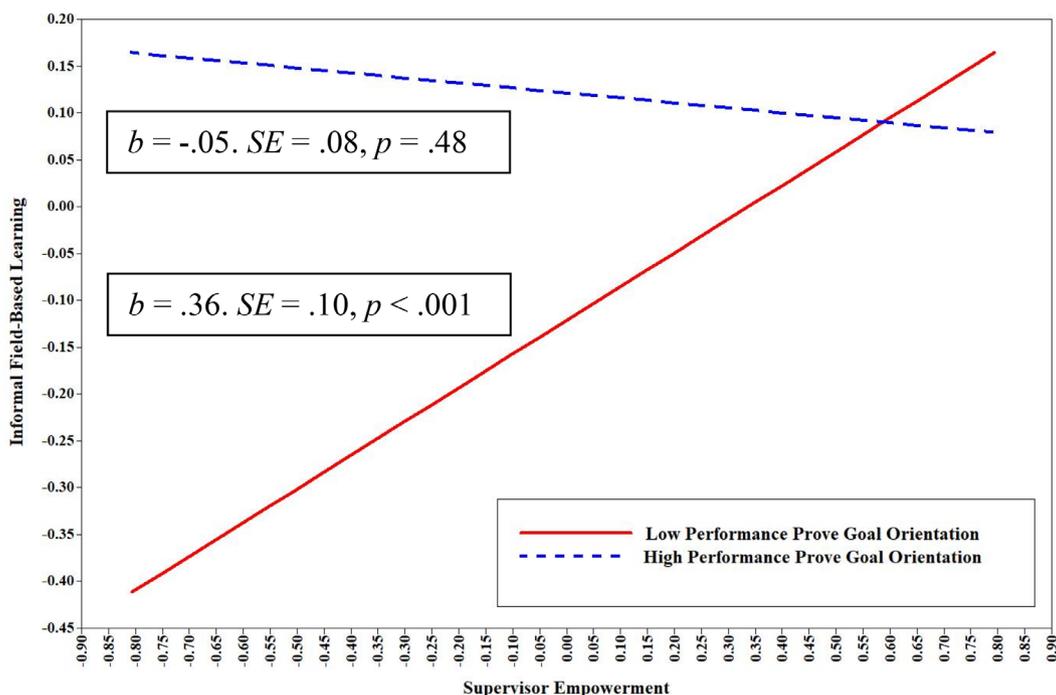
empowerment and LGO had a significant influence on IFBL ( $b = 0.42$ ,  $SE = 0.16$ ,  $p < 0.05$ ). Figure 3 illustrates the interaction between supervisor empowerment and LGO. When employee LGO was higher (i.e., +1SD), individuals receiving supervisor empowerment were more likely to engage in IFBL ( $b = 0.36$ ,  $SE = 0.10$ ,  $p < 0.001$ ). By contrast, even with the presence of supervisor empowerment, people with lower LGO (i.e., -1SD) did not increase their IFBL ( $b = -0.06$ ,  $SE = 0.09$ ,  $p = 0.54$ ).

Hypothesis 2b contends that PPGO moderates the relationship between supervisor empowerment and IFBL, such that the positive relationship is stronger for people with lower PPGO. We found that the joint effect of supervisor empowerment and PPGO negatively influenced IFBL ( $b = -0.34$ ,  $SE = 0.11$ ,  $p < 0.01$ ). The interaction between supervisor empowerment and PPGO is shown in Figure 4. Whereas the relationship between supervisor empowerment and IFBL was significant and positive ( $b = 0.36$ ,  $SE = 0.10$ ,  $p < 0.001$ ) when PPGO was lower, it became nonsignificant ( $b = -0.05$ ,  $SE = 0.08$ ,  $p = 0.48$ ) when PPGO was higher. Thus, Hypothesis 2b was supported. Hence, for employees with lower PPGO, their engagement in IFBL was more contingent on receiving supervisor empowerment, whereas employees with higher PPGO engaged in IFBL regardless of supervisor empowerment.

Hypothesis 2c argues that PAGO moderates the relationship between supervisor empowerment and IFBL, such that the positive relationship is stronger for people with higher PAGO. The interaction effect was significant ( $b = 0.20$ ,  $SE = 0.09$ ,  $p < 0.05$ ), thus supporting this hypothesis. We plotted in Figure 5 the simple slopes of the relationship between supervisor empowerment and IFBL when the condition of PAGO differed. Consistent with our hypothesis, we found that when PAGO was higher, supervisor empowerment had a significant positive relationship with employee IFBL ( $b = 0.31$ ,  $SE = 0.08$ ,  $p < 0.001$ ), but this relationship



**FIGURE 3** | Interaction between supervisor empowerment and learning goal orientation.

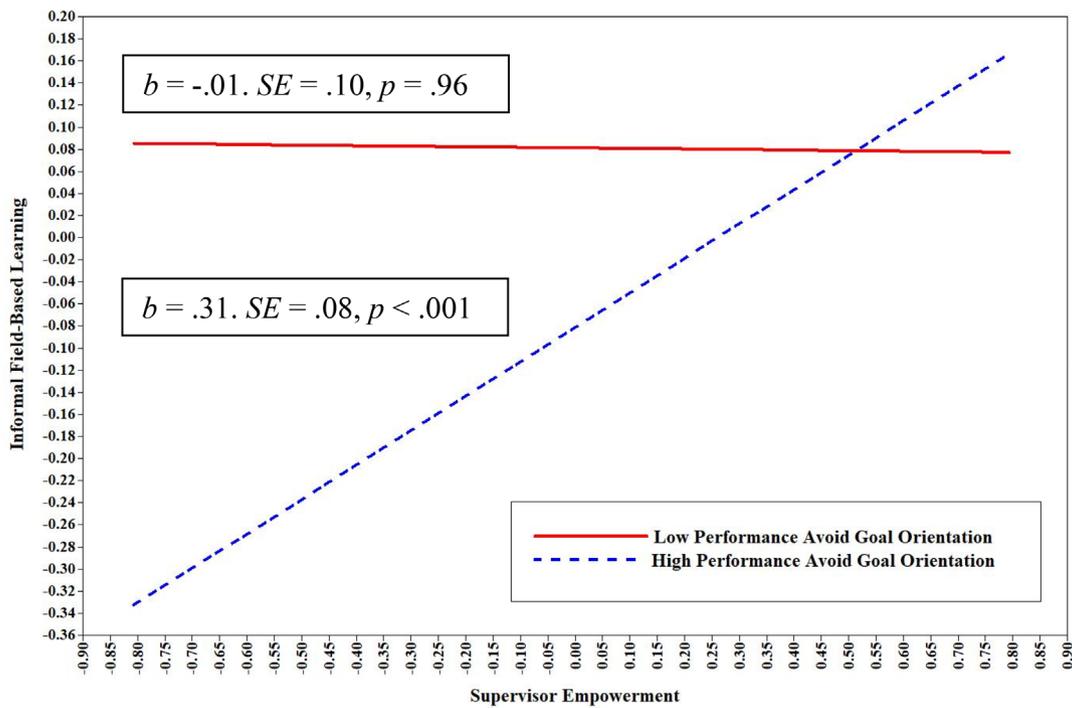


**FIGURE 4** | Interaction between supervisor empowerment and performance-prove goal orientation.

was not significant when PAGO was lower ( $b = -0.01$ ,  $SE = 0.10$ ,  $p = 0.96$ ).

Hypothesis 3 predicts that IFBL positively predicts transfer of training. We found support to this hypothesis, as IFBL was positively associated with transfer of training ( $b = 0.43$ ,  $SE = 0.07$ ,  $p < 0.001$ ). Given the result, we continued to test Hypothesis 4a that predicts the role of transfer of training in mediating the effect of IFBL on employee job performance. We created 5000

bootstrapped samples to test this indirect effect and its 95% confidence intervals. Through transfer of training, IFBL had a positive indirect effect on job performance (*indirect effect* = 0.22, 95% CI = [0.07, 0.43]). Thus, Hypothesis 4a was supported. Considering the possibility that IFBL and transfer of training could function as two parallel predictors of job performance, we tested an alternative model that reflected this structure. The alternative model showed that transfer of training ( $b = 0.53$ ,  $SE = 0.23$ ,  $p < 0.05$ ) but not IFBL ( $b = -0.06$ ,  $SE = 0.15$ ,  $p = 0.68$ )



**FIGURE 5** | Interaction between supervisor empowerment and performance-avoid goal orientation.

was related to employee job performance. In another alternative model, we included the direct effect of IFBL on job performance in the model shown in Figure 2, this direct effect was not significant ( $b = -0.11$ ,  $SE = 0.17$ ,  $p = 0.51$ ), and including this direct effect did not change the model results. Taken together, these findings provided additional support for Hypothesis 4a and indicate that transfer of training fully mediated the effect of IFBL on job performance.

We expect IFBL to have a positive relationship with subsequent promotion (H4b) and a negative relationship with subsequent turnover (H4c), which are transmitted first through transfer of training then through job performance. Our findings showed that IFBL had a positive indirect impact on employee promotion (*indirect effect* = 0.24, 95% CI = [0.07, 0.50]) and negative indirect impact on turnover (*indirect effect* = -0.17, 95% CI = [-0.35, -0.05]) sequentially through transfer of training and job performance. This suggests that individuals who engaged in more IFBL had a greater chance to receive promotion and were less likely to quit, because IFBL facilitated transfer of formal training, and the resulting increased job performance was translated into promotion and turnover results. Therefore, Hypothesis 4b and 4c were supported.

Hypothesis 5 states an indirect effect of supervisor empowerment on employee job performance that is sequentially mediated through IFBL and transfer of training, and the indirect effect is moderated by LGO, PPGO, and PAGO. We tested these moderated mediation relationships from Hypothesis 5 using a similar approach as we did in prior hypothesis testing but excluded the survival components in the analytical model. Table 2 summarizes our findings. We found that the indirect effect of supervisor empowerment was significant on job performance (*indirect effect* = 0.03, 95% CI = [0.01, 0.09]). This indirect effect was also significant when employee LGO was higher (*indirect*

*effect* = 0.08, 95% CI = [0.02, 0.19]) but not significant when employee LGO was lower (*indirect effect* = -0.01, 95% CI = [-0.07, 0.02]). That is, supervisor empowerment would be more effective in improving employee job performance for individuals who had a stronger desire to learn and thus utilize the empowerment resource to learn in informal ways and transfer training to work.

We also found that the indirect effect of supervisor empowerment on employee job performance was not significant when PPGO was higher (*indirect effect* = -0.01, 95% CI = [-0.07, 0.02]), but was significant when PPGO was lower (*indirect effect* = 0.08, 95% CI = [0.02, 0.18]). This indicates that employees with a higher PPGO practice IFBL with or without empowerment from their supervisors, whereas the extent of IFBL demonstrated by employees with lower PPGO is dependent on supervisor empowerment (i.e., more empowerment is associated with more IFBL).

Finally, when PAGO was high versus low, the influence of supervisor empowerment on employee job performance was also stronger (*indirect effect* = 0.07, 95% CI = [0.02, 0.17]). This is not surprising in this study because supervisor empowerment motivated and enabled higher PAGO employees to take advantage of IFBL. Therefore, Hypothesis 5 involving the moderating role of the different types of goal orientation was completely supported in this study.

Hypothesis 6 argues that empowerment has an indirect effect on employee promotion and turnover sequentially through IFBL, training transfer, and performance, and the indirect effect is moderated by goal orientation. To test this hypothesis, we replaced the number of days to events in survival analysis with binary logistic outcomes of promotion (1 = *promoted*; 0 = *not promoted*) and turnover (1 = *left*; 0 = *stayed*) because moderated mediation analysis was not available for continuous survival analysis. The model showed good fit to the data:

**TABLE 2** | Results of moderated indirect effects.

DVs	Moderators	Indirect effect	Lower 2.5%	Higher 2.5%
Job performance	Learning goal orientation			
	+1 SD	<b>0.08</b>	<b>0.02</b>	<b>0.19</b>
	0SD	<b>0.03</b>	<b>0.01</b>	<b>0.09</b>
	-1 SD	-0.01	-0.07	0.02
Job performance	Performance-prove goal orientation			
	+1 SD	-0.01	-0.07	0.02
	0SD	<b>0.03</b>	<b>0.01</b>	<b>0.09</b>
	-1 SD	<b>0.08</b>	<b>0.02</b>	<b>0.18</b>
Job performance	Performance-avoid goal orientation			
	+1 SD	<b>0.07</b>	<b>0.02</b>	<b>0.17</b>
	0SD	<b>0.03</b>	<b>0.01</b>	<b>0.09</b>
	-1 SD	-0.001	-0.05	0.05
Promotion	Learning goal orientation			
	+1 SD	<b>0.05</b>	<b>0.01</b>	<b>0.16</b>
	0SD	<b>0.03</b>	<b>0.002</b>	<b>0.08</b>
	-1 SD	-0.002	-0.05	0.04
Promotion	Performance-prove goal orientation			
	+1 SD	-0.004	-0.05	0.03
	0SD	<b>0.03</b>	<b>0.002</b>	<b>0.08</b>
	-1 SD	<b>0.05</b>	<b>0.01</b>	<b>0.15</b>
Promotion	Performance-avoid goal orientation			
	+1 SD	<b>0.05</b>	<b>0.01</b>	<b>0.15</b>
	0SD	<b>0.03</b>	<b>0.002</b>	<b>0.08</b>
	-1 SD	0.001	-0.04	0.05
Turnover	Learning goal orientation			
	+1 SD	<b>-0.04</b>	<b>-0.14</b>	<b>-0.004</b>
	0SD	<b>-0.02</b>	<b>-0.07</b>	<b>-0.001</b>
	-1 SD	0.002	-0.04	0.05
Turnover	Performance-prove goal orientation			
	+1 SD	0.003	-0.02	0.05
	0SD	<b>-0.02</b>	<b>-0.07</b>	<b>-0.001</b>
	-1 SD	<b>-0.04</b>	<b>-0.14</b>	<b>-0.004</b>
Turnover	Performance-avoid goal orientation			
	+1 SD	<b>-0.04</b>	<b>-0.14</b>	<b>-0.01</b>
	0SD	<b>-0.02</b>	<b>-0.07</b>	<b>-0.001</b>
	-1 SD	-0.001	-0.05	0.04

Note:  $N = 242$ . Bootstrapping = 5000. Unstandardized coefficients are reported. The indirect effects and their 95% confidence intervals not including zero are presented in bold.

$\chi^2(296) = 341.61$ , CFI = 0.97, TLI = 0.96, RMSEA [90% CI] = 0.03 [0.01, 0.04]. We found that manager-rated job performance was significantly associated with employee promotion ( $b = 0.65$ ,  $SE = 0.20$ ,  $p < 0.01$ ) and turnover ( $b = -0.54$ ,  $SE = 0.18$ ,  $p < 0.01$ ).

The result was consistent with the findings in the survival analysis. We continued to test the hypothesized moderated indirect effect using 5000 bootstrapped samples. Table 2 presents the results of indirect effect testing.

The results show that supervisor empowerment had a significant indirect effect on promotion (*indirect effect* = 0.03, 95% CI = [0.002, 0.08]) and turnover (*indirect effect* = -0.02, 95% CI = [-0.07, -0.001]), indicating that sales employees who received supervisor empowerment had a better chance of getting promoted and staying in the organization. More importantly, the indirect effects became stronger when LGO and PAGO were higher and when PPGO was lower. Hence, supervisor empowerment has a stronger influence on the promotion and turnover outcomes of sales employees who have higher LGO and PAGO, possibly because LGO guides individuals to learn through IFBL and training transfer and because PAGO pushes individuals to learn because they are reluctant to show incompetence. By contrast, employees with lower PPGO will benefit more from supervisor empowerment because empowerment gives them the discretion to seek out additional learning opportunities on the job. Therefore, Hypothesis 6 was completely supported in this study.

## 5 | Discussion

As organizations invest in training and development, it is essential to assess whether employees utilize their learning to benefit the organization by examining outcomes such as training transfer, employee performance, retention, and promotion (Baldwin, Ford, and Blume 2017; Tannenbaum and Wolfson 2022). Three findings in particular stand out most in our study. First, IFBL was a significant, direct predictor of formal training transfer. Second, when newcomers demonstrated IFBL and subsequent training transfer, they received higher performance ratings from their supervisor, which reduced turnover and increased the likelihood that the employee would be promoted. Third, we clarified the role of goal orientation in facilitating IFBL: aside from exerting their unique direct effects, LGO, PPGO, and PAGO interacted with supervisor empowerment to influence IFBL. We explore these key findings in-depth below.

A theoretical contribution of this study related to the DTM is that we identify IFBL as a potential mechanism that could enable trainees in general to effectively integrate feedback as well as retain and modify KSAs throughout the training transfer process (Blume et al. 2019). The DTM could be updated to include informal learning, which can occur both pre- and post-training, as well as during and after training transfer attempts. Employees who are more likely to engage in intentional, self-directed informal learning behaviors are also more likely to transfer their formal training (Marsick 2009; Richter, Kortsch, and Kauffeld 2020). They also are more likely to gain additional knowledge and skills through informal learning (Tannenbaum and Wolfson 2022), which gives them an advantage when applying what they learn. In addition, when employees who demonstrate IFBL behaviors make initial attempts and begin to apply their formal training, their informal learning actions such as vicarious learning and learning through experimentation likely enable them to expand how they utilize newly acquired knowledge and skills, thus increasing training transfer effectiveness (Sparr, Knipfer, and Willems 2017). For example, new sales employees can observe how experienced salespeople communicate with customers and relate it to the communicative skills learned in training sessions. By combining the knowledge, they can develop their own styles

of communication through trial and error that attends to their personal strengths and preferences.

This study is the first that we are aware of to connect IFBL to subsequent promotion and turnover outcomes (Tannenbaum and Wolfson 2022). The findings indicate that newer employees with higher IFBL have higher training transfer and job performance (Wolfson et al. 2018; Wolfson et al. 2019), which reduces their turnover and gives them a higher likelihood of being promoted. This is also consistent with proactive socialization research that demonstrated newcomer sensemaking behavior (information seeking and feedback seeking) had a positive, meta-analytic relationship with job performance and a negative relationship with intention to turnover (Zhao et al. 2023). By ruling out an alternative model where both IFBL and transfer were antecedents to performance, we increase the confidence that our model accurately specifies transfer as a mediator of the relationship between IFBL and job performance. Within our study context examining newcomers in a sales job, these outcomes suggest that organizations that invest in the learning and development of employees should promote IFBL behaviors and training transfer, which are likely to improve employee job performance and reduce turnover.

We also found that supervisor empowerment plays a crucial role in encouraging newcomers to demonstrate IFBLs, with stronger effects for some employees than others depending on their goal-orientation profiles. Specifically, empowered employees were more likely to increase their IFBL when they exhibited higher LGO, lower PPGO, and higher PAGO. This supports the aptitude-by-treatment interaction perspective proposed in the DTM and the organizing framework of IFBL (Blume et al. 2019; Gully and Chen 2010; Tannenbaum and Wolfson 2022) since the situational context of supervisor empowerment could be interpreted differently by the focal employees. Our findings suggest that the same contextual resource (i.e., supervisor empowerment) can be utilized in unique ways by individuals with different goal orientation profiles. Furthermore, our findings provide insights into the role of goal orientation in workplace learning. Although Payne, Youngcourt, and Beaubien's (2007) meta-analytic study showed that PPGO has near zero associations with learning and task performance, it is possible that the effect of PPGO would become evident when other factors in the workplace are considered. As we found in our model that included the interaction between supervisor empowerment and PPGO, the main effect of PPGO on IFBL was positive. As for PAGO, despite the commonly observed negative relationship with learning and performance outcomes, it could work together with other contextual factors to jointly influence learning. Therefore, our study demonstrates that not only are both the context and individual differences of trainees important to consider, but the interaction between these can also influence IFBL and training transfer (Blume et al. 2019; Gully and Chen 2010; Tannenbaum and Wolfson 2022).

### 5.1 | Practical Implications

Managers and trainers' intent on helping newcomers transfer formal training should consider how to promote employee IFBL. They can also integrate and plan for how employees can increase both their IFBL and formal training transfer behaviors. For example, encouraging employees to actively seek feedback,

discuss on-the-job experiences with others, ask others to help do a task, and perform a task differently. Informal learning behaviors such as these are likely to form a mindset and be beneficial when transferring formal training to their job tasks. In addition, supervisors can be trained to provide direct assistance, guidance, and emotional support to employees to support both informal and formal learning (Blume, Ford, and Huang 2024). This is consistent with findings that the level of organizational and supervisor support is related to persistence in continuing to learn on the job (Chiaburu, Van Dam, and Hutchins 2010). These are the types of supervisory support behaviors that managers can promote in the workplace to improve employee learning transfer (Sparr, Knipfer, and Willems 2017).

Based on our and other findings (Cerasoli et al. 2018; Tannenbaum and Wolfson 2022), employees can expect to benefit from their investments in IFBL by better job performance as they apply their new knowledge and skills to the workplace. Employees in our sample with higher IFBL, transfer, and job performance were also more likely to be promoted. In this way, employees (and especially newcomers) can gain from IFBL as it may yield longer-term, beneficial career outcomes such as promotions. In addition, organizations benefit by hiring employees who are less likely to leave the organization, which can reduce employee turnover and thereby save money for the organization (Rubenstein et al. 2018). Therefore, identifying employees higher in IFBL may be a way to identify higher-potential employees who are set to continuously develop and grow, filling job roles with increasing responsibility in an organization.

Finally, our study offers managers timely guidance on how to adopt a more nuanced approach to better support their employees' learning and transfer (Blume, Ford, and Huang 2024). Organizations could consider utilizing personality tests to examine applicant characteristics such as goal orientation. When onboarding employees, managers should consider the employees' goal orientation and recognize that their empowerment and support may function differently across employees. Empowering employees who are higher on LGO, lower on PPGO, and/or higher on PAGO is especially important to encourage these employees to demonstrate IFBL. Although existing research would generally recommend that managers empower employees (Cerasoli et al. 2018; Kim, Beehr, and Prewett 2018; Seibert, Wang, and Courtright 2011), our study offers the new insight to managers as to why empowerment is more likely to lead to increased IFBL with some but not other employees. Managers can also avoid getting frustrated by the lack of response to empowering behaviors by some employees by recognizing that an investment into an empowering management style is more likely to 'pay off' with certain employees as they increase their informal learning and improve their training transfer and performance. Additional interventions or actions not related to empowerment may be necessary to encourage IFBL with some employees.

## 5.2 | Limitations and Future Research

Our study is limited in several ways. First, we proposed a process conceptual model but tested it with empirical data where some variables were measured at the same time points using self-report surveys. Common method variance (Podsakoff et al. 2003) would

thus potentially confound with the results. The cross-sectional approach used in part of this study was limited by access to organizational data, but we used the following methods to reduce the potential impact of common method bias: we measured IFBL and transfer of training at different time points, and we used other rating sources including supervisor-rated performance and archival data of promotion and turnover. Still, future research is recommended to adopt true longitudinal designs to examine the hypothesized relationships.

Second, we acknowledge that the relationship between IFBL and training transfer will occur over time and is likely to be reciprocal (Choi and Jacobs 2011; Cseh and Manikoth 2011). Ideally, we could capture and study this interaction or dynamic between formal training and informal learning over time. However, in this study we examined or measured IFBLs during a formal training session and consider how employees' engagement in IFBL impacted their subsequent training transfer. The direction of the effects in this relationship may vary depending on the amount and timing of the formal training and when employees engage in IFBLs. For instance, individuals who gained limited knowledge and skills from a formal training program may have more room to learn through IFBL, assuming they are motivated to do so. In addition, an anonymous reviewer alerted us to the possibility that IFBL could interact with formal training to influence training transfer. Because the training program in our study utilized a highly standardized approach to instruction, we did not expect much meaningful variation on formal training, and thus did not model the interactive effect. Future research may examine formal training programs that are less standardized (e.g., self-directed learning) to assess how IFBL interacts with formal training.

Third, we situated this research in the context of onboarding new sales employees in a competitive environment with expedited promotional opportunities and relatively high turnover. It remains unknown whether the findings in this study can be generalized to other types of jobs, different stages of employee development, or learning contexts. For example, the support staff in an organization (e.g., HR professional, accountants) may have less challenging learning requirements, and transfer of training could be accomplished without IFBL. In another situation, experienced workers may have already developed mature working methods and would thus rely less on informal learning. It is interesting to note that ever since the COVID-19 pandemic many newly recruited employees are allowed to work remotely. These individuals are likely faced with a different informal learning context with fewer opportunities for vicarious learning. It is possible that certain types of IFBL (i.e., feedback/reflection and learning through experience) may play a more important role in influencing training transfer for employees working remotely.

## 5.3 | Conclusion

In summary, IFBL is associated with higher transfer of training and is important for sales newcomers to achieve better performance. We found that employees demonstrating high IFBL are also more likely to be promoted and less likely to leave the organization. Managers should promote IFBL as well as consider employees' goal orientation to improve newcomer outcomes.

## Conflicts of Interest

The authors declare no conflicts of interest.

## Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## Endnotes

<sup>1</sup>We thank an anonymous reviewer for this insight and for encouraging us to consider the overlap between IFBL and proactive socialization.

<sup>2</sup>Using the sample of  $N = 132$  to test our model in Figure 2 showed similar results of hypothesis testing.

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