

5-9-2024

## **Pandemic Impact on Feedback Environments Among Remote and Traditional Office Workers**

John Bryan Gianneschi  
*Walden University*

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# Walden University

College of Management and Human Potential

This is to certify that the doctoral dissertation by

John Bryan Gianneschi

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

Review Committee

Dr. Richard Thompson, Committee Chairperson, Psychology Faculty  
Dr. David Mohr, Committee Member, Psychology Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2024

Abstract

Pandemic Impact on Feedback Environments Among Remote and Traditional Office

Workers

by

John Bryan Gianneschi

MS, Walden University, 2008

MS, University of Pittsburgh, 1981

BA, Slippery Rock State University, 1974

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial and Organizational Psychology

Walden University

April 2024

## Abstract

Research on feedback-seeking, a critical component of employee self-regulatory behavior, has heavily relied on conventional offices, laboratories, and classrooms. Researchers have called for studies in varied workplaces and remotely situated work locations, but opportunities were constrained by organizational limits on deploying workers beyond organizational offices. The COVID-19 pandemic's forced dispersal of office workers to work remotely from their homes overcame these organizational limits. This quantitative survey study compared 232 employee ratings of feedback environments and leader-member exchange relationships to assess their relative effectiveness among employees dispersed by the COVID-19 pandemic to remote locations with those of employees remaining in conventional office settings. Comparisons included work engagement, and job satisfaction outcomes across locations. ANOVA analyses of feedback environments and leader-member exchange survey responses were positive overall and higher for leader-member exchange in remote locations. Multiple regression analyses of work engagement and job satisfaction outcomes supported a conclusion that remote locations were effective and more strongly influenced by leader-member exchange. Results contribute to the literature on feedback self-regulation in remote locations. Expanding office work locations to include remote and hybrid settings supports positive social change and furthers inclusion of workers unable to meet commuting and attendance requirements.

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## Dedication

This dissertation is dedicated to Linda Louise Cooper, who encouraged and supported me from its beginnings through the Proposal and, in honor of her memory, to its completion.

## Acknowledgments

This dissertation was the largest single academic work I had ever undertaken. Its completion over a span of several years would not have been accomplished without the patience and thoughtful guidance of my committee chair, Dr. Richard Thompson. Along with Dr. Thompson's always-available electronic presence were my second committee members, Dr. Linda Talley and Dr. David Mohr. Their multiple reviews, questions, and comments gently led me to gain perspective on my work and guided me in its improvement and conclusion.

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## Chapter 1: Introduction to the Study

### **Introduction**

COVID-19's sudden global emergence during the winter and spring of 2020 led governments to scramble with public health lockdowns, closure notices, and enforcing stay-at-home orders due to the transmissibility and virulence of the resulting pandemic (Chaney & Torry, 2020). In Ohio, for example, a state of emergency ordered by Governor Mike DeWine on March 9 (DeWine, 2020) was shortly followed by a stay-at-home Public Health Order on March 22 (Ohio Department of Health, 2020). With limited exceptions, employers of administrative, technical, and professional workers were required to shift their work activities from conventional offices to individual home office settings. These measures were repeated across the United States with varying degrees of compliance (Yan et al., 2020). Over the ensuing months, U.S. office workers initially dispatched to temporarily work remotely discovered their remote work was here to stay (Castellanos, 2020), and their organizations might be considering eliminating conventional offices (MacDonald, 2020). Employers, likewise, were busily shifting activities such as hiring and onboarding entirely online (Dill, 2020). With little forewarning or planning, office work transitioned to dining room tables, dens, rec rooms, bedrooms, and attics with electronic media support and limits to workplace interactions (Wee & Fehr, 2021).

Estimates by the U.S. Bureau of Labor Statistics (2019) put the total of technical, professional, and administrative office workers at close to 70 million individuals. Realistically, some of these workers, consultants, and contract workers, were already

stationed away from their organization's office locations, and others with job duties requiring physical presence at specific locations lessen the total of newly made remote workers (Dey et al., 2020). However, the size of the Bureau of Labor Statistics estimate suggests widespread unanticipated dislocations. Business organizations continued to limit or avoid bringing back administrative, technical, and professional office workers displaced to work-from-home arrangements during the balance of 2020 and 2021 despite the widespread availability of vaccines to lessen the severity of COVID-19 infections (Cutter, 2021). The second year of pandemic-initiated remote work was accompanied by speculation that bosses were switching from directive to collaborative styles (Dill, 2021), and some companies might be planning for future hybrid combinations of in-office and remote work settings (Loten, 2021). As remote work persisted, gaps appeared between employer and employee perceptions of the optimal number of weekly in-office workdays, employee turnover increased, the number of working mothers decreased, and conflicted emotions about returning to the office versus working from home prevailed (Feintzeig, 2021). Clearly, significant office worker impacts from the COVID-19 pandemic remained unresolved. While some lessened or were resolved with time, they indicate that organizations were ill-prepared for the pandemic and dispersing employees away from traditional office settings to hastily arranged workplaces in their homes.

Acknowledging that preparing for global disruptions is well beyond most contingency planning exercises, there are practical future preparedness and improved responsiveness questions that support examining pandemic-disrupted workplace practices (Bentley et al., 2021). These include more localized "crisis" events such as earthquakes,

fires, floods, and destructive weather events occurring frequently enough to raise the possibility of dispersing employees to temporarily work in their homes over the time required to repair and replace damaged organizational structures as alternatives to layoffs and dismissals. Bentley et al. argued that organizations making more significant investments in human capital create value that supports avoiding layoffs during economically stressful periods. Less specific than the physical repair of public infrastructure and business structures after a catastrophic event is employees' coping with disrupting influences of dislocation from their work sites, and physical isolation (Lin et al., 2021). Employees gathered in conventional office settings are a physical presence, continuously available and observable. Employees electronically connected to their work groups and otherwise isolated in their homes may find themselves both with increased autonomy and challenged to maintain their productivity in unfamiliar work locations, lacking accustomed interpersonal relationships, and readily available supervisor and coworker expertise (Wu, J. et al., 2021).

Proactive feedback-seeking behavior (FSB), the self-regulatory behavior of engaged employees in their daily organizational interactions (Ashford & Cummings, 1983) by administrative, technical, and professional workers, has been studied extensively in terms of in-person settings (Ashford et al., 2016) but rarely in remote locations (Griffith et al., 2018), and under sudden, externally imposed conditions. As currently conceptualized, FSB was instrumental in employee perceptions of personal competence, job performance, and learning, as well as influencing organizational social acceptance and adjustment to the workplace (Vanderberghe et al., 2021) through advice

and evaluation from colleagues and supervisors (Zhang, C. et al., 2021). While FSB intensity expectedly lessens once newcomers are acclimated to their organizations, its value may rise during uncertain situations such as the COVID-19 pandemic. In this context, Neil and Bowen (2021) argued that senior leaders are best informed through careful listening and evaluation of impacts from decisions affecting employees and support attention to employee FSB as a valuable means to satisfying leaders' needs for feedback. Consequently, experiences from the COVID-19 pandemic were essential in comparing work engagement and job satisfaction when a traditional in-office set of behaviors, FSB, is switched from an in-person context to an electronically mediated context. Recognizing the ubiquity and importance of FSB, the goal of this study was to examine pandemic-disrupted office workers' feedback environments in terms of meeting employee performance information needs, communication among employees and supervisors, work engagement, and job satisfaction. At a societal level, successful remote work arrangements may help address continuing problems with recruiting skilled workers, areas lacking higher paying jobs, and addressing considerations in supporting jobs where workers and supervisors are assigned to different locations.

Chapter 1 continues with a background section describing feedback and feedback-seeking behavior. Statements of the research problem and purpose follow. Research questions and hypotheses are discussed and supported by a theoretical and conceptual framework section. A description of the choice of a quantitative survey study and the critical variables included in the study is presented next. The essential elements of the study are then described in a definitions section. Sections on the study's assumptions,

scope and delimitations, limitations, the study's significance, and a summary close the chapter.

### **Background**

Feedback, information on an individual's performance in achieving specific goals described by Burke and Wilcox (1969), and day-to-day performance along with social acceptance by the organization, supervisors, and coworkers later added by Ashford and Cummings (1981) have a long research history related to performance improvement and self-regulation. Organizations have long used annual goal setting and monitoring through periodic evaluation and feedback reviews as elements of employee growth and performance improvement (Joughin et al., 2021). Individuals' FSB as a proactive individual self-regulatory behavior acts to reduce role ambiguity, delimit the scope of responsibility, and reveal supervisory expectations along with reducing uncertainty concerning performance toward attaining career success and promotion rewards (Ashford & Cummings, 1983, 1985). A review article (Ashford et al., 2003) summarized continued (FSB) research along with the development of a literature-based model relating FSB antecedents applicable to feedback seekers, sources, and contexts applied to specific feedback-seeking behaviors, outcomes, and moderating/mediating factors. Their latest model (Ashford et al., 2016) identified the role of feedback seeker motivation, feedback source trustworthiness, and credibility, along with the contextual antecedent of LMX, job/organizational structures, and uncertainty as determining expectations of positive and negative feedback along with FSB frequency and tactics. Proposed feedback outcomes included job performance, learning, and job satisfaction mediated by information quality,

role clarity, and feedback acceptance. Primary feedback sources based on the nature of the information being sought included the seeker's supervisor and coworkers using direct inquiry and observation as primary FSB tactics.

Feedback-seeking in remote locations has only occasionally, and relatively recently, been the focal point in peer-reviewed studies (Griffith et al., 2018; Handke et al., 2022; Warrilow et al., 2020). A potential explanation was that working remotely has historically been infrequent for most workers, an accommodation to utilize workers with specialized talents, or more frequent among sales personnel covering geographically expansive territories. While creating a more robust environment supporting remote workers, progressive developments in computing and communication technologies over the past two decades did not produce a significant shift away from traditional office locations (Dey et al., 2020). Their study noted that pre-pandemic employers may have been reluctant to permit remote work arrangements based on computer and internet costs, limiting remote work arrangements only to employees considered to deserve special consideration, and the difficulty of monitoring the work behaviors of remote workers. The same study compared employment changes between February and April of 2020 and found that in *non-telework* (jobs not able to be performed through remote electronic connections) occupations, employment declined by 15%, and unemployment rose by 9%. In occupations where *telework* (jobs able to be performed through remote electronic connections) was feasible, employment declined by 7%, and unemployment rose by 5%. In a later study, Dey et al. (2021) estimated that approximately 33% of US workers engaged in teleworking in 2020. Across the entire economy, employment fell by 16%,

and unemployment rose by 11%. These statistics suggest that remote work capabilities offered employers significant operational continuity responses to unplanned external disruptions.

LMX was described as an exchange relationship (Dansereau et al., 1975) characterized by influence without the employment of authority developed over time between leaders and members of work groups. In the FSB model (Ashford et al., 2016), it was an antecedent to the relational context between supervisors and their work group members. LMX was associated with seeking negative feedback (Chen et al., 2007), supports the use of direct inquiry FSB tactics (Lee et al., 2007), lowers image costs of FSB to employees (Chun et al., 2014), and as a predictor of FSB (Anseel et al., 2015). Peng and Lin (2016) reported a study in Taiwan that found supportive supervisory feedback environments facilitated the development of LMX relationships which fostered organizational citizenship behavior and were negatively related to workplace deviant behavior. Their study added lowered workplace deviant behaviors to the LMX outcomes and extended the research cross-culturally to a non-western setting.

The arrival of the COVID-19 pandemic challenged the prevailing office location for administrative, professional, and technical workers, literally dispersing these workers into remote (mostly personal home) locations. As represented by FSB, self-management changed from an in-person to an electronic-mediated environment, where communicating across a desk, around a conference table, or a larger in-person setting changed to a computer screen with thumbnail headshots of a small subset of the participants. Conversations required delicate turn-taking among participants to accommodate

electronic delays, the loss of facial and body expressions, and simple gestures as situational cues when attempting to add thoughts to the conversational flow (Grant, 2021; Varma et al., 2022). Rather than being part of a collective work group, participants were, in some respects, autonomous contributors separated from one another and each subject to their unshared environmental distractions. Text, phone, and email messages offered additional electronically mediated channels. However, in an experimental study, Warrilow et al. (2020) observed that face-to-face objective feedback significantly affected performance, while computer-generated and text message-delivered feedback failed to produce significant effects.

Studies examining FSB based on feedback environments during the COVID-19 pandemic have yet to appear in the literature. However, other aspects of the COVID-19 pandemic, variable work schedules (Chung, 2022), organizational identification and performance (Lian et al., 2022), occupational calling (Andel et al., 2021), videoconferencing fatigue (Bennett et al., 2021), and human capital investments (Bentley et al., 2021) indicate widening research interests. The historical paucity of research into FSB and organizational environments under conditions of high uncertainty, such as the COVID-19 pandemic, opened a gap in the FSB literature.

This study addressed this gap by examining employee perceptions of pandemic feedback environments for administrative, professional, and technical office workers. It compared these perceptions among workers remaining in corporate offices, existing remote workers, and workers dislocated by the pandemic to working from their homes. This study aimed to expand the literature to include employee ratings concerning a

valuable, self-regulatory behavior, FSB, in situations where feedback environments were rapidly changing amid external uncertainty.

### **Problem Statement**

Past research on feedback-seeking in face-to-face environments summarized by Ashford et al. (2016) expanded into flexible work settings by Griffith et al. (2018) and virtual teams by Handke et al. (2022), raised as a problem the heavy reliance on laboratory and classroom studies, i.e., on nonorganizational environments. Handke et al. specifically called for future research under hybrid and virtual working models where participants are organizational employees. Griffith et al. speculated that supervisory leadership in an electronic environment may be less critical than in a highly developed knowledge network. Ashford et al. concluded that organizations are well-advised to provide supportive, relational environments and autonomy for employees to act. Steelman et al. (2004a), in developing and validating a feedback environment instrument, noted that the strongest predictor of feedback-seeking behavior was the promotion of environmental supports for feedback-seeking on the part of supervisors and coworkers. Steelman et al. conceptualized the feedback environment to include source availability, source credibility, promotion of feedback seeking, feedback quality, feedback delivery, favorable feedback, and unfavorable feedback from supervisors and coworkers. Ashford et al. added LMX as a contextual antecedent to their literature-derived model of feedback-seeking. Griffith et al. raised the importance of feedback from work performance and technology support to the factors impacting work engagement. The conjunction of enabling technology and emerging environmental models of feedback-

seeking behavior with the disruptive effects of the COVID-19 pandemic suggested an opportunity to examine employee feedback-seeking experiences to address the research problem of a lack of attention to organizational feedback-seeking in previously rarely used non-office locations.

### **Purpose Statement**

This quantitative study aimed to compare work locations, the independent variable, through ratings by employees dispersed by the COVID-19 pandemic to remote locations with feedback environment ratings of employees who remained in conventional office settings or worked only in remote location arrangements during the same period. Dependent variables were employee ratings of supervisory feedback environments, LMX, work engagement, and job satisfaction. LMX indicated the nature of the relationship between supervisors and their employees. Work engagement and job satisfaction provided information on outcome effects among the study groups in the three locations.

### **Research Questions and Hypotheses**

This study compared office worker perceptions of feedback environments among employees in employer office locations (OL), employees that traditionally work in remote locations (RL), and employees displaced to working from their homes (HL) during the COVID-19 pandemic. Planned feedback environment variables included seven feedback environment supervisory factors from the Feedback Environmental Scale (FES). Additionally, due to the primacy of LMX as a critical contextual variable, employee-perceived LMX was measured across the same three locations using a set of

four factors from the LMX Multidimensional Measure (LMX-MDM) instrument. The final measures in the study were the employee workplace outcomes of work engagement (Utrecht Work Engagement, UWES-9) and job satisfaction (Affectivity, Burnout, and Absenteeism Scales, Job Satisfaction factor). The following research questions were formulated to support comparisons among the study groups and test whether work outcomes can be predicted based on the feedback environment and LMX measures.

RQ1: Did employees' perceptions of their feedback environment in different work locations (HL, OL, and RL) contribute to statistically significant differences in their feedback ratings?

*H<sub>0</sub>1*: Employee ratings were not statistically different among the three locations.

*H<sub>a</sub>1*: Employee ratings were statistically different among the three locations.

RQ2: Did employees' work locations (HL, OL, and RL) contribute to statistically significant differences in employees' perceptions of LMX?

*H<sub>0</sub>2*: Employee work locations did not contribute to statistically significant differences in employee perceptions of LMX.

*H<sub>a</sub>2*: Employee work locations contributed to statistically significant differences in employee perceptions of LMX.

RQ3: Did employees' work locations (HL, OL, and RL) predict employees' ratings of their work engagement?

*H<sub>03</sub>*: Employee work locations did not predict employee ratings of their work engagement.

*H<sub>a3</sub>*: Employee work locations predicted employee ratings of their work engagement.

RQ4: Did employees' work locations (HL, OL, and RL) predict employees' ratings of their job satisfaction?

*H<sub>04</sub>*: Employee work locations did not predict employee job satisfaction ratings.

*H<sub>a4</sub>*: Employee work locations predicted employee rating of their job satisfaction.

### **Theoretical and Conceptual Framework**

Theories grounding this study were based on feedback-seeking behavior (FSB), attributed to Ashford and Cummings (1983, 1985), and LMX attributed to Dansereau et al. (1975). Both theories have been expanded and continue in the literature, as indicated by recent journal articles for each theory (Cutumisu & Schwartz, 2021; Gifford, 2022; Peng & Lin, 2016; Zhang, W., et al., 2021). FSB was described as employees' behavior in managing their self-adjustment through actively obtaining feedback from multiple sources to continuously adapt and sustain their performance (Zhang, W., et al., 2021). However, this model of FSB represents decades of literature developed around in-person locations and has rarely been applied to remote locations, much less locations hastily assembled to cope with a global emergency. The first research question (RQ1) compared employee perceptions of their feedback environments by work location (HL, OL, and

RL) as a measure of each location's overall effectiveness in supporting employee FSB (Steelman et al., 2004b). Employees perceiving their feedback environments as supportive of their day-to-day needs for feedback on job-related matters were likely to both proactively seek feedback and rely on their organization's feedback environment (Ashford et al., 2016). Overall differences in employee perceptions of their feedback environments identified differences in the support provided.

LMX was a primary relational variable in FSB operation within the model proposed by Ashford et al. (2016). Graen and Uhl-Bien (1995) published a multi-domain LMX model where LMX includes leader and follower behaviors and their dyadic relationships. This model held that the strength of individual dyads' LMX, depends upon individual supervisor and follower characteristics and the quality of their dyadic relationship. Using this LMX model, Varma et al. (2022) noted that, in the COVID-19 remote work context, these dyads were challenged with limited interactions, a lack of in-person non-verbal cues, supervisors unable to observe intangible performance behaviors such as organizational citizenship and commitment, and infrequent opportunities for subordinates to engage upwardly with supervisors. Research question RQ2 compared employee perceptions of their LMX relationships with their supervisor in each of the three work locations as a measure of the strength of the LMX relationship. Alongside an individual's feedback-seeking disposition and the reliability of feedback sources, LMX was both a contextual antecedent of FSB (Ashford et al., 2016) and a multidimensional relational construct between supervisors and their subordinates (Liden & Maslyn, 1998a). Employees with strong LMX relationships with their supervisors may likewise have

access to highly effective feedback based on positive affect, loyalty, employee work contribution, and professional respect for the supervisor. These additional relational dimensions may add to positive perceptions by employees of their feedback environments. However, the COVID-19 displacement of workers out of face-to-face organizational office locations may have diminished the effectiveness of LMX relationships among displaced employees. Differences in LMX ratings among the three work work locations captured the extent and direction (positive or negative) of these differences.

Work engagement in task performance, contextual performance, creative performance, and learning, along with job satisfaction, are potential outcomes of successful FSB (Ashford et al., 2016). Schaufeli et al. (2006a) described work engagement as a positive psychological state of mind characterized by vigor, dedication, and absorption. Employees experience work engagement as a persistent and pervasive state of good feelings and clarity of thought in relation to their work. High energy levels and mental resilience characterize vigor. Dedication involves experiences of work significance, enthusiasm, inspiration, pride, and challenge. Absorption describes the fullness of concentration and pleasant engrossment with one's work. Schaufeli et al. (2006a) characterize work engagement as the opposite of burnout. Research question RQ3 examined the relationship between the employee's perception of their feedback environment and their assessment of their work engagement. Effective feedback environments' relevance in promoting new employees' adjustment to the organization, reducing uncertainty, and as an aid in job learning (Ashford et al., 2016) suggest that

perceived high levels of work engagement were related to positive perceptions of feedback environments (Lyons & Bandura, 2021).

Similar to work engagement, job satisfaction, as described by Credé (2018), involves affect and cognition. It was proposed that feelings (affect) concerning job experiences influence an employee's thoughts (cognition) and evaluation of the job and how one feels about the job. Unpleasant job experiences in the workplace (angry customers, faulty equipment, etc.) and pleasant job experiences (customer gratitude, modern equipment, etc.) influence one's appraisal of job satisfaction. Evaluation of persistent aspects of the job (pay, benefits, workplace, supportive supervision, etc.) also positively and negatively affect one's feeling concerning overall job satisfaction. Ashford et al. (2016) listed job satisfaction as an outcome of feedback seeking, especially among employees reporting more feedback. The final research question, RQ4, examined the relationship between the employee's perception of their feedback environment and their assessment of their job satisfaction.

Chapter 2 presents a more thorough explanation of FSB, LMX, work engagement, and job satisfaction, along with examining the small number of articles on FSB operation in remote work locations. Remaining, however, was the need for studies set in remote work contexts and the remote FSB environment imposed on millions of office workers worldwide in response to the COVID-19 pandemic. While comparing workers' FSB environments before and after the pandemic diaspora was beyond the scope of this study, comparing similar workers' ratings of their FSB environments contributes to the literature on remote work settings and potential adjustments to meet feedback

environment challenges. Selecting workers who were displaced to working in their homes, workers who remained in their pre-pandemic offices, and workers with continuing remote work arrangements on the ratings of their FSB environments begins to offer some insight into organizations' ability to move workers to remote locations capable of supporting their need for performance feedback. Including a companion evaluation of LMX dimensions among the same three groups examines the pandemic impact on a key FSB contextual variable. Measures of work engagement and job satisfaction add outcome information to the study.

### **Nature of the Study**

Pandemic effects on employee behavior, due to their uniqueness and globally disruptive nature, do not easily lend themselves to experimental methods which require a prohibitively high level of procedural rigor, such as isolating effects by holding non-experimental variables constant (Creswell & Creswell, 2018). Further, pandemic uniqueness forms a natural setting that is difficult to simulate and impossible to duplicate ethically. However, the pandemic-induced sudden reliance on remote workplaces offered an opportunity to quantitatively examine employee perceptions of an emerging alternative to work locations, the individual's home. While limited to correlational and regression analysis, these observational methods present useful and pragmatic approaches to examining individual and group behavioral differences across larger populations and comparisons across multiple groups (Edmonds & Kennedy, 2017). Statistical methods of correlation and regression, along with a comparison of group means, identify similarities and differences among groups. Starting from work location (HL, OL, RL) as the primary

independent variable, ANOVA analyses revealed differences in employee perceptions of each location's adequacy as a feedback environment and their effectiveness in meeting LMX needs. Regression analyses on employee perceptions of their work engagement and job satisfaction added outcome measures that offer further criteria supporting the relative efficacy of each location.

Participants were recruited through use of a commercially available participant pool. Employee work locations (employees in employer office locations - designated as OL, employees that traditionally work in remote locations - designated as RL, and employees displaced to working from their homes - designated as HL) were the primary independent variables for this study (Edmonds & Kennedy, 2017). The Feedback Environment Scale (FES) by Steelman et al. (2004b), measuring employee perceptions of their feedback environment, was the primary dependent variable to determine the existence and magnitude of effects compared across the three locational environments (OL, RL, and HL). Using the same locations as the independent variable, LMX effects measured by the LMX-MDM scale (Liden & Maslyn, 1998b) was a second dependent variables. FES and LMX-MDM scores were used in regression analyses to test their ability to predict work engagement scores using a rating instrument developed by Schaufeli et al. (2006b) and job satisfaction using a rating instrument scale developed by Iverson et al. (1998b).

Biographic and demographic variables were collected to identify organizations by Principal Business (Commercial, Health Care, Government, Manufacturing. etc.), participant Job Titles (occupations), years in the job (longevity), and Months in the work

location. Demographic variables were collected to identify participant age and indicate their care responsibilities for minor children. Participation in the study was open to full-time employees aged 18 years and older holding jobs typically performed in office environments from January 2021 through December 2022. Participants must have worked in at least one of the three work location conditions, HL, OL, or RL, for a minimum of six months.

### **Definitions**

#### **COVID-19 (Coronavirus Disease 2019).**

According to the Centers for Disease Control and Prevention (2021), a highly contagious disease caused by the SARS-CoV-2 virus was discovered in December 2019 in China. It rapidly spread worldwide with cold, flu, and pneumonia-like symptoms in the lungs and respiratory system. Although most people experienced mild symptoms, older adults, and people with a variety of underlying medical conditions experienced severe illness and death.

#### **Feedback.**

An individual and organizational informational resource (Ashford & Cummings, 1981) and communication of knowledge to individuals of their job performance (Hackman & Oldham, 1975).

#### **Feedback Environment.**

The context for day-to-day supervisor-subordinate and coworker-to-coworker feedback processes (Steelman et al., 2004a). The construct emphasizes immediate feedback processes rather than those of formal performance appraisal feedback sessions.

Feedback environment in this study was a dependent variable measured across three locations (in-home office, traditional organizational office, and pre-existing remote offices) and was measured by the Feedback Environment Scales (FES).

### **Feedback-Seeking Behavior.**

Conscious effort toward determining correct and adequate behaviors that gain valued end states through direct inquiry, observation, and indirect inquiry (Ashford et al. (2016).

### **Job Satisfaction.**

Credé (2018) described job satisfaction as a job attitude related to changes in task performance based on influences on work motivation. In this study, it was one of two dependent outcome variables.

### **Leader-Member Exchange (LMX).**

Operationalization of the concept that effective leadership processes occur when leaders and followers can develop partnerships (Graen & Uhl-Bien, 1995). In this study, it was a dependent variable and significant contextual antecedent of feedback-seeking based on the extra-role relationships between feedback seekers and their supervisors (Ashford et al., 2016).

### **Work Engagement.**

A job attitude that is identified with cognitive preoccupation, engagement, and concern with a person's job (Credé, 2018). In this study, it was the second dependent outcome variable.

### **Assumptions**

Four assumptions were made in designing this study. First, it was assumed that across the population of office workers, circumstances associated with their jobs commonly raised questions not answerable solely from work itself and required consultation with supervisors and coworkers. This suggested that the target population was people in jobs requiring interpersonal interactions. Understanding of organizational practices, task structure and responsibility, collaboration requirements, interpreting work standards, acceptable interpersonal behaviors, and decision-making authority described in abstract terms may be insufficient to permit employees to continue and complete tasks, thereby requiring some level of feedback-seeking.

A second assumption was that jobs requiring feedback were traditionally performed in organizational office locations or by experienced workers in remote locations prior to pandemic restrictions. The nationwide, perhaps even worldwide, use of stay-at-home government orders impacting undifferentiated populations suggested broad-based inclusion of feedback-seeking workers during the study's target dates.

A third set of assumptions was that the survey instruments Feedback Environmental Scale (FES), Multidimensional Measure of Leader-Member Exchange (LMX-MDM), Utrecht Work Engagement Scale (UWES-9), and the Job Satisfaction Scale from the Affectivity, Burnout, and Absenteeism Scales were within the abilities and patience of prospective survey respondents. All instruments were developed and validated with male and female full-time employees, and mean ages of mid-thirty years as participants. Only the LMX-MDM used any student participants during development

(Liden & Maslyn, 1998a). Combined, the four instruments total 58 items and were likely to require between 15 and 20 minutes to complete.

The final assumption concerns data analyses planned to be ANOVA and regression. All survey item responses were Likert-type scales approximating interval levels of measurement. Responses were screened for extreme outliers, and approximately equal variances between the individual location groups. As the survey was completed online, it was expected that responses between location groups and within individual location groups were independent.

### **Scope and Delimitations**

Recognizing the lack of organization-based studies on feedback supporting workers in locations other than organizational offices, this study sought to make use of the displacement of millions of office workers during the COVID-19 pandemic to compare employee perceptions of three major employee work locations, organizational workplace offices, pandemic home offices, and remote worker locations established prior to the pandemic. Feedback's importance, regardless of worker location, concerning knowledge of performance results was associated with critical psychological states and acts as a mediator between core job dimensions and work outcomes (Hackman & Oldham, 1975). Conceptually, feedback-seeking by individuals involves employees seeking feedback, their targets for feedback, and the context where the feedback is sought (Ashford et al., 2016). The generalizability of study results was addressed by soliciting participants who include employees representing the three work locations, organization offices, employee home offices, and pre-pandemic remote work locations. Selected

participants were drawn from jobs requiring coworker interaction to accomplish customer-facing and non-customer-facing job tasks. Participants' perceptions of their feedback environments were measured and compared across the three locations. A principal contextual variable, LMX, was also measured for each participant and compared across the three locations to determine its relative contribution to employee ratings of their feedback environments. Job outcome measures of work engagement and job satisfaction were analyzed to determine if they can be predicted from their feedback environment ratings.

Results from this study were intended to add to the emerging literature on remote workers. Examining worker ratings of their feedback environments was planned to identify inherent feedback-related strengths and weaknesses with respect to common work locations. Measures of LMX across the same locations were expected to identify LMX factors with stronger, or weaker, effects associated with feedback environment ratings. The degree to which feedback environment ratings predict job outcomes potentially determines the relative suitability of each location to employee productivity.

This study did not address specific feedback-seeking behaviors of seeking frequency, seeking tactics, and preferences for positive or negative feedback (Steelman et al., 2004a). All are relevant aspects of feedback seeking but are judged to be better addressed in future work as their inclusion would require substantially larger samples prior to investigating the location effects of feedback environments themselves. Steelman et al. (2004a) also identified moderators of feedback-seeking behavior (individuals' sense of empowerment, credibility of feedback sources, feedback-seeking effort, task

interdependence, and uncertainty avoidance) that were likewise not considered in this study as they, too, require much larger samples with specific attributes. However, the above factors in this study were likely to be represented among the participants. Others may find it worthwhile to tailor future studies to include or focus on these factors.

### **Limitations**

Consistent with this study's observational approach, there were no experimental manipulations or interventions. Its hypotheses were limited to comparisons among variables and testing for predictions of work engagement and job satisfaction. Thus, while the extent of associations between the study variables were reported, there were no measures of the influence variables have on one another. Further, while soliciting participants was intended to attract individuals performing tasks requiring similar degrees of collaboration, the degree of collaboration was not controlled and could vary widely. As participants represented many organizations, the degree of feedback and feedback-seeking within the organizations was also expected to be highly variable. Summation of individual scores was influenced by the self-report nature of the data collected and was subject to individual's interpretations of their experiences. The sample was a limited number of participants sufficient to support the planned analysis. Compared with the millions of office workers displaced by the COVID-19 pandemic, the study sample was small, and represented only a subset of potential participants. Demographic variations among participants, age, childcare responsibilities for minor children, organizational and job tenure, as well as different organizations and job titles, were intended to increase the heterogeneous nature of the sample. Soliciting office workers from multiple

organizations with no restrictions on age, job titles, tenure, and organization type was intended to be representative of the broader population. It also recognized that for this study, despite being consistent with many of the works cited in this study, it was not a random sample fully representing the true population. It was, however, a collection of participants and a small segment of the population of office workers during the pandemic (Creswell & Creswell, 2018).

### **Significance**

During 2021 and 2022, organizations began to bring displaced office workers back into organizational office settings indicating organizational preferences for having these workers return to conventional office settings (Bindley, 2022). However, early reports from the field indicated that the number of days comprising an in-office work week has varied, with employees suggesting two and employers suggesting three days. Masking and other protective protocols likewise varied based on government mandates, state and federal, along with number of vaccinations, rules regarding when to stay home, and questions on return-to-work questionnaires (Cutter, 2022). A return to the office trend had appeared and was growing, but not as swiftly and decisively as earlier work-from-home orders were imposed (Feintzeig, 2021). These events suggest a continuing need to examine working in various locations. With the popularity of splitting weekly work time between employer and employee home offices, the hybrid return to work model further argued for supporting individual workers across two or more locations.

This study contributed to the workplace environment literature by examining the supports for a fundamental job characteristic, feedback, from the perspective of

comparing employee appraisals of the three most common locations, working in organizational offices, working from employees' homes, and working continuously away from both. Noting the emergence of hybrid work arrangements, these may indicate that vexing problems associated with valued employees, constrained by family and personal mobility conditions, may find mitigation where work locations are less restricted to organizational sites. This study's comparison of three work location variations may encourage consideration of schedule and work location variations beyond the in-office, 40-hour work week. Contributions from studies of employee reactions to environmental factors are only a starting point for investigations that may beneficially expand work locations and reduce the obligation for daily transport between residences and workplaces. Adding effective work location variations may increase employee and employer workforce collaboration options by decreasing the need for physical presence in the workplace.

### **Summary**

Feedback's place as a critical job characteristic has been recognized for decades, beginning with Hackman and Oldham's (1975) publication of their Job Diagnostic Survey. A short time later, a parallel line of research began to investigate the behavior of individuals in seeking feedback (Ashford & Cummings, 1981). Over more than 40 years, both lines of inquiry have matured to describe the characteristics of individuals seeking feedback, their preferred sources for feedback, and the contextual factors affecting feedback-seeking outcomes. A recent model of the feedback process (Ashford et al., 2016) drew on this accumulated research in its construction.

Research on individuals' feedback-seeking in office locations is plentiful and comprises most of the research literature. However, a respectable body of studies has developed on feedback in virtual teams over the most recent two decades (Handke et al., 2022). Among more recent studies, that step outside the conventional office location to examine feedback in remote, away from organizational office settings, were Griffith et al. (2018), Warrilow et al. (2020), and Handke et al. (2022).

During the COVID-19 pandemic, the widespread availability of pre-existing, high-speed internet services, and home computing equipment in the United States enabled shifting jobs from organization office locations to employees' homes. Press reports and economic measures provided some indication of the success of these relocations but could barely hint at the underlying disruption and compensatory actions to and by the relocated individuals (Chaney & Torry, 2020; Cutter, 2021; Feintzeig, 2021). It is expected that a broad set of research agendas, Gifford (2022), is already increasing and will continue to grow.

Returning to consideration of an essential job characteristic, feedback, the pandemic-induced locational changes suggested that feedback environments underwent modification to support the sudden change to remote work arrangements. This study was planned to identify characteristics of feedback environments among the three most prevalent work locations, organizational offices, traditional individual remote workers, and pandemic-displaced employee homes. The visible results of pandemic displacements that over two years, the economy did not crash, business failures were infrequent, and employees were productive suggested that the need for immediate, task-directed

feedback, and social support feedback were met (Dey et al., 2021). What was not known was the nature of remote work environments that enabled these accomplishments and was the target of this inquiry.

Chapter 2 provides a more extensive discussion of the literature on feedback, employee feedback-seeking, and their relationships with LMX, work engagement, and job satisfaction. The chapter begins with a restatement of the research problem, a summary of the literature supporting the problem's relevance, and a preview of the chapter's major sections. The literature search strategy is presented along with the search arguments used in the literature search. Literature describing the theories in the study, along with an analysis of their use in ways similar to the current study, and rationale for choosing the theories is discussed. A review of the literature related to the critical study variables and the rationale for their selection is presented. The section closes with studies related to the research questions. The chapter ends with a summary of the major themes from literature, and how the study addressed the gap in the literature.

## Chapter 2: Literature Review

### **Introduction**

Feedback, its place in supporting effective collaboration among workers, their supervisors, and coworkers, while having been studied extensively over more than 50 years (Ashford & Cummings, 1981; Burke & Wilcox, 1969; Zhang, C. et al., 2021), has most often been conducted in the field within organizational office settings and only occasionally in remote locations (Griffith et al., 2018; Handke et al., 2022; Warrilow et al., 2020). This choice of settings may be explained by the limited opportunities for remote work except as an accommodation for workers with specialized talents, or jobs requiring extensive travel to remote locations. Development of a robust technology infrastructure, including high-speed internet connections, application capabilities supporting wide-ranging functionality over these internet connections, dispersed meeting software, and powerful laptop computers, provided an environment capable of remotely supporting most in-office tasks. The COVID-19 pandemic and its accompanying state of emergency and stay-at-home orders effectively shut down offices and mandated much of the population to physically isolate themselves within their homes. A natural experiment was created where organizations were forced into the almost overnight implementation of remote work with the full range of supporting computing and communication technologies. Not known was the extent to which core job characteristics (Hackman & Oldham, 1975), such as feedback, were maintained, disrupted, or replaced during this enforced departure from familiar office settings. This study examined ratings of one core job characteristic, feedback, for pandemic-displaced office workers to their homes (HL)

compared with workers remaining during the pandemic in conventional employer office locations (OL), and a third group of workers, who prior to and during the pandemic continued to work remotely (RL). The comparison's purpose was to assess each group's evaluation of their feedback environments on a set of common characteristics during the pandemic emergency and stay-at-home period. The evaluations and comparisons were expected to provide information useful in supporting differing and changing workplace settings.

Conceptualizations of feedback environments included the multifactor (FES) measure (Steelman et al., 2004b) of feedback from supervisors across dimensions of credibility, quality, delivery, favorable versus unfavorable information, feedback source availability, and promotion of feedback seeking behavior. Research has supported the notion that feedback provides individuals information on their day-to-day performance and social acceptance and is proactively sought (Ashford & Cummings, 1981, 1983). Further extensions were the use of direct inquiry and observational strategies to reduce uncertainty, achieve compatibility between individual and organizational goals, and individuals' image management (De Stobbeleir et al., 2011; Parker & Collins, 2010). Recent work by Lian et al. (2022) exploring COVID-19 workplace uncertainty concluded that companies can respond positively to unfavorable situations by evoking organizational identification through reducing employee fears of layoffs, fostering open communications, and participative decision-making suggesting a two-way approach, from feedback seekers to supervisors and coworkers and from supervisors to employees. At the departmental or team level, Li and Tangirala (2022) concluded that leaders in

response to external challenges should encourage employees' prohibitive voice (error identification and correction) as early responses followed by employees' promotive voice (innovation and adaptation) to arrive at adaptive solutions suggesting a case for bidirectional feedback.

An extensive model of FSB based on a review of the feedback literature by Ashford et al. (2016) identified personal antecedents associated with feedback-seeking employees (cognitive preferences, demographic characteristics, disposition, emotions, and motivation), the targets of their search (affect, credibility, leadership style, and trustworthiness), and the context in which feedback is sought (culture, LMX, relationships, job or organizational structure, and uncertainty). Prominent among contextual antecedents was the relationship between seeker and target represented by LMX. Varma et al. (2022) listed as LMX implications in remote locations the limited interaction between supervisors and employees, video-conferencing limitations on perceiving and interpreting body language and verbal cues, the difficulty of perceiving organizational commitment and organizational citizenship behavior, and the difficulties of employees engaging in influencing their supervisors.

Feedback contextual factors could be considered less important environmental descriptors excepting that they support productive feedback environments contributing to successful feedback-seeking behaviors (FSB) which collectively lead to work engagement and job satisfaction (Ashford et al., 2016). A meta-analysis (Mazzetti, et al., 2021) intended to identify practical guidelines for increasing work engagement established that a strong correlation ( $r = .60$ ) exists between work engagement and job

satisfaction. Perceived organizational FSB support has been shown to enhance work engagement of first-line hospital managers when they engaged in FSB through direct inquiry and situational monitoring (Jankelová et al., 2021). Lyons and Bandura (2021), taking a manager as coach perspective, developed an action guide calling for managers and employees to engage in feedback among activities to foster work engagement.

Employer office work environments characterized by physical face-to-face employee and supervisory presence were seemingly ideal for providing prompt and continuing feedback (Steelman et al., 2004a). The COVID-19 pandemic spawning of virtual work environments in employee homes demonstrated that, at a minimum, organizations could function with their employees located away from traditional office locations (Dey et al., 2021). Furthermore, engaging predominantly off-the-shelf technology supported communication and collaboration among members of previously collocated work teams (Handke et al., 2022). Less clear were employee perceptions of the comparative effectiveness of these remote locations in satisfying employee needs for day-to-day feedback support. Secondly, employee perceptions of LMX representing mutually supportive supervisor-employee relationships and as a contextual feedback-seeking antecedent may be constrained in remote locations based on limited interactions between employees and supervisors (Varma et al., 2022). Feedback-seeking outcomes of work engagement and job satisfaction also have yet to be demonstrated as similar in remote locations to those of employer office locations (Ashford et al., 2016; Jankelová et al., 2021).

Chapter 2 continues with a deeper examination of the FSB and LMX literature supporting this study beginning with the literature search strategy employed for this study. The theories forming the foundation for this study are presented, describing the origins, major propositions, and an analysis of how the theories apply to this study. A literature review describing studies related to the concepts and variables is presented as support for the choices of theoretical constructs and methodology and with respect to the research questions. The chapter closes with a summary of the chapter's major themes based on what has been published and what remains unexplored, along with the questions planned to be explored in this study. A transition to chapter three connects these questions to the chapter three methods.

### **Literature Search Strategy**

The literature search began with general terms singly and combined, including *self-regulation, workplace, job performance, work performance, and employee performance*. This was followed by narrowing the search scope with terms of *remote workers, telecommuting, feedback, the COVID-19 pandemic, and feedback environment*. Further refinement used the search term *feedback-seeking behavior*. Initial searches limited results to articles published from 2016 through 2022. Earlier works, dating from 1975 to 2015, as cited in articles chosen for inclusion in this study were selected based on their relevance to supporting theories or concepts underlying the study. Excepting seminal papers on feedback-seeking behavior (FSB) and LMX, all works contained in this study that are pre-2000 relate to feedback environment, work engagement, and job satisfaction measures.

Research using the general terms was extensive as were the available articles with the narrower search terms excepting COVID-19. However, COVID-19 articles have begun to appear. The most frequently encountered missing area was in articles broadly considering feedback environments. Ashford et al. (2016) review of feedback-seeking studies was an assemblage of an extensive list of much narrower articles. Taking a cue from the Ashford et al., (2016) article, the post-2016 searches adopted a similar strategy which entailed compiling a list of all articles with feedback as a keyword regardless of the context. From this list, approximately 100 articles were selected on some 30 topics. Not all are cited in this study.

Databases consulted were Academic Search Complete, Academy of Management Annual Proceedings, APA PsycArticles, APA PsycBooks, APA PsycExtra, APA PsycInfo, APA PsycTests, Annual Review of Clinical Psychology, Annual Review of Psychology, Annual Review of Organizational Psychology and Organizational Behavior, Business Source Complete, eBook Collection (EBSCOhost), Health and Psychosocial Instruments, Mental Measurements Yearbook with Tests in Print, Open Dissertations, and Wall Street Journal Online. Search engines included EBSCO Connect, EBSCO Research Databases, Thoreau Multi-database Search (EBSCO Discovery Service), Google Scholar, Newspaper Source, and ProQuest.

### **Theoretical Foundation**

The theories and concepts that ground this study included the Ashford et al. (2016) conceptualization of feedback-seeking behavior (FSB) and Peng and Lin's (2016) interpretation of LMX theory.

### **Feedback-Seeking Behavior (FSB)**

An early description of FSB as an individual resource differing from feedback as an organizational resource was introduced by Ashford and Cummings (1981). Their conference paper suggested individuals seek feedback through observational monitoring and direct inquiry built on feedback's relevance (Nadler, 1977). Individuals' adoption of organizational goals as well as personal goal striving confer importance on feedback information useful in correcting behavioral errors and maintaining progress toward goal achievement. Similarly, Bandura's (1977) experiments on self-efficacy and mastery offered further support of the value of feedback in assessing progress toward mastery and uncertainty reduction. Children as young as six to eight years in an experimental setting intuitively used observational monitoring of other participants to evaluate their own task progress (Halisch & Heckhausen, 1977). The experimenters interpreted their results as both reducing uncertainty and regulating effort. Ilgen and Knowlton (1980) called for greater attention to communicating feedback noting that existing feedback processes focused on goal setting while ignoring the importance of supervisors' role in performance evaluation. In their early work, Ashford and Cummings (1981) concluded that a feedback-seeking strategy of active inquiry was associated with individuals' high personal motivation and perceptions of high feedback value. Supervisory behavior was hypothesized as conditioning an individual's preference of feedback source. Supervisors initiating structure and demonstrating consideration for subordinates were the preferred source. When these conditions were not met, individuals were likely to use social sources (coworkers and others) as feedback sources. More recent studies (Ashford et al., 2003;

Ashford et al., 2016) have sought to organize the extant literature into a comprehensive FSB model. While research has continued to the present (De Stobbelier et al., 2020; Handke et al., 2022; and Jankelová et al. 2021), this model, with its recognition and explanation of antecedents to FSB, was useful as an FSB theoretical platform for this study. Organizing literature on antecedents by feedback seekers, their sources, and the context in which feedback is sought provided a similar set of conditions for comparing the different feedback environments of this study.

### ***FSB Development***

Conceptually, FSB is related to proactivity, socialization, managerial effectiveness, and impression management (Ashford et al., 2016). Proactivity as described by Grant and Ashford (2008) involves feedback-informed, self-initiated actions directed by the feedback seeker toward the environment to achieve goals. Socialization includes acclimating to new organizations, groups, and individuals along with restructured work relationships guided by direct inquiry and monitoring feedback centered on objectives and goals aligned with person-environment fit (Parker & Collins, 2010). Managerial effectiveness, in terms of leader socialization, includes subordinate feedback monitoring during new leader assimilation (Manderscheid & Ardichvili, 2008) and, more recently, the mediating role of leader feedback-seeking as moderated by subordinate expertise when assessing leader effectiveness (Chun et al., 2018). Impression management (Moss et al., 2003) was characterized by three-constructs of feedback management behavior where good performers were likely to engage in feedback seeking while poor performers were likely to engage in feedback mitigating or feedback avoiding

behaviors. Ashford et al. (2016), in their model, described three groups of antecedents (feedback seeker, feedback source, and feedback context), feedback-seeking moderators and behaviors, outcome mediators and moderators, and the outcomes themselves.

### ***Seeker Antecedents***

Seeker antecedents (Ashford et al., 2016), significant factors representing characteristics associated with feedback-seeking persons, include disposition, cognition, demographics, motivation, and emotion. Prominent seeker dispositional antecedents include performance-focus (Performance Goal Orientation, PGO) and learning-focus (Learning Goal Orientation, LGO) along with conscientiousness and neuroticism personality characteristics. While the relationships among PGO, LGO, and FSB are complex, an approach orientation suggests pursuit of positive outcomes and an avoidance orientation suggests avoiding negative outcomes (Janssen & Prins, 2007). In a study by Park et al. (2007), goal orientation's effects on diagnostic (corrective), normative (social comparison), assurance (self-validating) feedback, and no feedback were examined. Individuals with LGO and performance-prove orientations (seeking to demonstrate competence) sought diagnostic and normative feedback. Others with performance-avoid orientations (seeking to avoid demonstrating incompetence) preferred assurance feedback or no feedback. Both Park et al. (2007) and Teunissen et al. (2009) reported that perceived costs and benefits appeared to mediate feedback-seeking strategies.

Seeker personality factors associated with the FSB literature include conscientiousness, extraversion, neuroticism, and openness to experience,

(Krasman, 2010; Parker & Collins, 2010). Conscientiousness was associated with direct and neuroticism with indirect supervisory inquiry, while extraversion was associated with both direct and indirect inquiry (Krasman, 2010). FSB targeting coworkers as sources reported was both direct and indirect, and openness to experience predicted FSB targeting both supervisors and coworkers. Parker and Collins reported finding direct inquiry and monitoring FSB associated with conscientiousness.

Seeker cognition was represented by the seeker's cognitive style (an innovative as opposed to adaptive style), perceptions of feedback utility (the overall usefulness of acquired feedback), and feedback orientation (viewing feedback positively, processing feedback mindfully, awareness of others' s views, believing feedback valuable, and accountability to act on feedback). De Stobbelier et al. (2011) concluded that an innovative cognitive style with organizational support for creativity could increase creative performance, and a wide span of feedback inquiry positively mediated this performance. Whitaker and Levy (2012) conducted a study on the effects of feedback quality determining that high-quality feedback moderated by a learning goal orientation (LGO) was related to perceptions of feedback utility and encouraged additional FSB. Role clarity mediated feedback-seeking behavior to positively affect task behavior and organizational citizenship behavior (OCB). Dahling et al. (2012) found that supervisors with supportive feedback environments led employees to develop feedback orientations which were related positively to feedback inquiry along with improved job performance and LMX).

Demographic variables associated with FSB include age, organizational tenure, gender, and race. Finkelstein et al. (2003), in a longitudinal study of organizational newcomers, found that younger employees were more likely to use covert (monitoring) information gathering strategies while older workers favored overt (direct inquiry) strategies. A study of new managers in multi-national organization subsidiaries found that they were more likely to choose monitoring over direct inquiry, possibly in response to a perceived need to maintain a reputation for competence (Barner-Rasmussen, 2003). This same study also found that feedback-seeking declined as tenure increased. Allen et al. (2020), using a P-E fit perspective, concluded that establishing a mentoring culture between older and younger workers could benefit older workers through younger workers knowledge of changing workplace demands (technology and product preferences for example), and older workers benefitting younger workers through sharing practical experience in the organization's critical competency areas. Miller and Karakowsky (2005) conducted a study to examine gender influences in feedback seeking. Their findings were the gender of the feedback seeker, the gender composition of the group, and the gendered nature of the task all influence an individual seeking performance-related feedback from team members. A study by Roberson et al. (2003), among African American managers, found that the experience of stereotype threat was associated with increased use of a monitoring strategy for seeking feedback and a greater degree of feedback discounting.

Feedback seeker motives can be organized under instrumental (goal achievement), ego (protecting one's self-esteem), and image (protecting one's public

image) headings (Ashford et al., 2003). Ego and image FSB costs were perceived to be less when moderated by perceptions of high instrumental value of feedback, and greater when instrumental values were perceived to be lower (Hays & Williams, 2011). Additionally, this study examined the effect of source trustworthiness on feedback-seeking costs with the result that study participants were less willing to accept higher feedback-seeking costs based on trust than based on instrumental value.

Taking a somewhat different approach, Anseel et al. (2007) conducted a theoretical review of FSB motives and social psychology self-motives. Similarities include evaluative behavior being driven by motivational striving, primary motivators of uncertainty reduction, goal achievement, and self-esteem, activation of motives by situational variables, motivation affected by antecedent variables, and individuals' control over the influence of motives. The authors suggested that the overlap between the two theoretical bases supported considering integrating them in future studies.

Emotion-related variables include emotional competence, mood, and attachment style. Kim et al. (2009) found a positive association between proactive FSB and emotional competence. Proactive behavior also was positively associated with task effectiveness and social integration. Employees with high autonomy and high emotional competence were likely to seek feedback by developing relationships with their supervisors which translated into positive task effectiveness and social integration. Gervy et al. (2005) investigated both positive and neutral mood influences on feedback-seeking. Their results indicate that when feedback may serve long-term goals, positive mood encourages self-assessment. Conversely, when feedback was not sufficient to

inform long term goals, positive mood encourages short-term, affective goals. The study authors suggest that positive mood promotes realistic self-assessment when feedback is perceived as useful. Allen et al. (2010) tested anxious attachment effects on productivity among doctoral students and their faculty mentors resulting in finding that higher anxious attachment was associated with less feedback seeking and less feedback acceptance. In this study feedback acceptance was associated with the quality and frequency of faculty feedback. Greater feedback frequency was associated with doctoral student productivity. Taking a different approach to attachment effects on feedback-seeking, Wu et al. (2014) investigated attachment styles when employees sought feedback from peers in team environments. Their results indicated higher attachment anxiety (preoccupation with relationships) led feedback-seekers to seek peer feedback while higher attachment avoidance seekers (discomfort with relying on others) were less likely to seek peer feedback. Higher anxiety feedback-seekers also benefitted more from feedback as demonstrated by higher performance. Hepper and Carnelley (2010) in a study of attachment orientations on feedback-seeking found that anxious individuals sought negative feedback and failed to seek positive feedback while avoidant people focused on negative feedback. Secure individuals (confident and high in self-esteem) sought positive feedback.

### ***Source Antecedents***

Source antecedents, significant factors representing characteristics associated with people sought out to provide feedback, include leadership style, credibility, and trustworthiness (Ashford, et al., 2016). Source antecedents' relationship with leadership

factors suggest a research focus of feedback-seeker behavior toward direct supervisors as primary sources in research (Barner-Rasmussen, 2003; Dahling et al., 2012; Kim et al., 2009). Leadership style, especially transformational (Bass & Riggio, 2006) and authentic (Gardner et al., 2021; Qian et al., 2012) where leaders focus on individual consideration and building honest relations with their followers provide a basis for encouraging feedback-seeking.

Attempting to fill the gap surrounding peer-sourced feedback, De Stobbeleir et al. (2020) examined the implications of peers as feedback sources. Their results indicated that peer feedback seeking produced value for both the individual seeker and the team. When tasks were interdependent and in psychologically safe settings, feedback-seeking produced higher-value at lower ego and reputational costs. Both seekers and the group realized positive effects on supervisory evaluations of the seeker and on team creativity. Feedback-seeking among peers, based on enhanced relations among seekers and sources, led to improved performance of highly interdependent tasks along with greater group creativity.

Supervisor trustworthiness as perceived by the feedback seeker (Hays & Williams, 2011) was shown to be positively related to feedback-seeking behaviors. However, their results also suggested the perceived feedback value, as an indication of the source's credibility, more strongly affected decisions to seek feedback from the source than trust. A more recent study (Karakowsky et al., 2020) using a signaling theory model demonstrated that leader humor positively impacted affective and cognitive trust thereby encouraging follower feedback-seeking.

A study by Morrison and Vancouver (2000) showed that feedback seekers with high needs for achievement responded more strongly to variations in source expertise. Whitaker and Levy (2012) noted credibility as a component of quality gains importance for complex jobs and situations where employees operate autonomously as in this paper's pandemic setting. They suggest their results indicated feedback sources providing informative and performance enhancing information motivated employees to seek and use feedback.

Lee and Kim (2021) in a study of internal communications among employees, their supervisors, and executives considered communications characterized as symmetrical (interpersonal exchange) in contrast to asymmetrical (top-down exchange). Their findings were that symmetrical communications lead employees to seek more feedback from different interpersonal sources including supervisors, coworkers, and peers in other departments, which in turn enhanced creativity.

### ***Contextual Antecedents***

Contextual antecedents in environments where feedback-seeking occurs include relational factors supporting feedback-seeking, structural factors of specific jobs and organizations, and workplace uncertainty (Ashford et al., 2016). An instrument, the Feedback Environment Scale (FES) developed by Steelman et al. (2004b) presents a more comprehensive perspective with items measuring seven hypothesized facets describing the feedback environment. These facets include source credibility, feedback quality, feedback delivery, favorable and unfavorable feedback, source availability, and

promotion of feedback seeking. As the FES spans a wider range of considerations beyond contextual antecedents a more extensive discussion appears later in this paper.

LMX as a relational factor included the likelihood of negative feedback-seeking (Chen et al., 2007), more frequent use of direct inquiry tactics (Lee et al., 2007), decreased feedback-seeking costs (Chun et al., 2014), and as a significant factor in feedback-seeking behavior (Anseel et al., 2015). Extending LMX to include team members (TMX), Lan et al. (2020) argued that FSB was separately affected by exchanges among team leaders, feedback seeking followers, and peer team members. The study authors contended that FSB exchanges between the supervisor and a feedback-seeking employee, between peer team members and a feedback-seeking employee, and between the supervisor and other individual team members indicate the feedback-seeking employee's social position and corresponding FSB motives. When any of the three relationships was out of balance with the others in an environment characterized by high task interdependence, job performance was likely to be affected. Results from the study affirmed the importance of FSB in adjusting to new work environments, initiating changes, and positively affecting job performance.

Various studies reported job and organizational structural antecedents to FSB. Work by De Stobbelier et al. (2011) reported a linkage with the results individuals can gain in enhancing their creative performance by seeking feedback on their work from supervisors, peers, and sources beyond organizational boundaries. Huang (2012) suggested that in environments where employees were measured and held responsible for their performance, managers should encourage employees to solicit performance

feedback as well as facilitating their empowerment. The role of interpersonal justice at the individual and team level as an antecedent of negative feedback-seeking was found to be positively mediated where supervisors instilled high levels of trust among their employees (Chuang et al., 2014). Perceived organizational support for first-line managers in hospital settings was reported as leading to higher work engagement and positively mediated by the organization's efforts at promoting feedback (Jankelová et al., 2021).

Two studies by Krasman looked first at FSB at the organizational level, Krasman (2011) and secondly, FSB at the job level Krasman (2013). At the organizational level, Krasman examined the effects of centralization, work routines, standardization, span of control and formalization on performance feedback. He also examined supervisory feedback separately from coworker feedback as well as examining feedback-seeking from documentation. Study results indicated that higher standardization increases feedback-seeking from supervisors, coworkers, and documentation based on feedback's performance importance when employees were held to meet specific requirements. Wider spans of control decrease feedback-seeking from supervisors based on diminished supervisory accessibility. Formalization acts to impact feedback-seeking from documentation by limiting negative impressions of employee competence and the likelihood of negative supervisory inferences. Centralization leading to limits on employees' latitude in making job-related decisions increased overall feedback-seeking from supervisors and documentation. A final organizational finding was that routinization appears not to impact feedback-seeking. In the later, job-focused study, Krasman (2013) examined the influence of the dimensions of Hackman and Oldham's job characteristics

model on feedback seeking. Results were that task identity (the task's relationship to a complete or identifiable work product), job feedback (feedback acquired from completing job tasks), and autonomy decreased feedback-seeking while feedback from supervisors and coworkers increased feedback-seeking. Passively acquired feedback from supervisors and coworkers was hypothesized as reducing uncertainty contributing to increasing job performance motivation leading to additional feedback-seeking. High task identity's relationship with reduced feedback-seeking was attributed to lower feedback need and value as did job feedback. Engaging in feedback-seeking by high autonomy job holders incurred risks of loss of self-concept and public image.

Feedback-seeking in response to uncertainty might seem expected behavior. However, as with many manifestations of psychological constructs uncertainty creates varied feedback-seeking behaviors. Anseel and Lievens (2007) findings challenged notions that employees seek feedback to reduce uncertainty and to improve performance as not completely accurate. From an organizational perspective, feedback seeking focused on tasks can help close the gap between actual performance and performance goals. However, feedback focused on self-image or self-concept risked evoking strong affective reactions that distract from and potentially decrease work performance. From an individual perspective when people experienced high levels of uncertainty, feedback may serve to reduce this uncertainty. Individual feedback seeking can be a subtle, self-regulatory strategy to find a balance between personal needs for coherence and needs for reducing uncertainty caused by changes in organizational environments.

Neimann et al. (2015) reported that among high-power individuals, interpersonal uncertainty (not knowing what to expect from interpersonal interactions) was negatively related to direct feedback seeking. Their study showed that the negative link between interpersonal uncertainty and feedback-seeking was due to interpersonal uncertainty's effects on individuals' self-related motives. It strengthened ego-defense motives, decreased feedback seeking, and weakened image-enhancement motives that resulted in increased feedback-seeking.

Deng et al. (2019) studied the effects of uncertainty in dynamic entrepreneurial work environments. In these environments, the study authors observed a positive relationship between the environment and the entrepreneur's humble leader behaviors as represented by feedback-seeking. Entrepreneurs' humble leader behaviors were motivated by a high intolerance of uncertainty leading to increased vigilance and feedback-seeking,

### ***Mediators, Moderators, and Outcomes***

Returning to the Ashford et al. (2016) model, desired feedback outcomes generally involve performance (task, contextual, and creative), learning, and job satisfaction, while feedback-seeking encompasses the frequency with which feedback is sought, the tactics employed, and the seeker's acceptance of positive and negative feedback. Mediating the relationship between seeking and outcomes are information quality, role clarity, social integration, feedback acceptance, and learning along with seekers' attributions, perceptions, and identification with their source. Seekers' job autonomy and emotional competency may moderate individual seekers' outcomes. A

later study, Ashford et al. (2018), concluded CEO feedback-seeking, a reversal of the normal direction of feedback-seeking, about the CEO's work behaviors and style among members of the top management team coupled with vision articulation was related to the team's perceptions of organizational performance. The authors hypothesized that CEO feedback seeking increases team perceptions of their own potency (confidence based on perceptions of abilities to respond to challenges and perform tasks) and firm performance by communicating that the organization values their input and encourages their own feedback seeking. CEO vision articulation influences these outcomes by fostering greater clarity about the firm's direction, and an enhanced ability to coordinate efforts within the team. Both CEO feedback-seeking and vision articulation exhibit positive direct relationships with firm performance. However, only feedback-seeking displayed an indirect effect on performance via top management team potency.

Gong et al. (2017) in a study based on seeker versus other-focused (other than the seeker) and positive versus negative feedback-seeking reported the combination added to understanding the impact of feedback-seeking on job performance. Self-negative feedback-seeking exerts a positive influence on job performance through identification of comparative underperformance while self-positive feedback seeking negatively affects job performance through missing improvement opportunities. Furthermore, other-positive feedback-seeking was positively related to job performance while other-negative feedback-seeking was not. A learning goal orientation enhanced self-negative and other-positive feedback-seeking while a performance orientation enhanced self-positive and other-negative feedback-seeking. The authors added that self-negative and other-positive

feedback may improve an individual's job knowledge leading to enhanced creativity. A later study, Gong et al. (2019), explored the impact of feedback-seeking, including feedback inquiry and monitoring, on the coworker feedback environment, the contextual processes among coworkers encouraging feedback-seeking. Results indicated that feedback monitoring, feedback inquiry, and coworker identification were all positively related to the coworker feedback environment. Individuals displaying more feedback-seeking behaviors better identify with the organization, and individuals identifying more closely with coworkers may receive more useful feedback, which promotes a supportive coworker feedback environment. The authors recommended that coworkers encourage employees' feedback-seeking behavior so that the workplace feedback environment motivates them to ask for the help they need to work independently.

Early pandemic studies (Leroy, et al., 2021; Lian, et al., 2022; Neill & Bowen, 2021) examined the impact on performance of individuals working from home, the relationship among uncertainty and job insecurity, and closing the feedback loop between employers and employees. Leroy et al. (2021) compared performance across interruption types (intrusions, distractions, breaks, multitasking, and surprises) and sources (work and non-work). Overall, the study reported an increase in interruptions from both sources with non-work interruptions occurring more frequently than work interruptions and both leading to lowered performance. However, work interruptions increased for multitasking and surprises while non-work interruptions increased across all types. Interestingly, the increase in non-work interruptions was observed both for people working from home during the pandemic and those working from home prior to the pandemic, and suggested

disruption was contextual to working from home arrangements. The impact of non-work interruptions remained despite participants having dedicated home workspaces. Work multitasking was associated with greater emotional exhaustion and as suggested by the study authors this negative outcome may be a consequence of organizations seeking to maximize employee productivity but resulting in achieving the opposite outcome. Coincidentally, work interruptions from nonwork distractions, breaks, and intrusions also led to emotional exhaustion. All of these serve to fragment work time and, to compensate, work time may extend into non-work time. Lian, et al. (2022) explored COVID-19's associated factors of environmental uncertainty and job insecurity as impacts on organizational identification and performance. Organizational responses to the pandemic in the form of fewer work hours, layoffs, and benefit reductions, in addition to reducing organizational identification, lead to feelings of job insecurity. The loss of organizational identification and increasing job insecurity were likely to lead to lowered performance and, as experienced in the U.S., workforce dislocations as employees leave in search of more security and greater compensation. Cheng and McCarthy (2018), in their theoretical article on workplace anxiety, likewise observed that chronically anxious employees, those facing potential job, income, and benefit losses for example, may suffer emotional exhaustion leading to performance degradation. Under these circumstances, employers were advised to seek the least damaging workforce actions and reduce employees' insecurity through communicating directly with employees concerning effects from external sources, COVID-19 as an example, and potential organizational responses. This downward, unsolicited feedback delivered along themes of common and

shared situations served to positively affect performance through reinforcing organizational identification and reducing uncertainty. Neil and Bowen (2021) interviewed communication professionals to identify the state of organizations' ability to listen to their employees during the pandemic. Their qualitative research questions included definition and practices for ethical and strategic organizational listening, methods employed, changes due to COVID-19, and impacts to internal communication practices. Among the findings from their research were the importance of establishing trust in organizational motives among employees and closing the feedback loop. Trust among employees was most often established over time through personal relationships with employees to foster employees freely sharing concerns and perceptions. Closing the feedback loop involved organizations reporting back to employees on how employee concerns were being addressed, which resulted in more trusting relationships. An earlier study, Hsieh and Huang (2018), found supervisors' managerial coaching skills associated with open communications with employees, fostering team approaches to tasks, clearly valuing people over tasks, and tolerating ambiguity in working environments raised employees' trust in their supervisors. Threats to performance in work from home environments appeared embedded in the levels of employee work disruption, potential increased performance expectations, receiving diminished feedback compared with organizational office locations, and barriers to direct supervisory coaching for working from home employees.

An examination of performance from the contextual perspective of virtual teams suggested that benefits accrue when performance information was combined with process

information, was drawn from objective sources, and addressed the whole team as a unit (Handke, et al., 2022). These authors reviewed over 50 studies on virtual team effectiveness based on feedback content, source, and level seeking to identify benefits of feedback. They noted that, in a virtual team environment, interactions were likely to occur through electronic communication technology offering the possibility that information may be gathered, transformed, and displayed with minimal team member effort. For example, a live Zoom session can be captured and transformed into meeting notes with slides and audio synchronized for team members. Once recorded, this information becomes available to team members whenever it fits their personal schedules avoiding both information overload and loss of event perspective. Regardless of availability timing, this same information becomes valuable input to team reflective processing during debriefs, after-action reports, and project reviews.

Li and Tangirala (2022) in a study of the impact of outside, unexpected events inducing change and upsetting team routines observed that voice (as intragroup feedback among team members) was beneficial to hastening recovery. Their observations included that encouraging a high level of feedback enables team members to adapt more quickly and effectively. During periods of disruption, both promotive (novel ideas for improving team functioning) and prohibitive voice (concerns about practices detrimental to team functioning) were proposed as appropriate responses at differing times. Prohibitive voice when the overriding need was to reduce errors and promotive voice when improvements were sought to improve team processes.

Creative outcomes associated with supervisory feedback were most likely when supervisors monitored subordinates through open communications focused on understanding work progress, concerns, and problems (Liao & Chun, 2016). This approach supported employees by removing restrictions and avoiding interference in employee innovation efforts. A study of small business owners and entrepreneurs (Borchert & Rochford, 2017) concluded that many fail to seek negative feedback risking poor outcomes when the feedback might have forewarned of marketplace resistance. The authors suggested that acceptance and action based on negative feedback advances entrepreneurs' ability to constructively respond to a changing business environment and treating highly positive feedback with skepticism avoids becoming complacent.

Training and learning positive outcomes were enhanced through a combination of feedback and reflection (Sparr et al., 2017). A process of feedback-seeking identifying effective and ineffective behaviors coupled with reflection on the learning transfer experience, provided learners with evaluative information on their learning experiences. Cutumisu and Schwartz (2021) observed that beginning in middle school and continuing into adulthood, the propensity to seek critical feedback was age-invariant and differs among individuals. In training and learning contexts, this suggested that instructors providing environments with multiple feedback choices positively impacted feedback-seeking motivation as individuals were able to choose the alternatives most suitable to their immediate needs and levels of acceptance. Informal learning, work experiences and experimenting with alternative methods of task completion, was substantially influenced by feedback from coworkers and direct supervisors (Zia et al., 2021). The feedback

environment contributed to the overall learning context and fostered and enhanced informal learning.

Ashford et al. (2016) placed job satisfaction among employee socialization outcomes, adjusting to new jobs or settings, and related to feedback-seeking as a potential positive affective outcome. This suggested job satisfaction may be an outcome of pandemic-induced changes in work locations and individual isolation characterized by increased feedback-seeking to assist in maintaining or recovering job performance. Credé (2018) offered support for this view holding that job attitudes, in general, are based on situational factors (such as those in Hackman and Oldham's Job Characteristics Model) and dispositional factors (trait affectivity, for example, where one's work environment influences subjective well-being). Disruptive workplace events interact at both situational and dispositional levels where negatively perceived events produced far greater impacts on employee mood and, potentially, their affective job satisfaction perceptions.

Work engagement, investments of employee cognitive, emotional, and physical energy into their work, as a primary factor in job performance was moderated by feedback-seeking behavior (Bouckenooghe et al., 2022). These authors reported that work engagement's effects on job performance lessened over time more among employees less likely to seek feedback and, conversely, work engagement's effects on job performance increase among frequent feedback-seekers. Similarly, Jankelová et al. (2021), reported that among first line hospital managers a direct relationship exists between work engagement and perceived organizational support (POS). They report

further that increased managers' feedback-seeking behavior acts as a mediator of the relationship raising the intensity of the relationship. In a later article, Vieira dos Santos et al. (2022), the authors reinforce the positive impact of POS and performance feedback on work engagement across a sample of business office workers and that, under COVID-19 lockdowns, POS also mediated the relationship between performance feedback and job insecurity. Mazzetti et al. (2021) observed that in collective cultures the association between feedback and work engagement was stronger than in individualistic cultures.

FSB mediating factors include the seeker's appraisal of information quality, seeker's role clarity, social integration, feedback acceptance, learning, source attributions, source perceptions, and source identification (Ashford et al., 2016). In a quasi-experimental study, Cheah and Li (2020) examined the impact of structured feedback, student attitudes toward feedback, and perceived usefulness of the feedback on the students' presentation and written report performance in a project-based learning setting. Feedback sources were supervising industry professionals and feedback-seekers were four-person student teams completing required field-service projects in the final year of their programs. Students in the experimental group received scheduled feedback based on a formal rubric also used in preparing their supervising professionals. Control group students received ad hoc, random format feedback from their supervising professionals. Results were that students in the treatment group performed at higher levels on both presentation and report tasks, The authors credited the structured nature of the treatment feedback as more effective, more likely to be accepted, and of higher quality at directing students' focus on areas needing improvement.

Ashford et al. (2016) listed job autonomy, emotional competency, and leader-member exchange (LMX) as positive moderating factors. LMX, as perhaps the most significant feedback-seeking moderator, is discussed in a later section. While under normal conditions, job autonomy might be construed as a positive aspect of job contexts, it took on a somewhat negative characteristics during the COVID-19 pandemic. Studies by Venkatesh et al. (2021) examined remote workers' conscientiousness quasi-experimentally and Cameron et al. (2021) study of expectations of ideal frontline workers and experiences qualitatively provided unexpectedly differentiated observations. The Cameron et al. (2021) study sought specifically to examine experiences of workers as a group more threatened by pandemic risks and higher expectations than isolated remote workers. Considering the range of these workers, they included most customer facing workers including customer delivery workers, firemen and police officers, a variety of patient-facing health care workers, and workers in small, independent neighborhood shops as examples. Traditionally, in non-pandemic times, expectations of these workers' ideal behaviors are highly personalized services characterized by availability. Availability, in turn, suggests close contact with customers and increased risk. Reluctance to undertake the increased risk by, for example avoiding close contact encounters, increased financial risk of not meeting customer expectations. Workers interviewed in the study described a list of strategies from embracing the risk along with raising their compensation demands to withdrawing from the risky work altogether. However, despite having included questions involving feedback-seeking and availability, the study included no reporting on either seeking or availability. Venkatesh et al. (2021) reported

that highly conscientious workers were the most likely to suffer work strain and lower job satisfaction. Their explanation was that in situations involving less clarity of expectations and an environment of irregular work hours, highly conscientious employees raised their internal standards to work harder and produce more. Initially, this was organizationally attractive but over extended time periods was likely to lead to burnout and ultimately increased worker turnover. Coincidentally, even among these high paid remote workers, there was no mention of using feedback or encouraging worker feedback-seeking to support remote workers.

Emotional competency, understanding and navigating emotionally laden interpersonal situations, as reported by Ashford et al. (2016) generally varied positively with high levels of FSB. A more recent study, Sung et al. (2020) examined emotional competency with respect to creativity and as a predictor of FSB. Their study established emotional competency as a potential personal resource towards creativity, described the role of feedback and divergent input as crucial inputs to creativity, and suggested divergent paths involving emotional competence and FSB leading to both incremental (minor modifications) and radical (convention changing) creativity. Emotional competence enabled feedback seekers to withstand the risks to ego and reputation implicit in proactively seeking information and evaluation. Sung et al. suggested FSB frequency leads to incremental creativity while the breadth (number and variety of sources) of FSB supported radical creativity.

FSB in this study was conceptualized as a valuable self-regulatory behavior of employees compensating for the pandemic-initiated disruption associated with

displacement from organizational office settings to employee homes. Employees successfully employing FSB were provided information useful in effectively accomplishing their own work tasks and supporting collaboration with peers and supervisors (Ashford et al., 2016). Self-regulated learning (informal workplace learning) was dependent upon feedback which informed employees' sense of self-efficacy and indicated when changes to approach and development were needed (Kittel et al., 2021). In a COVID-19 laboratory study, Brodsky (2021) examined which media were most effective at communicating emotional authenticity, finding that richer media (video versus audio-only) were better suited to communicating emotions. Where emotional authenticity was a material consideration, such as when a supervisor must communicate concern or approval feedback, the Brodsky (2021) study results suggested the supervisor choose video when capable of communicating the emotions authentically. These studies together described feedback and its enabling mechanism, FSB, as essential components in employees' discovery of useful work information, supporting collaboration among coworkers and with supervisors, supporting workplace learning, and dependent on media richness. The following two paragraphs briefly describe recent (2021-2022) studies that examine FSB with similarities to the current study.

Jankelová et al. (2021) used several self-report instruments to measure FSB, perceived organizational support (POS), and work engagement in their study of the mediating effect of FSB on the relationship between POS and work engagement among front-line health care managers. Their study assessed both the individual effects of feedback inquiry and monitoring and their combined effects on work engagement under

the assumption that front-line managers used FSB to acquire performance information not available through organizational channels. In addition to confirming their mediation hypotheses, their study revealed that formally trained managers were more likely to use direct inquiry tactics while managers without formal training preferred monitoring tactics. Lee and Kim (2021), likewise, used combined results from several self-report instruments to collect information from non-managerial and management individuals working in various industry sectors in their study of the impacts of leadership, internal communication symmetry, and FSB's mediating effect between symmetrical communications and employee creativity. Internal communication symmetry, for Lee and Kim's study, was characterized by employee empowerment and engagement in organizational decision-making through openness, adequacy of information, tolerance for disagreement, and negotiation. The study provided recommendations for consideration (displaying empathy, listening, and feedback) as recognition of employee value to the organization. Provision of opportunities for employees to share ideas, concerns, and needs along with formal training programs were suggested to encourage employees' active engagement in FSB. A self-report survey study conducted in response to the COVID-19 pandemic of small and medium-sized enterprises by Zhang, W., et al. (2021) examined the interactions among employee traits of industriousness, enthusiasm, and organizational citizenship with perceptions of supervisor support (PSS) and FSB. Industriousness, enthusiasm, and organizational citizenship traits were hypothesized as affecting both PSS and FSB with PSS also directly affecting FSB. The importance of employees' FSB in their own development was confirmed by study results especially

considering the relative lack of training resources in the companies studied as was the role of PSS in promoting employee FSB.

FSB is a mechanism supporting valuable outcomes of employee learning and reducing uncertainty but for most organizations, performance is the gold standard. Bouckenooghe et al. (2022) using several self-report instruments along with supervisors' ratings of employee performance attempted to assess the pathways and contributions to performance of employee personal resources and FSB. Their operational model depicted personal resources as mediating the curvilinear (additional work engagement drains personal resources leading to diminished incremental performance) relationship between work engagement and job performance while FSB moderates (identifies actions that increase the efficiency of personal resources) the relationship. Lian et al. (2022), used self-report survey instruments to study performance during COVID-19 from the perspectives of environmental uncertainty (media COVID-19 reports) and job insecurity (organizational shutdowns and layoffs). Interestingly, this study's recommendations, while not mentioning feedback, suggest leaders' positive views in the face of environmental uncertainty serve to enhance and increase organizational identification. Concerning job insecurity, the recommendations were to intervene in the face of layoffs with accurate information and involve employees in organizational decision-making. These tactics, in either a preemptive or reactive mode, stand as forms of feedback from management to employees. Vieira dos Santos et al. (2022) confronted COVID-19 job insecurity more directly using self-report surveys of job insecurity, job resources, perceived organizational supports, and work engagement. Their results indicated that

organizational and job performance feedback along with job autonomy act as protective resources against the negative aspects of job insecurity. Organizational feedback delivered in terms of organizational support along with positive job performance feedback affect employees positively. Job autonomy, carefully managed to maintain COVID-19 safety protocols, reinforced messages of organizational concern.

Closing of office workplaces and dispatching employees to work from their homes in response to pandemic-initiated public health measures, appeared to lack consideration of consequences and preparations to maintain conventional workplace conditions. Employer office workplaces have served as places to assemble workers in an organized environment, adapt their behavior to satisfy job and organizational requirements, and monitor their performance. It was unclear that these aspects of conventional office workplaces were successfully transferred to employees' homes and, at best, were left to individuals' self-regulatory skills. Feedback-seeking behavior (FSB), generally, suggests individual self-regulation with a desired end-state (goal) in mind and taking action to satisfy monitoring and directing purposes (Inzlicht et al., 2021). These authors, in a review article intended to integrate leading models of self-regulation, examined, and compared self-regulatory models across levels of analysis. While their results comprehensively describe self-regulation and acknowledge that people mastering self-control live better and longer, their conclusion was that, in its present state, self-regulation remains multi-faceted and lacks a unified theoretical base. This implies FSB, as a self-regulatory strategy, operates within a broad conceptual domain in pursuit of a variety of outcomes. Taking a more nuanced view of self-regulation through regulatory

focus theory, Byron et al. (2018) studied the effects on job performance of individuals with a promotion focus (disposed and motivated to take risks by the prospect of gains, accomplishments, and aspirations) versus a prevention focus (disposed and motivated to avoid losses preferring vigilance, caution, and careful planning). This study, acknowledging that regulatory focus within individuals can be situational (individuals may employ a promotion or prevention focus depending on their perceptions of the situation) proposed that stressful situations were likely to cause choosing preferred styles regardless of suitability in addressing the situation. Study results confirmed this hypothesis suggesting that individuals with a promotion focus, in high stress situations (time pressures and cognitive demands) were more likely to employ promotion strategies (flexibility, enthusiasm, creativity, and risk-taking) while prevention focused individuals were more likely to employ prevention strategies (vigilance, focusing on details, and avoiding losses). Higgins and Pinelli (2020) in a review article examined findings on four regulatory focus domains (decision-making, messaging, people management, and entrepreneurship) for individuals, teams, and organizations confirmed Byron et al. and added regulatory fit where prevention focused individuals choose vigilant behaviors and promotion focused individuals choose eager (risk-taking) behaviors. Under these conditions fit described the condition where the goal-directed behavior matches the regulatory focus, prevention matched with vigilance and promotion matched with eagerness. Fit strengthens feelings that the right behaviors were being employed and engaged while lack of fit weakens engagement. Tactically, prevention focused individuals may disregard fit when a risk-taking option was seen as most likely to stop a

losing situation despite the tactic being a promotion focused tactic. Likewise, promotion focused individuals may disregard fit when choosing between lesser and greater risk-taking options when the lesser option was more likely to secure gains. Summarizing the above research, FSB as a component of self-regulation operates at the regulatory focus level with individuals choosing situationally influenced feedback-seeking tactics. As such, a feedback-favorable work environment regardless of location, could meet individuals' self-regulatory needs and preferences if perceived as capable of addressing these needs when attempting to monitor and direct their performance, reduce uncertainty, and support social acceptance.

Steelman et al. (2004a) in developing and validating a feedback environment instrument, the Feedback Environmental Scale (FES), noted that the strongest predictor of feedback-seeking behavior was promotion of environmental supports for feedback seeking by supervisors. Steelman et al. (2004a) conceptualization of the feedback environment included source availability, source credibility, promotion of feedback seeking, feedback quality, feedback delivery, favorable feedback, and unfavorable feedback from both supervisors and coworkers. The current study compared office worker perceptions of feedback environments among employees in employer office locations (OL), employees that traditionally work in remote locations (RL), and employees displaced to working from their homes (HL) during the COVID-19 pandemic. Planned feedback environmental variables included supervisor feedback sources using the set of seven feedback environmental factors from the FES. Measures of employee workplace outcomes of work engagement (Schaufeli et al. (2006b), and job satisfaction

(Iverson et al., 1998b) were outcome measures in this study. Research questions were formulated to support comparisons among the study groups and test whether FES environmental factors vary by work location. Work outcomes of work engagement and job satisfaction were measured to determine if they can be predicted based on the relative strengths of the feedback environments. These measures enabled a statistical comparison of the three feedback environments in terms of the existence of measurable differences, their effects on self-reported work engagement and job satisfaction, and composite feedback environment profiles based on FES results.

### **Leader-member Exchange (LMX)**

Leader-member exchange (LMX) had its inception in a naval leadership paper, Dansereau et al. (1975) suggesting that leaders selectively chose to develop either supervisory relationships or leadership relationships with members of their units. Supervisory relationships were characterized as influencing subordinates based on the leader's authority while leadership influence was associated with limited or no use of authority. Leadership was characterized as an exchange relationship developed during role-making activities between the leader and subordinate with the leader granting varying degrees of latitude to the subordinate in role negotiations. Over the intervening decades LMX became qualitatively associated with leadership such that highly developed LMX relationships were taken to represent high quality leadership (Liao & Chun, 2016). As a qualitative leadership factor, LMX appeared in the Ashford et al. (2016) FSB model as a relational variable within FSB contextual antecedents. Peng and Lin (2016) explored the linkage between supervisory feedback environments (Steelman et al., 2004a) and

contextual performance with LMX as a mediating factor. They studied both organizational citizenship behaviors (OCBs) and workplace deviant behaviors (WDBs) as performance outcomes concluding that LMX mediated the relationship between the supervisory feedback environment and OCB positively and WDB negatively.

Gifford (2022) in his introduction to a COVID-19 pandemic remote working special issue of *Human Resource Development International* mentioned LMX in the context of its adaptation to remote working, collegial relationships, knowledge exchange, and barriers to inclusion in virtual work contexts. In the same special issue, Varma, et al. (2022), targeted LMX remote work contexts. They noted that over the course of the pandemic's first year employers discovered opportunities to revise or eliminate legacy processes to realize cost savings, and employees became accustomed to personal flexibility during work hours such as eliminating time spent commuting. The overriding impact has been remote work's changes to supervisor-subordinate relationships when considering LMX as a model for these relationships. Varma et al. (2022) in their theoretical discussion build on Graen and Uhl-Bien (1995) characterization of key LMX dimensions to include mutual respect for leader and subordinate capabilities, anticipation of reciprocal trust, and expectations that bi-directional obligations will develop. They credited a remote work context as being advantageous to employees based on scheduling flexibility, increased ability to attend to family needs, eliminating commuting time, and minimizing office environmental disturbances. However, remote work also resulted in isolation, being overwhelmed by family member needs, limited collegial relationships and knowledge sharing, as well as limited coworker socialization. Specifically regarding

LMX relationships, remote work limited the interactions between supervisors and subordinates, restricting development of LMX relationships. Non-verbal cues were lost in computer mediated interactions. Supervisors were likely to miss organizational commitment and organizational citizenship behaviors. Subordinates had fewer opportunities to influence supervisors than in conventional office settings. The above suggested that remotely developed LMX relationships and their benefits requires different supervisor-subordinate interactions over longer time periods and may not reach their full potential when established.

The FES comparison among work locations reported differing employee FSB experiences. These were moderated by changed LMX relationships resulting from the COVID-19 dislocation from employer offices to employee homes. Virtual locations were likely to limit supervisor-subordinate interactions, mask nonverbal cues, limit supervisor perceptions of commitment, and limit subordinates' supervisory engagement opportunities (Varma et al., 2022). These conditions suggest weakening of LMX relationships. Contrarily, employees whose LMX relationships with their supervisors were weak and who were proactive concerning FSB and thoughtfully use feedback, may overcome the effects of weak supervisory LMX relationships (Lam et al., 2017). Furthermore, leaders that empower their subordinates were likely to also stimulate their FSB (Qian et al., 2018a). This hypothesized uncertainty surrounding LMX effects suggested it be considered as a key variable in the study as possibly moderating FSB measures.

A research question measuring the strength of LMX relationships among the three employee locations provided the basis for comparisons among the locations with respect to prior findings in the literature. Ashford et al. (2016) model suggested that high-rated feedback locations were also likely to have higher-rated LMX relationships. As a secondary consideration, results from measures of the feedback and LMX environments may offer additional observations of the negative effects on LMX of remote locations, but strong FSB compensating for the lack of in-person supervisory contact (Varma et al., 2022).

### **Literature Review Related to Key Variables and/or Concepts**

#### **Feedback-Seeking Behavior.**

Feedback constructs for this study include the feedback environment, feedback-seeking behavior (FSB), LMX, work engagement, and job satisfaction. Steelman et al. (2004a) describe their Feedback Environment Scale (FES) instrument's purpose as a solution to diagnosing organizational feedback. The FES is an instrument designed to measure the contextual characteristics of organizations' feedback environment which targets day-to-day supervisor-subordinate feedback processes. The FES considers feedback source, the supervisor or coworker, using seven facets: source credibility, feedback quality, feedback delivery, frequency of favorable feedback, frequency of unfavorable feedback, source availability, and promoting feedback seeking.

FES facets parallel Ashford et al. (2016) model of feedback-seeking behavior (FSB). The facets of FES source credibility (expertise and trustworthiness) and feedback quality (consistency and usefulness) relate to FSB target antecedents of credibility and

trustworthiness, the contextual antecedent of uncertainty, moderators of target credibility and uncertainty avoidance, outcome mediators of information quality, target attributions and perceptions, and outcomes of task performance and job satisfaction. The FES feedback delivery facet (source intentions, delivery process and demeanor) relates to seeker antecedents of disposition, emotion, cognition, and motivation, relational and job and organizational contextual antecedents, the task interdependence moderator, outcome mediators of role clarity, feedback acceptance, and identification with the source, the emotional competence moderator (of both seeker and source) and performance and job satisfaction outcomes. FES facets of favorable feedback and unfavorable feedback align with seeker antecedents of disposition and motivation, target antecedents of leadership style and affect, contextual antecedents of LMX, job and organization, feedback seeking behaviors involving tactics and preferred feedback (negative or positive), outcome mediators of feedback acceptance, and attributions and perceptions of feedback sources, as well as learning outcomes, and emotional competence. FES facets of feedback sources and promotion of feedback-seeking behavior were explicitly related to seeker, source, and context antecedents, feedback-seeking behaviors, mediators of feedback outcomes, and the outcomes themselves. In short, the literature summarized in the Ashford et al. (2016) model was largely represented in the earlier FES instrument developed by Steelman et al. (2004a). In the contexts of a near instantaneous COVID-19 shift from a face-to-face workplace to a virtual workplace, then, the FES was useful in evaluation and comparison of employees' perceptions of the supporting nature of feedback in their workplaces.

The FES was further conceived as a measure of feedback-seeking sources from both supervisors and coworkers with the same facets and items. However, in considering use of the FES, a concern was realized that under COVID-19 pandemic conditions, especially among workers dispatched to work from their homes (HL), use of the coworker scales could distract or introduce a confound into the study purpose of comparing factors in common across locations. For both the home-based (HL) and traditionally remote (RL) workers, coworkers' interpersonal communication, while available electronically, would be available quite differently from in-person coworkers in the office location (OL) condition. Handke et al. (2022) in a review of prior virtual team studies with the purpose of identifying positive feedback-related practices suggest that feedback be solicited from objective sources without mentioning coworkers. An earlier study, Griffith et al. (2018) of complements to supervisory leadership acknowledges the role of feedback and suggests electronic communication with supervisors, but not coworkers, among practices to support self-management and work engagement.

### **Leader-Member Exchange (LMX)**

Motivation to use feedback as a representation of the feedback seeker's determination to improve their performance and satisfaction with feedback depends upon the feedback seeker's perception of its usefulness (Steelman et al., 2004a). Feedback-seeking frequency and tactics in the Ashford et al. (2016) FSB model depend on the feedback seeker (namely seeker disposition, cognition, and motivation for additional performance information), the feedback source (the seeker's source, most often a supervisor) and the feedback environment which includes the relational context, LMX,

between seeker and source. Peng and Lin (2016) observing that high-quality (LMX) was associated with the strength of the supervisor-subordinate relationship and expectedly also associated with more frequent feedback-seeking as opposed to less frequent feedback-seeking in lower-quality LMX relationships. These authors recommend that supervisors develop counseling and communication skills in providing feedback and use knowledge of individuals' feedback to increase work motivation and performance. They further suggest that an overarching goal should be to form a feedback-oriented organizational culture.

Ashford et al. (2016) model of feedback-seeking behavior (FSB) place LMX within the subset of relational behaviors as part of the feedback context. They characterize it as a measure of the environment's overall supportiveness. These same authors recognize LMX's influence on the context within which FSB occurs. Consequently, connections among FSB, LMX, and the work location (home, employer office, or other remote locations) emerge as areas differentiating employee perspectives on organizational supports. Qian et al. (2018a) report on the influence of empowering leadership in positively affecting employees' FSB and task performance. Employee empowerment coupled with leader humble behaviors (seeking and discussing work-related issues with employees for example) encourage employees FSB. Relating these observations to virtual work locations offers supervisory strategies to overcome diminished opportunities for social interaction. A second study, Qian et al. (2018b) examined the effects of supervisors' FSB on subordinates' FSB. Based on their observations, the authors recommend supervisors serve as FSB role models by seeking

feedback from subordinates to the extent that supervisors receive relevant training in their own FSB and establish a rationale both for the acquisition of effective FSB and its modeling by front line supervisors.

### **Work Engagement**

Griffith et al. (2018) in a study of two Nordic companies observed that, in flexible work settings, work engagement through supervisory electronic communication as a complement to supervisory leadership was mediated by workplace settings. The authors report that supervisory leadership complements of feedback from the work and technology support of the work were not complete replacements for interpersonal interactions between workers and supervisors. In an organization with more experience using flexible work arrangements versus an organization with less experience, the mediation effect of supervisor electronic communication was more pronounced suggesting that experience with flexible settings may be a prerequisite to their success especially when support for flexible work arrangements has been rare or lacking entirely. Based on the ongoing, perhaps accelerating, shift to electronically enhanced workplaces, Kittel et al. (2021) suggest that needs-based, self-regulated learning was important to employees' abilities to deal with these changes. Their study investigated the influence of context (learning culture, autonomy, task identity, and feedback) on self-regulated learning. Results identified a connection between a learning culture and a mastery-approach goal orientation. Autonomy, task identity, and feedback were related to self-efficacy. The overall conclusion was that an empowering context for employees to

develop themselves through a learning culture required supporting employee learning, providing feedback, and enabling autonomous work.

Effects from events beyond the individual's control, and often from outside the organization, impact both the individual and the individual's work group (Li & Tangirala, 2022). The focal event of this study, disruptions from the COVID-19 pandemic and the resulting dislocation of millions of workers from organizational offices to their homes, challenged work group functioning and performance. Li and Tangirala (2022) argue that a path to performance recovery was teams' engaging in two forms of voice depending upon the recovery stage. They argue that high levels of prohibitive voice immediately after the disruptive event should be followed by promotive voice during performance recovery. Both forms suggest organizational FSB support and interpersonal environments similar to higher level LMX. Encouraging high levels of prohibitive voice immediately after the appearance of the disruptive event hastens effective adaptation to the event. As changes are proposed and formulated, both prohibitive and promotive forms of voice encouraged by leaders harness the full capabilities of team members. Conditioning members to speak up, even incentivizing the behavior, and holding "speak up" sessions can be successful at reducing reluctance to use voice (Li & Tangirala, 2022, p. 687). Regardless of the event, these practices are useful in any changing environment.

### **Job Satisfaction**

Job satisfaction in the Ashford et al. (2016) model was listed as one of five terminal outcomes which include task performance, contextual performance, creative performance, learning, and job satisfaction. As a self-assessed comparative measure,

along with work engagement, it was included in this study to reveal participants' rating of outcomes associated with their work locations. Martin et al. (2022) report on the usage of groupware, workflow, instant messaging, and web conferencing tools during the early stages of the COVID-19 pandemic. They list five usage profiles. The first characterized by a combined mastery and job performance-oriented strategy resulted in increased productivity and reduced job satisfaction based on loss of social interaction. A second profile characterized by an increased number of tools resulted in information overload increasing job stress and reducing job satisfaction. The third profile was characterized by limited or non-use of digital tools and resulted in no job satisfaction changes.

Interestingly, the fourth profile, an intensive and increased use of familiar tools, led to greater information overload than the second profile and to decreased job satisfaction, productivity, and increased job stress. A final, fifth profile of increased weekly use of two digital tools and daily instant messaging resulted in increased job satisfaction and job productivity.

Job satisfaction, while likely to be affected by work environments and processes, also has a substantial literature based on work attitudes and personality. Credé (2018) in discussing work attitudes (satisfaction, commitment, and involvement) describes job satisfaction as an aggregate of experiences with specific job facets (pay, coworkers, etc.) partially formed by these experiences. Job satisfaction was also theorized as a combination of affective and cognitive components. Beginning with Hackman and Oldham's (1975) job characteristics model as related to job satisfaction, Credé (2018) names job complexity and a person's desire for learning, growth, job achievement, job

complexity, and individual facets of the job (such as supervisory positions and other benefits) as extending the Job Characteristics Model relationships with job satisfaction. In terms of dispositional job satisfaction factors, Judge et al. (2002) in a meta-analysis correlated Big Five personality traits with job satisfaction. Surprisingly, neuroticism had the strongest correlation with job satisfaction suggesting that lower neuroticism was related to higher job satisfaction. Conscientiousness, expectedly, was moderately correlated with job satisfaction and the second strongest correlation. Extraversion was the final trait correlated with job satisfaction and, in terms of a personality low in neuroticism and high in extraversion, the authors note, are key elements of a “happy personality” (Judge et al., 2002, p. 534).

Job satisfaction as an FSB outcome (Ashford et al., 2016), along with the varying outcomes of remote work environments associated with the use of electronic tools (Martin et al., 2022), and its sensitivity to individual factors such as personality (Judge et al., 2002) characterize it as a sensitive indicator of personal experiences. Credé (2018) in his description of job satisfaction supports this view. For this study then, job satisfaction across the three locations was chosen as an indicator of affective and cognitive experiences.

### **Summary and Conclusions**

Feedback and LMX are intertwined in their theoretical development and operation. Feedback as a theoretical and self-regulatory conceptual model continues its development to the present (Ashford & Cummings, 1981, 1983, 1985; Ashford et al., 2003; Ashford, et al., 2016) along with a substantial body of work from other authors

(Allen, T. D. et al., 2010; Anseel & Lievens, 2007; Anseel, Lievens, & Levy, 2007; De Stobbeleir & Ashford, 2014; De Stobbeleir et al., 2010, 2020) and more recently Bouckenooghe et al. (2022), and Li and Tangirala (2022) to name a few. This continuing development gives credence to feedback's theoretical and operational self-regulatory relevance. Feedback's inclusion in the Hackman and Oldham (1975) job characteristics model assures feedback's appearance in HR, job attitude, and other literatures. LMX (Dansereau, et al., 1975) has its own continuing history of research and experiment in the context of feedback (Ashford et al., 2016; Gifford, 2022; Liao & Chun, 2016; Peng and Lin, 2016; Varma et al., 2022). Both concepts are characterized as relational processes potentially improving employee performance. Feedback and feedback-seeking relationships include those between employees and their supervisors, coworkers, and the job itself, based on the feedback seeker, the feedback source, and the feedback context, moderated by factors of the seeker's sense of empowerment, source credibility, seeking effort, task interdependence, and uncertainty avoidance. LMX's relational context, usually conceptualized as between supervisor and employee, but more recently expanded to consideration of LMX relationships at the team level (Lan et al., 2020), explores the emergence and development of mutually beneficial relationships between individuals with different levels of authority and power. Added to this, COVID-19 a worldwide life-threatening pandemic which displaced millions of U.S. office workers (Dey et al., 2021), raises a novel question of how did feedback operate in remote work locations when simple observation and face-to-face communication, were replaced by electronically mediated communication? Likewise, did the interpersonal aspects of LMX, basically

agreements of mutual trust, continue in a virtual workplace? Today in 2024, it is known that most organizations survived the pandemic dislocations, but we are just now beginning the work of describing how our self-regulatory and relational models performed (Bentley et al., 2021; Bouckennooghe et al., 2022; Handke et al., 2022; Kittel et al., 2021; Lian et al., 2022).

This study was a modest attempt to answer the above feedback and LMX questions by comparing the perceived experiences of employees, who, in response to the pandemic, were banished from organization offices to work from their homes. These employees' experiences compared with the perceived experiences of employees mandated to remain working in their organizations' offices. The experiences of these two groups were further compared with experiences of employees who were already working virtually (away from their organization's offices) both before and during the pandemic. Recognizing that the feedback-seeking literature on remote work locations was limited when compared with that of employer offices, this study compares employee perceptions of their feedback environments, supervisory LMX relationships and their perceptions of their work engagement and job satisfaction to reveal differences among the three work locations with respect to these study variables. Past studies have specifically called for additional feedback research in remote working models (Handke et al., 2022). Griffith et al. (2018) predict that supervisory leadership in flexible work settings was less important suggesting that supervisory feedback may also be less important. Ashford et al. (2016) propose LMX as a contextual antecedent to feedback-seeking. This study was a partial

response comparing feedback supervisory environments and LMX across three organizational work locations.

Chapter 3 begins with a restatement of the study purpose and previews the chapter's sections. The research design and explanation of the reasons for choosing the design follows. A methodology section describes the study population and sample size along with sampling procedures and the procedures for participant recruitment, participation, and data collection. Descriptions of survey instruments and their operationalization complete the section. The plan for analyzing data collected, statistical tests, reasons for choosing each test and the planned interpretation of results is presented in a data analysis plan. Threats to validity are discussed at both the internal and external level. Ethical procedures covering agreements for accessing participants, participant treatment, and plans for handling and safeguarding data are discussed. The final section, a chapter summary, completes the chapter.

## Chapter 3: Research Method

### **Introduction**

Feedback is a core job characteristic representing information employees often proactively seek within their daily interactions (Ashford et al., 2016). When coupled with autonomy it multiplies the positive impact of skill and task job characteristics (Hackman & Oldham, 1975). Organizations, recognizing this importance, regularly train supervisors and managers in providing their employees meaningful feedback (Steelman et al., 2004a). However, feedback has historically been delivered face to face from supervisors and coworkers in the workplace or gained through workplace observations by proactive employees. The recent COVID-19 pandemic upset these contexts as employer offices were emptied and employees sent to work from their homes. In-person, face-to-face contact was replaced by electronic media and interactions centered on email, text messages, and video-enhanced conference calls. The purpose of this quantitative study was the evaluation of feedback environment ratings from employees dispersed to work from their homes (HL), and comparison of these ratings with respect to feedback environment ratings of employees who remained in conventional office settings (OL) or continued working only in pre-existing remote location arrangements (RL) during the same period. Measures of employee ratings of supervisory feedback environments, effects of LMX on feedback-seeking, work engagement, and job satisfaction outcomes described the relative satisfaction and outcome effects among the study groups.

This chapter explains the research design including descriptions of the study variables, the relationships between the research design and research questions, the natural experiment nature of the COVID-19 pandemic, its limitations, and the fit between this design and other non-experimental research designs. A methodology section describes the study population and sampling procedures along with procedures for recruitment, participation, and data collection. Instruments planned for the study are explained along with their operationalization. The data analysis plan is reviewed with a discussion of potential threats to validity. The chapter closes with a discussion of ethical procedures followed by a chapter summary.

### **Research Design and Rationale**

This study employed a quantitative cross-sectional survey design with research questions and hypotheses relating to three groups of participants based on the independent variable, work location. The primary dependent variable was participants' rating of their feedback environment. Research question one focused on the perceived similarities and differences of the three work locations with an aim to measuring the degree to which employees within each group reported experiences that aligned or departed from those of employees among the other groups. Feedback environment was represented by employees dispersed during the pandemic to working from home offices (HL), employees continuing to work in their customary organizational offices (OL), and employees continuing to work from remote offices before and during the pandemic (RL). LMX, as a primary relational variable in feedback-seeking (Ashford et al., 2016), was similarly examined and compared across the three locations in research question two.

LMX's interpersonal relational aspects suggested it may covary with and have explanatory value in interpreting employees' ratings of their feedback environments. Self-reported measures of work engagement (research question 3) and job satisfaction (research question 4) were collected to determine if they could be predicted by feedback environment ratings and LMX ratings. It was expected that favorable feedback environment and LMX ratings would predict favorable reports of work engagement and job satisfaction.

Feedback environments, as described by Ashford et al. (2016) in terms of employee office environments and more recently by Griffith et al. (2018), Warrilow et al. (2020), and Handke et al. (2022) addressing virtual and remote environments, were the platforms upon which feedback was sought, delivered, and evaluated in this study. For feedback seekers, feedback environments determine sources, availability, and costs of feedback-seeking along with providing continuing opportunities and support for personal development (Steelman et al., 2004a). Supervisory feedback sources operating within effective feedback environments benefit from self-management among employees that reduce monitoring and adjustment to day-to-day activities while supporting varied arrangements of job design and responsibilities (Qian et al., 2018a). This cross-sectional survey design took advantage of a unique experimental setting, large scale virtual work locations, that had previously been unavailable to both virtual environment and self-regulatory researchers (Handke et al., 2022). It was undertaken with the aim to sample a unique population, explore experiences in coping with an environmental shift, and report on the results of reassigning traditional office workers to virtual work settings.

## **Methodology**

### **Population**

Estimates of the number of office workers displaced by the COVID-19 pandemic vary but number in the tens of millions based on U.S. Bureau of Labor Statistics (2019) reporting on employed persons by occupation. These estimates included U.S. residents aged 16 years and older across all occupations. The total estimated management, professional, and related occupations were over 64 million. Among these, management, business, and financial operations occupations where displacement of office workers was likely heaviest were estimated at over 26 million. This estimate did not include another 37 million workers in the professional and related occupations along with service occupations of more than 26 million workers, and sales and office occupations estimated at over 33 million. While the exact number of workers displaced by the pandemic varied by source, it could be safely concluded that a large proportion of U.S. office workers suddenly began working from their homes. For this study, Ohio organizations with members from the above classifications of office workers were originally planned to be solicited as participants. However, reluctance by organizations to permit solicitation of their employees to participate in the study required use of a commercial marketing research platform and participant database.

### **Sampling and Sampling Procedures**

A non-probabilistic method using full-time employees drawn from a panel of respondents recruited to complete marketing and other public surveys comprised the participant pool. Potential participants were presented with one of three surveys

representing the three work location groups: (HL- displaced to working from home, OL- continuing to work in organizational offices, and RL – continuing to work remotely from organizational offices before and during the pandemic).

Inclusion criteria determined during participant screening were that the participant must have worked full-time within a single organization (not as a self-employed worker and not in organizations with fewer than 10 members) in one of the three work locations (HL, OL, or RL) for six or more months during the time period beginning January 1, 2020 and ending December 31, 2022. Additional inclusion criteria were that participants work was primarily conducted in one fixed office location over the reporting period, that the worker was engaged in full-time employment performing the same job, and reporting to one supervisor or manager during the entire reporting period. Job technology characteristics included that the job must be possible to perform both in and away from organizational offices using laptop or tablet computers over internet connections. Participants were required to be 18 years or older. Work could involve direct contact with people outside the organization, either in person (physically present) or through any communication medium or be performed primarily with other organizational members. It could also involve collaboration with other organization members present or through any communication medium. Work could be performed during regular daytime office hours (9 AM – 5 PM) or during shifts of varying start, end times, and durations. Workers could represent any size organization of 10 or more members and represent any occupation.

Psychological research generally recommends an alpha or significance level (probability of rejecting the null hypothesis when it is correct, a Type I error) of  $\alpha = 0.05$

and power level (probability of rejecting the null hypothesis when it is not correct, avoiding a Type II error) of  $(1 - \beta) = .80$  (Warner, 2013). Along with  $\alpha$  and  $1 - \beta$ , effect size (small, medium, or large) is measured as  $d$  – Cohen's  $d$ ,  $r^2$  – strength of relationship,  $R^2$  – multiple correlation strength of relationship, and  $\eta^2$  – eta-squared (ANOVA), are related to specific statistical procedures. Sample sizes can be calculated in planning a study (a priori), using available online tools such as G\*Power (Buchner et al., 2021) as a function of  $\alpha$ ,  $1 - \beta$ , and the expected effect size based on the planned statistical procedure. Completed studies' (post hoc) power levels can be calculated based on  $\alpha$ , the effect size estimated by the completed study, and the number of cases considered in the study (Buchner et al., 2021).

Past analyses have examined feedback and feedback environments through a variety of approaches Warrilow et al. (2020), in an experimental study used ANCOVA to compare task performance improvement based on counts of processed items under four feedback modes: face-to-face feedback ( $n = 21$ ), computer-generated reports ( $n = 30$ ), cell phone text messages ( $n = 28$ ), and no feedback ( $n = 23$ ). Results from a one-factor analysis of covariance using mean performance during baseline sessions compared with mean performance during experimental sessions found a statistically significant difference between face-to-face and no feedback conditions ( $p = .04$ ) with a small effect size of  $\eta^2 = .07$  for the comparison between the two conditions.

Griffith et al. (2018), in a cross-sectional study of 289 participants examined effects of the positive feedback and feedback-seeking promotion facets of the Feedback Environment Scale (FES; Steelman et al., 2004b) as predictors of task performance. The

two facets significantly explained task performance ( $F(2, 286) = 12.89, p < .01, R^2 = .08$ ) indicating a small effect. A more recent study, Ellison et al. (2022), examined FES-measured supervisory feedback environments (moderated by feedback orientation, self-awareness, and learning agility) on leader effectiveness and capability outcomes in a 360-degree leadership development program of 55 leaders. Correlation results for FES scores and improvement of leader effectiveness indicated that FES scores were positively and significantly related to perceptions of increased leader effectiveness ( $r = .31$  for an  $R^2 = .09$ , a small effect,  $p < .05$ ).

Ideally, group participant numbers for this study would support detecting *small* effects, however this implies the largest sample size. Stevens (2002), as a rule-of-thumb, recommends minimum sample sizes of approximately 20 per variable within each group. Ellison et al. (2022) relied on the mean of FES item scores based on the entire set of item scores from all seven FES facets. The use of the mean item scores is a common practice when using the FES (Ellison et al., 2022; Zhang & Li, 2021) as well as other multi-factor scales and was used in this study. Using Stevens rule-of-thumb (1 variable x 3 groups) results in an FES group sample size of 60 (180 total for three groups). A more fine-grained estimate using G\*Power (Buchner et al., 2021) for an omnibus ANOVA,  $\alpha = .05$ , and statistical power of  $.80$  returns a total sample size of 159 for the three groups based on an effect size of  $f = .25$  (a medium size effect). The same result would be obtained for an omnibus ANOVA for the LMX-MDM. Planned analyses involving work engagement and job satisfaction require multiple regression techniques. Work engagement for this study was expected to be partially predicted from FES scores and LMX-MDM scores (2

independent variables). G\*Power sample size based on an effect of  $f^2 = 0.15$  (a medium effect).  $\alpha = .05$ , and power of  $1 - \beta = 0.80$  with the two independent variables is 68, slightly larger than the ANOVA sample size computed above. Note the work engagement multiple regression sample size applies to a single group bringing total sample size to 204. A second set of multiple regressions to determine if FES scores and LMX-MDM scores can partially predict job satisfaction could include the UWES -9 scores for a total of 3 predictor variables. G\*Power sample size for job satisfaction with the same effect size, alpha level, and power as for work engagement but including work engagement as a predictor requires a sample size of 77, For this study then, a sample size of 77 participants for each of three groups (HL, OL, and RL) totaling 231 participants for the entire study was sufficient to detect medium ANOVA and multiple regression effects.

### **Procedures For Recruitment, Participation, and Data Collection**

Participant recruiting used a panel of respondents recruited to complete marketing and other public surveys.

Participant demographic information included Organization Business Sector (Construction, Education, Finance, Health Care, etc.) and Organization Number of Employees, Participant's Job Title, Years Worked in Organization, Months in Work Location during 2021 - 2022 (6 month minimum), and Work Location (HL - Worked from home, OL - Worked in Company Offices, RL – Worked away from company offices both before and during pandemic) during 2021 and 2022, and Workgroup Number of Employees provide information describing each group. Care giver to minor children (Y – Yes, N -No), and Age (years) were the final demographic variables that provide

limited stratification of the groups. Demographic and biographic elements provided support for evaluating similarity of participants across groups.

### **Instrumentation and Operationalization of Constructs**

All survey instruments were published in the PsycTests database with permissions for each instrument reproduced in Appendix A. Survey instruments are described in the following paragraphs.

#### ***Feedback Environment Scale (FES)***

The Feedback Environment Scale (FES) by Steelman et al. (2004b) measuring employee perceptions of their feedback environment was chosen to determine the presence and magnitude of feedback environment perceptions across the three feedback locations (OL, RL, and HL). The scale includes seven facet measures with Likert responses (1 – 7) corresponding to *Strongly Disagree* through *Strongly Agree* measuring; source availability (5 items), source credibility (5 items), promotion of feedback seeking (4 items), feedback quality (5 items), feedback delivery (5 items), favorable feedback (4 items), and unfavorable feedback (4 items) from both supervisors and coworkers. A sample item is “My supervisor is generally familiar with my performance on the job.” For this study only the supervisory items were planned for use and the mean score of all item scores presented as a single score. The facets (Steelman et al., 2004a) provide internal consistency reliability of each facet score of .82 to .92 and .96 for the entire set of scores. Test-retest reliability scores for facets were in the range of .61 - .77. In terms of Confirmatory Factor Analysis, Steelman et al. (2004a) compared the seven-facet model with both single-factor and two-factor models. The FES seven-facet structure had a

comparative fit index (*CFI*) of .97 compared with *CFI*'s of .91 and .95 for one and two factor models. The construct validity of the FES was examined both as a concurrent relationship and a predictive relationship (5 months later) for the external variables of satisfaction with feedback, motivation to use feedback, and feedback seeking. The FES compared facets had concurrent correlation coefficients of .33 - .73 for satisfaction with feedback, .21 - .40 for motivation to use feedback, and .19 - .45 for feedback seeking. Predictive coefficients of 5-month scores were .37 - .67 for satisfaction with feedback, .07 - .33 for motivation to use feedback, and .02 - .35 for feedback seeking. Additional concurrent correlation coefficients based on feedback and LMX were .37 - .74. The lowest supervisory correlation coefficient was for unfavorable feedback and may reflect supervisors' reluctance to provide negative feedback. Characteristics of the sample upon which the above results were based include 405 participants from two companies with organizational tenures ranging from 1 – 42 years, average of 18 years, job tenures from 1 – 30 years, average 10 years, and 343 males versus 49 females. Ages ranged from 22 – 64 years.

#### ***Multidimensional Measure of Leader-Member Exchange (LMX-MDM)***

Leader-member exchange (LMX) was measured by the LMX-MDM scale developed by Liden and Maslyn (1998b). Four dimensions were defined by the authors for the LMX-MDM, *affect* (3 items) defined as mutual affection based primarily on professional values, *loyalty* (3 items) defined as expression of public support for goals and personal character of the other person, *contribution* (3 items) defined as perception of the level of work activity, and *professional respect* (3 items) defined as the degree to

which each person has built a reputation of excellence in their work. Items were scored with a seven-point Likert scale (1 – 7), corresponding to *Strongly Disagree* through *Strongly Agree*. A sample item is “I respect my manager’s knowledge of and competence on the job.” For this study the mean of all item scores was presented as a single score. Data were collected from 302 working students and 251 organizational employees. Goodness-of-fit statistics indicated that the hypothesized 4-factor model provided a good fit ( $CFI = .986$ ;  $GFI = .960$ ;  $AGFI = .930$ ), and a better fit than the alternative models tested. The four LMX scales were moderately correlated, with coefficients ranging from *.26 to .63* in the student samples and *.32 to .67* in the organizational employee samples. Internal consistency reliabilities were acceptable for the affect, loyalty, and professional respect scales but low for the contribution scale. Coefficient *alphas* were *.90, .78, .60 and .92*, respectively, for affect, loyalty, contribution, and professional respect in the student samples, and *.90, .74, .57, and .89*, respectively, for affect, loyalty, contribution, and professional respect for the organizational employee samples. Test-retest correlations for a subsample of 126 students were *.83, .66, .56, and .79*, respectively, for affect, loyalty, contribution, and professional respect. The dimensions of the LMX-MDM were expected to be significantly correlated with the LMX-7 (an earlier-developed LMX measure). This was confirmed by correlations of *.71, .71, .55, and .70* in the employee samples and *.64, .53, .33, and .42* in the student samples between the LMX-7 and affect, loyalty, contribution, and professional respect. Correlations of *.12, .25, .00, and .00* between satisfaction with co-workers and affect, loyalty, contribution, and professional respect, provide support for the discriminant validity of the LMX-MDM.

***Utrecht Work Engagement Scale-9 (UWES-9)***

A simple measure, the Utrecht Work Engagement Scale-9 (UWES-9; Schaufeli et al., 2006b) was used to measure work engagement. The UWES-9 is a nine-item instrument of work engagement with *vigor*, *dedication*, and *absorption* scales. Each item is scored on a 7-item Likert Scale (1- 7). A sample item is “At my work, I feel bursting with energy,” For this study the mean of all nine item scores was presented as a single score. Utrecht Work Engagement Scale-9 development is based on 10 different national samples totaling 14,521 individuals and represents a shortened version of the original 17-item Utrecht Work Engagement Scale. The authors note researchers’ preference for a shortened scale to reduce attrition of study participants faced with lengthy surveys as a pragmatic factor in developing a shortened scale. In choosing UWES-9 scale items from a pool of items, a single item for each scale was chosen based on its face validity. A regression technique was then used to assess additional scale items based on the highest  $\beta$  values. The procedure was repeated until no additional items emerged across the country samples or no substantial variance was added by the next item. In each scale, three items emerged. Across all three scales, internal consistency, Cronbach’s alpha exceeded .70 and for the nine-item scale on all national samples exceeded .80. While noting that both a one-factor and the UWES-9 three-factor model were not invariant across the national samples with factor coefficients and covariances between factors differing, the authors conclude that the three-factor model was better at measuring work engagement than the one factor model:  $\Delta\chi^2(30) = 2917.23, p < .001$ . Compared with the original UWES

seventeen-item scale, the nine-item version shares more than 80% of the longer instrument's variances.

***Job Satisfaction (Affectivity, Burnout, and Absenteeism Scales)***

Job satisfaction, a 6-item subscale, from the Affectivity, Burnout, and Absenteeism Scales (ABAS) developed by Iverson et al. (1998b) was the final measure planned for the study. For this study items were scored on 5-point Likert scale (1 – 5) Strongly Disagree through Strongly Agree). A sample item is “I find real enjoyment in my job,” For this study the mean of all item responses will be used as a single job satisfaction score. Job satisfaction, generally, is an outcome associated with employees' subjective judgement of their jobs. Job satisfaction, regardless of the location, HL, OL, RL might be expected to be unaffected by the individual locations. Candel and Arnautu (2021), however, argue that the relationship between telecommuting and job satisfaction remains unclear with some studies finding negative relationships and others positive relationships. Iverson et al. (1998a) development of the ABAS was based on a model [ $\chi^2(996) = 1745.91, p < .001; GFI = .87; CFI = .91$ ] where the outcome of job satisfaction is predicted on negative effects from emotional exhaustion and depersonalization offset by personal accomplishment positive effects. The model was tested on a sample of 487 hospital employees volunteering to participate in the study. Responses were on a 5-point Likert scale (5 = *Strongly Agree* to 1 = *Strongly Disagree*). Iverson et al. (1998a) report a *sample mean of 3.46, standard deviation of 0.74, and Cronbach's  $\alpha = .85, p < .05$ .*

### **Data Analysis Plan**

Data analysis in this study was centered around determining differences among the feedback locations of HL, OL, and RL where they were statistically different from one another on several dependent variables. All analyses were planned to use IBM SPSS version 28 or later versions. RQ1 examined the three levels of the location independent variable with the Feedback Environment Scale as the dependent variable measuring workers' evaluation of their feedback environment. A second research question, RQ2, examined differences in LMX among the three feedback locations. LMX appears in the literature as a covariate and modifier of feedback behavior. Together, feedback environments and LMX were characterized as supporting desirable outcomes of work engagement and job satisfaction. RQ3 examined this proposition among the work locations for work engagement and RQ4 for job satisfaction.

Participant data screening was planned to include descriptive statistics (means and standard deviations) reported for all variables (FES scores, LMX-MDM scores, UWES-9 scores, and scores on the Job Satisfaction scale from the ABAS instrument). Descriptive statistics were calculated both for each feedback environment and in total. The four scales were planned to have internal reliability estimates calculated, specifically Cronbach's Alpha, and reported for each feedback environment and in total. SPSS Cronbach's alpha reliability process returns both a value based on raw item scores and on standardized item scores. The process also produced an item-level cross correlation matrix for the entire set of scale items. Lastly, a list of statistics for each scale item was reported which included change to the total item correlation and to the overall Cronbach's alpha based on deletion

of each individual item. Information from the matrices was useful in identifying items with values that suggest they were not or only weakly measuring the construct intended (Warner, 2013).

Statistical techniques planned for use in addressing the research questions included one-way between-subjects analysis of variance (ANOVA) and multiple regression (MR). The study independent variable was the categorical feedback environment with its previously described three location levels. Dependent variables were Feedback Environment Scores (FES) expected to differ significantly across the three locations, Leader-member Exchange Scores (LMX-MDM) which, based on theory, were expected to vary similar to the FES scores, Utrecht Work Engagement-9 Scores (UWES-9) partially predictable based on FES and LMX-MDM scores, and job satisfaction scores from the job satisfaction scale in the Affectivity, Burnout, and Absenteeism Scales (ABAS-JS) also partially predicted by FES and LMX-MDM scores were all mean Likert-scored items. The first research question is:

RQ1: Did employees' perceptions of their feedback environment in different work locations (HL, OL, and RL) contribute to statistically significant differences in their feedback ratings?

*H<sub>0</sub>1*: Employee ratings were not statistically different among the three locations.

*H<sub>a</sub>1*: Employee ratings were statistically different among the three locations.

The first RQ was examined using Analysis of Variance (ANOVA) comparing the scores for the feedback environment measure (FES) based on the three locations (HL-working from individuals' homes, OL-working from their organizations' offices, and RL-employees working from remote locations before and during the pandemic). If the ANOVA was significant a Tukey HSD (honestly significant difference) post hoc test was conducted to identify which work locations differed in terms of feedback environment.

The second research question was:

RQ2: Did employees' work locations (HL, OL, and RL) contribute to statistically significant differences in employees' perceptions of LMX?

*Ho2*: Employee work location did not contribute to statistically significant differences in employee perceptions of LMX.

*Ha2*: Employee work location contributed to statistically significant differences in employee perceptions of LMX.

The second RQ also was examined using Analysis of Variance (ANOVA) comparing the LMX-MDM scores based on the three locations. If the ANOVA was significant a Tukey HSD (honestly significant difference) post hoc test was conducted to identify which work environments differ in terms of LMX-MDM scores.

The third research question was:

RQ3: Did employees' work locations (HL, OL, and RL) predict employees' ratings of their work engagement?

*Ho3*: Employee work location did not predict employee ratings of their work engagement.

*Ha3*: Employee work location predicted employee ratings of their work engagement.

The third RQ was examined using hierarchical multiple regression (MR) to predict work engagement based on UWES-9 scores as predicted by FES scores based on the three feedback locations represented by a single ordinal variable (HL – 1, OL – 2, and RL- 3) to meet MR data requirements. The ordinal variable was included to accommodate separate consideration of the three levels of feedback environment in multiple regression analyses. A follow-on analysis involving addition of the LMX-MDM scores was planned as a second predictor to the regression model based on the theoretical association of LMX with feedback and feedback environments.

The fourth research question was:

RQ4: Did employees' work locations (HL, OL, and RL) predict employees' ratings of their job satisfaction?

*Ho4*: Employee work location did not predict employee job satisfaction ratings.

*Ha4*: Employee work location predicted employee rating so their job satisfaction.

The final research question assessed employees' perceived job satisfaction using the job satisfaction scale from the Affectivity, Burnout, and Absenteeism Scales (Iverson et al., 1998b). The RQ4 MR used the mean item FES scores and mean LMX-MDM scores for each work location to predict job satisfaction.

### **Threats to Validity**

Creswell and Creswell (2018) present a list of threats to both internal and external validity in quantitative studies. Several internal threats were applicable to this study. A concern throughout the planning and preparation for this study had been the effect of the time between actual COVID-19 pandemic events and participants responding with their perceptions of feedback environments, leader-member exchange practices, and perceptions of pandemic work engagement and job satisfaction. The 2021-2022 date range emerged, in part, due to the desire to capture experiences during the late pandemic months when participants would have overcome or adjusted to pandemic upheavals. The effect of elapsed time, however, might have led to survey results at lower levels (a regression to the mean effect) rather than results fully reflecting the perceptions of pandemic feedback environments.

Threats to external validity in survey designs generally involve the selection of instruments employed in the survey (Creswell & Creswell, 2018). Instruments chosen for this study have had good reliability and validity estimates, as summarized previously. They also were based on established theory and were either revisions to existing instruments or instruments combining features of earlier instruments. Perhaps the most important threat to external validity was the uniqueness of the COVID-19 pandemic and the resulting upheaval to conventional life. While time may have a mellowing effect on the emotional aspects of the pandemic, school, and business closures, the 7x24 counting of deaths attributable to the pandemic by both government and popular media, and the palpable threat to individuals' lives add factors that other research is needed to examine.

This study's intent was to identify and compare feedback environment differences among three types of work feedback environment (HL, OL, and RL) which forced widespread changes in work practices.

### **Ethical Procedures**

Potential participants were a panel of respondents recruited to complete marketing and other public surveys. The study was approved by the Walden University Institutional Review Board, IRB Approval # 08-15-23-0031204. Included in the survey was an informed consent page containing a description of the expectations of their participation, the confidentiality of their participation and responses, the study's relation with the COVID-19 pandemic, the study author's contact email address, Walden IRB phone and email links, and a link to complete the survey. Clicking on the "Next" button took the participant to the survey. Once participants completed the survey, they were routed to a Thank-You page. There were no follow-up contacts planned for this study.

Anonymity of participants and data confidentiality were maintained by not collecting participants' names and personal identifying information nor participants' organization names. The recruitment process did not track responses to recruitment emails and did not record the identity of individuals sent a solicitation email.

Consequently, both participants and organizations remained anonymous in study data. All data was stored in encrypted format on secured computing equipment. Access was restricted to the research team and was password protected. Dissemination of research data was not planned except through the study's published results. Requests for study data must be submitted to the Walden IRB for review and approval. Once the study is

completed and accepted by Walden, all data associated with the study will be removed and copied to offline storage and deposited in a secure vault. Data will be retained in the vault until the designated destruction date when it will be removed from the vault and destroyed.

### **Summary**

Feedback-seeking behavior (FSB) in the Ashford et al. (2016) model was presented as supporting employee self-regulation and influenced by antecedent conditions on the part of the seeker, the target (expected source of the feedback), and the context. These antecedents were moderated by the seeker's sense of empowerment, feedback-seeking effort, sense of task interdependence, and level of uncertainty. The sum of antecedents and moderators evaluated by seekers lead to seeker choices of frequency, tactics, and acceptance of positive and negative feedback. Feedback-seeking, contextually, is implied to result from interactions between the feedback-seeker and feedback source.

The COVID-19 pandemic created a novel context in the FSB model marked by millions of office workers (Dey et al., 2021) being displaced to work from their homes (HL) with select groups of office workers continuing to report to their organizational offices (OL), and a relatively small number of pre-pandemic workers continuing to work remotely (RL), mostly from offices in their homes. Where prior to the pandemic working remotely was a rare and only occasional work environment, during the pandemic it included approximately 33% of the workforce (Dey et al., 2021). Enabled by the existing widespread availability of laptop computers, home high-speed internet connections, and

video-conferencing applications (Zoom, for example), employers rapidly relocated office workers from OL to HL environments. Despite the perhaps inevitable non-work household interruptions (Leroy et al., 2021), dulling fatigue from videoconferencing overuse (Bennett et al., 2021), and employers' doubts about the efficacy of offsite work arrangements with respect to worker conscientiousness (Venkatesh et al., 2021), employers and employees continued to function during the pandemic. Celebrating the apparent success of the shift from the OL to HL environments evoked the question of were the three locations (HL OL, and RL) equivalent in supporting employees when measured on a common job characteristic such as feedback? Handke et al. (2022) propose a virtual team model providing feedback from the work itself, technology support, employee knowledge to work independently, and supervisory electronic communication as a model for virtual workplaces (HL for example) and work engagement replacing or augmenting the customary in-person employee-supervisor interactions in OL locations. An initial research question, RQ1, was did the employee work location contribute to statistically significant differences in scores on the Feedback Environment Scales (FES) developed by Steelman et al. (2004b)? The FES instrument was designed to measure employee perceptions of the favorability of feedback environment behavioral aspects irrespective of the physical environment. Varying responses among the three locations (HL, OL, and RL) suggested employees perceived differences in the favorability of the feedback environments measured across the three physical environments.

Within the Ashford FSB model, leader-member exchange (LMX) was described as a relational contextual antecedent and a second contextual antecedent along with the

physical locations (HL, OL, and RL). LMX conceptualized by Dansereau et al. (1975) was a leadership exchange relationship between leaders and selected employees where leaders grant job latitude, participation in decision-making, support for the employee's actions, and consideration of the employee in exchange for greater time and effort, assumption of greater responsibility, and enacted commitment to the work unit's success from the employee. Employees without an LMX relationship were supervised based on job requirements and organizational standards. LMX, according to Graen and Uhl-Bien (1995) was a social exchange process beginning as a transactional relationship and potentially evolving into a transformation relationship. RQ2 examined the LMX ratings from the LMX- MDM scale (Liden & Maslyn, 1998b) among the three environments to determine if employees' overall LMX ratings differed across the three environments. Peng and Lin (2016) propose a model where supervisory feedback was mediated by LMX and promotes organizational citizenship behaviors. Based on this model, it was expected that high supervisory feedback environmental ratings were likely to be associated with high LMX ratings. High LMX ratings along with high FES ratings could offer support for Peng and Lin's model.

Outcomes of the Ashford et al. (2016) FSB model include task performance, contextual performance, creative performance, and learning. These all imply corresponding engagement with a person's work. According to Schaufeli et al. (2006a) work engagement is characterized by vigor, dedication, and absorption. These three work engagement dimensions suggest a relationship with work performance. However, the severity of the COVID-19 pandemic and its suddenness clearly created a variety of

concerns beyond the workplace that may have produced distractions to work engagement and performance. Jankelová et al. (2021) studied the mediating effect of feedback-seeking behavior (FSB) on the relationship between perceived organizational support and work engagement finding that FSB increased the intensity of perceived organizational support on work engagement. Vieira dos Santos et al. (2022) in an online survey of Portuguese employees reported that job insecurity was negatively influenced by job and organizational resources. Their data showed that perceived organizational support, job autonomy, feedback, and work engagement all were negatively correlated with job insecurity. RQ3 examined FES scores as they predicted employees' assessment of their work engagement in the three work locations. A linear relationship between employee FES scores and UWES-9 scores (an instrument measuring work engagement developed by Schaufeli et al., 2006b) supports the implication that higher UWES-9 scores predicted by high FES scores suggest a work environment supporting work engagement.

Job satisfaction, as defined by Credé (2018) is a job attitude based on employee evaluation of their job and job experiences. The multidimensional nature of individual evaluations and experiences leads them to be characterized as, at least in part, affective responses, the feelings developed in response to the situation and experience. Gajendran and Harrison (2007) in a metaanalysis concluded that telecommuting (working from home) was positively related to individuals' job satisfaction and job performance but recognized that it might also lower job satisfaction based on lower levels of feedback and task significance. Candel and Arnautu (2021) observed that telecommuting resulted in a significant negative relationship between psychological entitlement and job satisfaction.

Working from the organization's workplace, conversely, showed no significant effects on job satisfaction. RQ4 purposely examined job satisfaction as predicted by FES scores from the individual work locations using the Job Satisfaction scale from the Affectivity, Burnout, and Absenteeism Scales, Iverson et al. (1998b). A positive linear relationship between FES and Job Satisfaction scale could suggest that a specific feedback environment supported job satisfaction.

Answers to the above research questions were intended to add employees' own perceptions (FES scores) of three feedback environments to the relatively sparse field research and extend the abundant discussion of feedback and feedback environments in published studies conducted with students in learning settings. Were feedback environments operationally equivalent based on employee perceptions or differentiated by employee according to employee perceptions? Secondly, LMX in the literature appears intertwined with feedback, its sources, and feedback environments. Comparing employee ratings of LMX among the three feedback environments could offer some insight into the relationship between perceptions of feedback environments and LMX. The two outcome measures, work engagement and job satisfaction, were intended to measure the efficacy of the feedback environments and address the question, did employees' perceptions of their feedback environments predict their attitudes about their work and job satisfaction.

Chapter 4 reviews the outcome of data collection along with describing the actual sample collected. Sample descriptive statistics and analysis results were reported based on the research questions and post hoc analyses. The results of the analyses were

summarized and transitional material from the findings were introduced to lead the reader to the prescriptive material in Chapter 5.

## Chapter 4: Results

### Introduction

The purpose of this study was to examine employee perceptions of their feedback environments across three work locations: working from home, working in employer offices, and pre-pandemic remote work locations. Prior employee feedback studies focused on employees working at employer sites (Anseel et al., 2015; Ashford et al., 2016, Chen et al., 2007; Chun et al., 2014), and relatively recently begun to examine the experiences of employees working remotely (Griffith et al., 2018; Handke et al., 2022; Warrilow et al., 2020). The COVID-19 pandemic caused a major shift from employer sites to home locations (Dey et al., 2020) creating opportunities to study employees' experiences in newly formed working-from-home locations. The exploratory nature of the study influenced the choice of a measure of feedback environment as the major dependent variable based on its relevance to day-to-day employee performance (Ashford & Cummings, 1981, 1983, 1985). Additionally, a measure of leader-member exchange was chosen as a second dependent variable based on its relevance to employee performance (Hackman & Oldham, 1975), and as a factor in feedback environments (Ashford et al., 2016). Outcome variables of work engagement (Schaufeli et al., 2006a) and job satisfaction (Iverson et al., 1998a) were chosen as measures readily reported by employees and applicable across jobs.

Research questions were formed to explore similarities and differences across the three work locations. The first question was intended to identify differences among the employee feedback environment ratings. A second question, similarly, examined

variations in leader-member exchange. The third and fourth research questions examined the levels at which feedback environment and leader-member exchange influenced work engagement and job satisfaction outcomes. The underlying hypotheses being that feedback environment and leader-member exchange both individually and jointly would positively influence work engagement and job satisfaction.

Chapter 4 begins with a description of the data collection process and the resulting study sample. A results section, organized around each research question, reports the results of the study's statistical findings. A summary section condenses the results of each research question into the principal findings in this chapter and introduces Chapter 5 which is focused on interpretation and recommendations based on this study.

### **Data Collection**

Data collection was conducted during the first week of October 2023. Participants were recruited using a market research platform offering a survey construction and hosting service and a survey panel recruiting service. Both services were used for this project. Survey respondents were full-time employees and drawn from a panel of respondents recruited to complete marketing and other public surveys. Respondents listed over 100 different job titles, a dozen different organizational sectors, and organizations employing from 11 to 500,000 people providing a representative sample of office workers.

Initial selection criteria were adults (minimum age of 18 years) working full-time in the United States. Potential participants were presented with one of three survey location conditions based on the participants' work location (working from home – HL,

working from their organization's offices – OL, or RL, working away from their organization's office under a pre-pandemic work arrangement) during the period January 2021 through December 2022. The surveys were identical except for a single location qualifying question on the participant having worked a minimum of six months at their chosen location. For the HL survey, 92 responses out of 121 (76%), for the OL survey, 91 of 128 (71%) and for the RL survey, 90 of 128 (70%) met the qualifications.

An examination of missing values and the number of response options chosen for the entire survey led to establishing cutoffs of 3 missing values and responses in a minimum of three of the response options. Response options were the individual Likert scale choices, for example: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree. Setting a minimum number of response options identified surveys where participants chose the same responses for all or nearly all survey items. Surveys with three or fewer missing values had the missing values set to the midpoint of the response choices, "Neither Agree nor Disagree." It was discovered that eight of the remaining surveys had "Strongly Agree" responses to all questions in the feedback environment portion of the survey (an impossible set of responses), which led to additional rejections and resulted in valid responses of HL – 80, OL – 80, and RL – 72 totaling 232 acceptable completed surveys.

Accepted survey respondents identified as 127 (55 %) male and 104 (45 %) female, with 1 missing a response to gender. Responses to a question on responsibility for the care of a child under the age of 18 were 163 (70%) "Yes" and 69 (30%) "No." Ages ranged from 21 to 65, with a mean of 40 and a standard deviation of 9.6 years. Years

worked in the respondents' organizations ranged from 1 to 41, with a mean of 9.1 and a standard deviation of 6.8 years. Household incomes based on midpoints of income range choices ranged from \$5500 to over \$200,000 with a mean of \$101,600 and a standard deviation of \$47,500. Means and standard deviations for months worked in the study location conditions were HL (9.4, 3.95), OL (10.6, 4.35), and RL (13.4, 8.41). The longer duration reported for the RL location condition was influenced by the requirement to have worked in this location prior to the COVID-19 pandemic.

### **Results**

Sample descriptive statistics were summarized in Tables 1 and 2. Variables were referenced by indicating a descriptive name (Feedback Environment, Leader-Member Exchange, Work Engagement, and Job Satisfaction). *Cronbach's  $\alpha$*  values in Table 1 were computed for each measure used in the study as an estimate of the reliability of the underlying measure's item homogeneity. The resulting values represent, for each measure on the total sample of 232 individuals, the inter-item correlations indicating that the measure's results were internally consistent (Warner, 2013). For each dependent variable (DV), an average score was computed from the measure's item response scores. Each respondent's DV scores were represented by these average scores as feedback environment, leader-member exchange, work engagement, and job satisfaction. Table 1 also includes *Means* and *Standard Deviations* for each of the DVs along with their range on 7-point Likert scales for feedback environment, leader-member exchange, and work engagement. The job satisfaction DV was reported on a 5-point Likert scale. Histograms of each DV indicated approximately normal distribution for feedback environment and

work engagement. Both leader-member exchange and job satisfaction were more heavily skewed toward the higher end of their ranges. *Pearson's Correlations* calculated for all DV pairs were the final set of statistics reported in Table 1. The positive correlation between feedback environment and leader-member exchange was expected as an indication of the strength of one's feedback environment as influenced by supportive supervision represented by leader-member exchange (Ashford et al., 2016; Peng & Lin 2016). Similarly, work engagement and job satisfaction often appear as covariates in research articles on work attitudes, employee commitment and job involvement (Credé, 2018) and both were reported as feedback-seeking outcomes (Ashford et al., 2016). Their positive correlation confirmed the previously recognized relationships. The more modest correlations between feedback environment and both work engagement and job satisfaction compared with larger correlations between leader-member exchange and work engagement and job satisfaction suggest that participants' feedback environment ratings less frequently were recognized as influencing work engagement and job satisfaction while leader-member exchange was more frequently credited with the levels of these outcomes.

**Table 1**

*Total Sample Descriptives*

Variable	N	M	SD	95% CI for Mean	Cronbach's <i>a</i>	Pearson's Correlations			
						FESAVG	LMXAVG	WENAVG	JSAAVG
Feedback Environment <sup>a</sup>	232	5.0	0.86	4.9 - 5.1	.91	-			
Leader-Member Exchange <sup>b</sup>	232	5.5	1.20	5.4 - 5.7	.95	.697**	-		
Work Engagement <sup>c</sup>	232	5.2	1.10	5.1 - 5.3	.91	.398**	.680**	-	
Job Satisfaction <sup>d</sup>	232	3.8	0.80	3.7 - 3.9	.86	.411**	.686**	.831**	-

<sup>a</sup> Feedback Environment is measured by The Feedback Environment Scale (32 items), Steelman et al. (2004b).

<sup>b</sup> Leader-Member Exchange is measured by the LMX-MDM (12 items), Liden & Maslyn (1998b).

<sup>c</sup> Work Engagement is measured by the UWES-9 (9 items), Schaufeli et al. (2006b).

<sup>d</sup> Job Satisfaction is measured by the Job Satisfaction scale (6 items) from the Affectivity, Burnout, and Absenteeism Scales, Iverson et al. (1998b).

\*\* Correlation is significant at the 0.01 level (2-tailed)

The independent variables (IV) were the three work locations employees experienced during the COVID-19 pandemic (HL – Working from Home, OL – Employer Offices, and RL – Remote Work Arrangement). Table 2 reports *Means*, *Standard Deviations* and *Ranges* for the dependent variables at each location level.

**Table 2**

*Location Level Sample Descriptives*

Variable	Working from Home (HL) <i>N</i> = 80			Employer Offices (OL) <i>N</i> = 80			Remote Work Arrangement (RL) <i>N</i> = 72			Total Sample <i>N</i> = 232		
	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Feedback Environment *	5.1	.74	3.52 - 6.77	5.0	1.01	2.88 - 6.91	5.0	.79	2.94 - 6.75	5.0	0.86	2.88 - 6.91
Leader-Member Exchange *	5.8	.96	2.50 - 7.00	5.1	1.50	1.75 - 7.00	5.7	.95	2.50 - 7.00	5.5	1.20	1.75 - 7.00
Work Engagement *	5.4	.91	3.33 - 6.99	5.0	1.23	1.78 - 7.00	5.3	1.09	2.44 - 7.00	5.2	1.10	1.78 - 7.00
Job Satisfaction **	4.0	.62	2.17 - 5.00	3.6	.92	1.33 - 5.00	3.9	.81	1.17 - 5.00	3.8	0.80	1.17 - 5.00

\* Indicates a 7-point Likert scale.

\*\* Indicates a 5-point Likert scale.

### Research Question 1

The first research question was Did employees' perceptions of their feedback environment in different work locations (HL – Working from Home, OL – Working in Employer Offices, and RL – Existing Remote Work Arrangements) contribute to statistically significant differences in their feedback ratings?

A one-way ANOVA compared the mean feedback environment scores on the three location groups. There were no statistically significant differences among group means,  $F(2,229) = .359, p = .699$ . These results failed to reject the RQ1 null hypothesis that the location feedback environment mean scores were essentially equal.

### Research Question 2

Based on feedback environment's dependence on supervisory support (Ashford et al., 2016; Peng & Lin, 2016), a second research question recognizing this dependency was formulated to measure leader-member exchange as perceived by survey participants. The

question was “Did employees’ work location (HL, OL, and RL) contribute to statistically significant differences in employees’ perceptions of leader-member exchange?”

Scores on the leader-member exchange and the feedback environment instrument were positively correlated, but the means of the leader-member exchange measures were not similar across the work locations. The Pearson correlation reported in Table 1 between feedback environment and leader-member exchange scores was statistically significant  $r(232) = .697, p < .001$  (two-tailed). The  $r^2$  was .486, indicating that approximately 49% of the variance in leader-member exchange scores could be predicted from feedback environment scores. A one-way ANOVA compared the mean leader-member exchange scores on the three location groups. The Levene test for homogeneity of variance was computed to identify serious violations of variance homogeneity among the three location groups. Significant violations were found;  $F(2,229) = 14.933, p < .001$ . A subsequent Welch test,  $F(2, 149.227) = 5.549, p = 0.005$ , indicated the means were not equal, and a Tukey HSD test indicated that the OL mean could not be included in the same set of means as the HL and RL means based on a harmonic mean sample size of 77.143. Boxplots indicated that the interquartile range for the OL location had an upper bound close to that of the HL and RL locations but with a lower bound considerably lower than the HL and RL lower bounds. This suggested that OL location participants rated their supervisors more frequently at the low end of the leader-member exchange scale items than in the other locations. The overall F statistic for the one-way ANOVA was statistically significant,  $F(2,229) = 7.102, p = .001$ . The corresponding effect size was  $\eta\text{-squared} = .058$ , indicating that more than 5% of the variance in leader-member

exchange scores was explained by the respondents' locations. While a small effect, it does confirm that there were statistically significant differences among the three work-location leader-member exchange scores.

These results support the alternate hypothesis that employees' perceptions of their leader-member exchange relationships with their supervisors differed significantly among the three location conditions.

### **Research Question 3**

The third research question considered employees' assessments of their work engagement. Did employees' work locations (HL – Working from Home, OL – Employer Offices, and RL – Remote Work Arrangement) explain employee ratings of their work engagement? An assumption for this research question was that scores on the Utrecht Work Engagement (UWES-9) instrument (Iverson, et al., 1998b) measuring work engagement, the outcome variable, would vary based on work location and either or both feedback environment and leader-member exchange. Regression models calculated for feedback environment and leader-member exchange scores from the total sample and each location to explain work engagement scores are presented in Table 3.

Histograms of feedback environment, leader-member exchange, and work engagement scores show that all were reasonably normally distributed. Feedback environment scores had a slight positive skew. Both leader-member exchange and work engagement scores were negatively skewed and limited by the upper boundaries of their respective scales. Means, standard deviations, and correlations for these scores for the

entire sample ( $N = 232$ ) are presented in Table 1. Means and standard deviations for the individual location samples are presented in Table 2.

Bivariate regressions using the total sample of feedback environment scores on work engagement scores and leader-member exchange scores on work engagement scores appeared to suggest a statistically significant, feedback environment to work engagement relationship for the total sample,  $r^2(230) = .16$ ,  $p < .001$ ,  $Y' = 2.637 + .510X$ . A similar bivariate regression resulted in a larger statistically significant leader-member exchange to work engagement relationship,  $r^2(230) = .46$ ,  $p < .001$ ,  $Y' = 1.765 + .623X$ .

Initially, feedback environment and leader-member exchange scores were examined in relation to work engagement individually. Overall,  $R$  values were higher when leader-member exchange scores were the sole predictors. Feedback environment scores as lone work engagement predictors failed to reach significance in the working from home (HL) model,  $F(1, 78) = 1.660$ ,  $p = .201$ . They were, however, statistically significant for the total sample,  $F(1, 230) = 43.388$ ,  $p < .001$ , the OL sample,  $F(1, 78) = 42.615$ ,  $p < .001$ , and the RL sample,  $F(1, 70) = 7.151$ ,  $p = .009$ . Based on these results, the null hypothesis was rejected. Feedback environment, as a single predictor, accounts for approximately 16% of the total sample variance  $r^2(230) = .159$ ,  $p < .001$ , 35% for the OL variance,  $(r(78) = .353$ ,  $p < .001$ , and 9% for the RL variance,  $r^2(70) = .093$ ,  $p = .009$ .

A similar set of regression models calculated using leader-member exchange scores to predict work engagement scores had statistically significant results for the total

sample and HL, OL, and RL models. The resulting  $r^2$  values were 46% for the total sample,  $r^2(230) = .462, p < .001$ , 24% for HL,  $r^2(78) = .243, p < .001$ , 58% for OL,  $r^2(78) = .582, p < .001$ , and 47% for RL,  $r^2(70) = .466, p < .001$ . The higher  $r^2$  values for leader-member exchange scores were consistent with the Table 1 correlation coefficients that were higher between leader-member exchange and work engagement and lower between feedback environment and work engagement.

Multiple regression was used to evaluate feedback environment and leader-member exchange together and was summarized in Table 3. The total sample regression was statistically significant,  $R^2 = .473, F(2, 229) = 102.893, p < .001$ . Approximately 1% of the overall variance in work engagement scores was directly attributable to feedback environment when leader-member exchange was statistically controlled,  $t(229) = -2.2, p = .029, sr^2 = .011$ . When feedback environment was statistically controlled,  $t(229) = 11.695, p < .001, sr^2 = .315$ , approximately 32% of the work engagement variance was attributable to leader-member exchange. Additionally, the work engagement variance shared between feedback environment and leader-member exchange combined was (*shr. sr<sup>2</sup>* = .201) 20%. For the total sample the combination of feedback environment and leader-member exchange in the model along with their shared variance accounted for a total of 53% of the variance in work engagement.

Multiple regressions for each location using both feedback environment and leader-member exchange together were statistically significant. R-squared values were HL  $R^2 = .265, F(1, 77) = 25.567, p < .001$ , OL  $R^2 = .585, F(1, 77) = 42.912, p < .001$ , and RL  $R^2 = .502, F(1, 69) = 56.630, p < .001$ . Feedback environment scores for the HL

location,  $t(2, 77) = -1.520, p = .133$ ), did not reach the significance level. The Pearson correlation coefficient between work engagement and feedback environment for the HL location was relatively small at  $.144$  indicating a weak association. Likewise, for the OL location feedback environment scores,  $t(2, 77) = -.757, p = .451$ , did not reach the significance level. More important were the  $sr^2$  values for feedback environment and leader-member exchange which varied considerably among models suggesting that, in addition to the differences in mean work engagement scores among locations, the work engagement models revealed large differences between the feedback environment and leader-member exchange ratings. For RQ3, employee's work locations did influence their perceptions of work engagement and the null hypothesis was rejected.

**Table 3**

*Work Engagement Regression Models*

Variable	N	R	R <sup>2</sup>	F	Sig.	b	t	Sig.	sr	sr <sup>2</sup>	shr: sr <sup>2</sup>
<b>Feedback Environment</b>											
Work Engagement (Total Sample)	232	.398	.159	43.388	<.001	.510	6.597	<.001			
Working from home (HL)	80	.144	.021	1.660	<b>.201</b>	.179	1.288	<b>.201</b>			
Employer Offices (OL)	80	.594	.353	42.615	<.001	.724	6.528	<.001			
Remote work arrangement (RL)	72	.304	.093	7.151	.009	.419	2.674	.009			
<b>Leader-member Exchange</b>											
Work Engagement (Total Sample)	232	.680	.462	197.646	<.001	.623	14.059	<.001			
Working from home (HL)	80	.493	.243	25.020	<.001	.470	5.002	<.001			
Employer Offices (OL)	80	.763	.582	108.445	<.001	.632	10.414	<.001			
Remote work arrangement (RL)	72	.683	.466	61.150	<.001	.789	7.820	<.001			
<b>Feedback Environment and Leader-member Exchange Combined</b>											
Work Engagement (Total Sample)	232	.688	.473	102.892	<.001						
Feedback Environment						-.188	-2.200	.029	-.105	.011	
Leader-member Exchange						.717	11.695	<.001	.561	.315	0.147
Working from home (HL)	80	.515	.265	25.567	<.001						
Feedback Environment						-.219	-1.520	<b>.133</b>	.148	.022	
Leader-member Exchange						.563	5.056	<.001	.494	.244	-0.001
Employer Offices	80	.765	.565	42.912	<.001						
Feedback Environment						-.119	-.757	<b>.451</b>	-.056	.003	
Leader-member Exchange						.698	6.551	<.001	.481	.231	0.331
Remote work arrangement (RL)	72	.708	.502	56.630	<.001						
Feedback Environment						-.342	-2.215	.030	-.188	.035	
Leader-member Exchange						.977	7.525	<.001	.640	.410	0.057

*Note.* The  $sr^2$  column represents the variance in work engagement directly attributed to the feedback environment and the leader-member exchange relationship. The  $shr: sr^2$  column represents the additional variance in work engagement attributed to the combination of the feedback environment and the leader-member exchange relationship. The sum of the three values represents the total variance in work engagement represented by the two predictor variables.

#### Research Question 4

The fourth research question, similar to RQ3, examined employees' assessment of their job satisfaction. Did employees' work locations (HL – Working from Home, OL – Employer Offices, and RL – Remote Work Arrangement) explain varied employee ratings of their job satisfaction. Scores on the job satisfaction scale from the Iverson et al. (1998b) Affectivity, Burnout, and Absenteeism Scales (ABAS) were expected to vary based on work location and either or both feedback environment and leader-member exchange. Regression models of feedback environment scores and leader-member exchange scores on job satisfaction scores from the total sample and each location are presented in Table 4.

Histograms of job satisfaction scores showed they were reasonably normally distributed, positively skewed, and limited by the upper boundary of the measure. Means, standard deviations, and correlations for the total sample ( $N = 232$ ) are presented in Table 1 and means and standard deviations for the individual location samples are presented in Table 2.

Bivariate regressions using the total sample of feedback environment scores on job satisfaction scores and leader-member exchange scores on job satisfaction scores appeared to suggest a statistically significant feedback environment to job satisfaction relationship,  $r^2(230) = .169, p < .001, Y' = 1.884 + .385X$  and a stronger relationship  $r^2(230) = .443, p < .001, Y' = 1.356 + .447X$  for leader-member exchange scores. These relationships were nearly identical to these same regression models for the work engagement outcome results discussed in RQ3. The pattern of higher  $R$  values associated

with leader-member exchange scores observed for the work engagement outcome was repeated for the job satisfaction outcome. Feedback environment scores as the lone job satisfaction predictor failed to reach significance in the working from home (HL) model,  $F(1, 78) = 3.439, p = .067$  and the RL model,  $F(1, 70) = 2.845, p = .096$ . They were, however, statistically significant for the total sample,  $r^2(230) = .169, F(1, 230) = 46.731, p < .001$ , and the OL sample,  $r^2(230) = .420, F(1, 78) = 56.536, p < .001$ . A regression model including both feedback environment and leader-member exchange scores from the total sample to predict job satisfaction scores was statistically significant,  $r^2(229) = .448, F(2, 229) = 93.107, p < .001$ . However, only leader-member exchange had a statistically significant regression coefficient  $b = .495, t = 10.775, p < .001$ . Based on these results, the null hypothesis was rejected for the OL location. Feedback environment, as a single predictor, accounts for approximately 17% of the total sample variance, and 42% for the OL location variance.

Bivariate regression models calculated using leader-member exchange scores to predict job satisfaction scores had statistically significant results for total sample and for the HL OL, and RL models. The resulting  $r^2$  values were 44% for the total sample  $r^2(230) = .443, p < .001$ , 23% for HL,  $r^2(78) = .231, p < .001$ , 59% for OL,  $r^2(78) = .585, p < .001$ , and 35% for RL,  $r^2(70) = .353, p < .001$ . The higher leader-member exchange  $r^2$  values were consistent with the Table 1 correlation coefficients between leader-member exchange and job satisfaction. Feedback environment as a predictor for job satisfaction in the total sample was not significant when paired with leader-member exchange.

Multiple regressions for the total sample and each location using both feedback environment and leader-member exchange as predictors were all statistically significant. In the total sample model,  $R^2 = .448$ ,  $F(2,229) = 93.107$ ,  $p < .001$ . However when leader-member exchange was controlled, feedback environment did not reach statistical significance,  $t(229) = -1.510$ ,  $p = .132$ . Conversely, when feedback environment was controlled, leader-member exchange was statistically significant,  $sr^2 = .280$ ,  $t(229) = 10.775$ ,  $p < .001$ . These results suggest that the overall variance in the entire sample job satisfaction scores was attributable to leader-member exchange.

Feedback environment scores for the HL and OL locations also did not reach statistical significance. When leader-member exchange was controlled for the HL location, feedback environment was  $t(229) = -.681$ ,  $p = .498$ , and for the OL environment,  $t(229) = .480$ ,  $p = .633$ . For the RL environment with leader-member exchange controlled, feedback environment was significant,  $sr^2 = .064$ ,  $t(229) = -.339$ ,  $p = .008$ . At the location level, when feedback environment was controlled, leader-member exchange was statistically significant; HL,  $sr^2 = .194$ ,  $t(229) = 4.419$ ,  $p < .001$ , OL,  $sr^2 = .166$ ,  $t(229) = 6.568$ ,  $p < .001$ , and RL,  $sr^2 = .378$ ,  $t(229) = 6.684$ ,  $p < .001$ . For RQ4, employee's work locations did influence their perceptions of job satisfaction and the null hypothesis was rejected.

**Table 4***Job Satisfaction Regression Models*

Variable	N	R	R <sup>2</sup>	F	Sig.	b	t	Sig.	sr	sr <sup>2</sup>	shr. sr <sup>2</sup>
<b>Feedback Environment</b>											
Job Satisfaction (Total Sample)	232	.411	.169	46.731	<.001	.385	6.836	<.001			
Working from home (HL)	80	.205	.042	3.439	<b>.067</b>	.173	1.854	<b>.067</b>			
Employer Offices (OL)	80	.648	.420	56.536	<.001	.588	7.519	<.001			
Remote work arrangement (RL)	72	.198	.039	2.845	<b>.096</b>	.201	1.687	<b>.096</b>			
<b>Leader-member Exchange</b>											
Job Satisfaction (Total Sample)	232	.666	.443	182.916	<.001	.447	13.525	<.001			
Working from home (HL)	80	.481	.231	23.480	<.001	.313	4.846	<.001			
Employer Offices (OL)	80	.765	.585	110.146	<.001	.472	10.495	<.001			
Remote work arrangement (RL)	72	.594	.353	38.173	<.001	.506	6.178	<.001			
<b>Feedback Environment and Leader-member Exchange Combined</b>											
Job Satisfaction (Total Sample)	232	.670	.448	93.107	<.001						
Feedback Environment						-.097	-1.510	<b>.132</b>	-.074	.005	.163
Leader-member Exchange						.495	10.775	<.001	.529	.280	
Working from home (HL)	80	.486	.236	11.891	<.001						
Feedback Environment						-.068	-.681	<b>.498</b>	-.068	.005	.037
Leader-member Exchange						.341	4.419	<.001	.440	.194	
Employer Offices (OL)	80	.766	.587	54.645	<.001						
Feedback Environment						.056	.480	<b>.633</b>	.035	.001	.420
Leader-member Exchange						.441	6.568	<.001	.408	.166	
Remote work arrangement (RL)	72	.646	.417	24.647	<.001						
Feedback Environment						-.339	2.748	.008	-.253	.064	-.025
Leader-member Exchange						.693	6.684	<.001	.615	.378	

*Note*: The *sr*<sup>2</sup> column represents the variance in job satisfaction directly attributed to the feedback environment and the leader-member exchange relationship. The *shr. sr*<sup>2</sup> column represents the additional variance in job satisfaction attributed to the combination of the feedback environment and the leader-member exchange relationship. The sum of the three values represents the total variance in job satisfaction represented by the two predictor variables.

## Summary

Research Question 1, based on location means for the feedback environment scores, found that the location means were the same and supported the null hypothesis that no differences had been detected among them. Expectations that feedback environment scores would vary among the locations were not supported.

Research Question 2, based on the location means for leader-member exchange scores, found that the mean OL location scores were lower than the HL and RL location scores. While the effect was small, slightly less than 6%, it supported the alternative hypothesis that the means were different.

Research Question 3 involved examining predictions of work engagement based on feedback environment and leader-member exchange scores separately and combined. Across the total sample (all locations combined), feedback environment scores were significantly predictive of work engagement scores. For individual locations, feedback environment scores were predictive for OL and RL locations, but not for the HL location, and partially supported the alternative hypothesis. Leader-member exchange scores were significantly predictive of work engagement scores for the total sample and for each location. Feedback environment scores and leader-member exchange scores in combination were predictive of work engagement scores for the total sample and for each location. However, feedback environment was not significant as a predictor of work engagement in combination with leader-member exchange for HL and OL locations. Overall, both feedback environment and leader-member exchange were predictive of work engagement separately and combined. Additionally, regression effect sizes varied across locations with the highest effect sizes in the OL location followed by the RL location and lowest in the HL location. This pattern supports the alternate hypothesis that the individual locations led to different work engagement effect sizes.

The final research question, Research Question 4, examined feedback environment and leader-member exchange as predictors of job satisfaction. Similar to Research Question 3, the predictors were examined separately and in combination across the total (all locations) sample and for each location. Results for feedback environment as the sole predictor were significant for all locations sample and the OL location, but not for the HL and RL locations. Leader-member exchange was predictive of job satisfaction

for the total sample and HL, OL, and RL subset samples. In combination, feedback environment and leader-member exchange were predictive of RL job satisfaction.

Feedback environment when combined with leader-member exchange was not significant in predicting job satisfaction for the total sample, the HL, and the OL subset samples.

Overall, both feedback environment and leader-member exchange were predictive of job satisfaction separately and combined. Similar to the work engagement effect sizes, job satisfaction regression effect sizes varied across locations with the highest effect sizes in the OL location followed by the RL location and lowest in the HL location. This pattern supports the alternate hypothesis that the individual locations led to different job satisfaction effect sizes.

Results from the four research questions raised additional questions over the lack of feedback environment differences among work locations, the relative weakness of feedback environment effects when compared with leader-member exchange, and the overall weakness of feedback environment effects as reported by employees in each location. The strength of leader-member exchange, both as a higher-rated factor than feedback environment and as a predictor of work engagement and job satisfaction, further cloud the perception of the importance of feedback environment in day-to-day employee performance. Chapter 5 provides theoretically based explanations for these observations, prescriptions for employers on improving feedback environments in all locations, and suggestions for future research.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

COVID-19's diaspora of employees to work remotely from their homes expanded the number of employees working from remote locations by millions within a few months (Dey et al., 2020). Despite the suddenness and size of this dislocation, office workers supported by personal computer and internet connection technology continued to perform their jobs away from organizational offices (Bentley et al., 2021). That employees' homes, should suddenly have been successfully transformed to work locations, suggested an event worthy of study. This employee survey study was aimed at exploring foundational elements of employee self-regulation in the form of feedback-seeking (Ashford & Cummings, 1981, 1983, 1985; Inzlicht et al., 2021; Peng & Lin, 2016, Steelman et al., 2004a) and employee-supervisor relationships in the form of leader-member exchange (Dansereau et al., 1975; Graen & Uhl-Bien, 1995, Liden & Maslyn, 1998a, Varma et al., 2022) This study's objective was a comparative exploration of these well-researched concepts in the pandemic-induced "working from home" (HL) locations compared with employer office (OL) locations, and pre-pandemic remote work (RL) locations.

Results from the study indicated that employee evaluations of their feedback environments had nearly identical means representing positive evaluations for the three study locations. However, the HL and RL location standard deviations were similar, but much smaller than the OL location standard deviation. The difference suggested that

while the means were numerically similar, the underlying evaluations indicated a wider range of responses for the OL location. For feedback environment scores, boxplots indicated that the OL location scores exceeded both the highest and lowest HL and RL scores. Likewise for the leader-member exchange evaluations, means for HL and RL were similar. While the mean for OL was lower. Standard deviations followed the same pattern as reported for feedback environment ratings of similar for HL and RL but markedly different for OL. Again, there appeared to be a different pattern of responses between the OL location and both the HL and the RL locations.

When the feedback environment and leader-member exchange scores, separately and jointly, were applied as outcome predictors of the total sample employee's work engagement scores, different patterns were observed. As single predictors, both feedback environment and leader-member exchange were significant for the overall sample with the feedback environment score resulting in a small effect and the leader-member exchange score resulting in a medium effect. Correlations between feedback environment and work engagement were much lower than between leader-member exchange and work engagement appearing to indicate that employees saw feedback environment as less important to work engagement than leader-member exchange. These results suggested that, despite leader-member exchange being theoretically considered as a contributing factor to feedback environment (Ashford et al., 2016), overall, employees reported leader-member exchange as a stronger influence. Furthermore, feedback environment in the HL location was not significant, in the OL location resulted in a medium effect, and in the RL location a small effect. Comparatively, leader-member exchange as an outcome

predictor of work engagement was significant and more robust for all locations. These effect sizes further expand the overall observation of leader-member exchange having greater strength as a predictor of work engagement. Combining the two predictors resulted in small increases in work engagement effect sizes for the total sample and RL location. In both the HL and the OL locations, the feedback environment predictor was not significant.

A regression analysis with feedback environment and leader-member exchange scores as predictors of job satisfaction produced slightly different results than with the work engagement model. However, the lower correlation between feedback environment and job satisfaction and the higher correlation between leader-member exchange and job satisfaction were similar to the corresponding correlations with work engagement. Feedback environment as a single predictor of job satisfaction was significant only for the total sample and OL location. Leader-member exchange as a single outcome predictor was significant for the total sample and each location. When both predictors were combined, feedback environment was significant only for the RL location.

### **Interpretation of the Findings**

Feedback environments and leader-member exchange were found to be highly correlated in this study, a relationship reported by Steelman et al. (2004a) as part of feedback's social context and the social exchange relationships in leader-member exchange (Iverson et al. 1998a). However, leader-member exchange had larger mean values than feedback environment in the HL and RL environments and the spread among both scores was greatest in the OL location. Work engagement and job satisfaction as

outcomes had similar but not identical characteristics. For both work engagement and job satisfaction, feedback environment as the predictor had fewer and smaller effects than leader-member exchange.

Ashford et al. (2016) positioned leader-member exchange as a relational variable supporting feedback environment through reducing avoidance of negative performance information, compensating for employees' lower sense of empowerment, lowering perceived costs of feedback-seeking, and supporting direct feedback-seeking strategies. The instrumental relationship of leader-member exchange on feedback environment, that feedback-seeking is enhanced by strong leader-member exchange relationships, supports the relative similarity of their scores along with the higher leader-member exchange means. Peng and Lin (2016) favored a different explanation of the relationship, suggesting that leader-member exchange mediates feedback environment and other work outcomes. However, Peng and Lin also argue that the relationship may, in fact, be bi-directional such that employee feedback-seeking may lead to leader-member exchange relationships and positive leader-member exchange relationships were likely to foster employee feedback-seeking. This study's feedback instrument, Steelman et al. (2004b), contains seven facets describing the employee's supervisory feedback environment while the leader-member exchange instrument, Liden and Maslyn (1998b), contains four facets describing the employee's direct supervisor. As a possible explanation for the slightly higher LMX ratings, study participants, particularly those working remotely (HL and RL employees), may have found it easier to rate the personal characteristics of their supervisor than the characteristics of the supervisor's feedback environment.

Feedback contextual antecedents of job and organizational structure (Ashford et al., 2016) were diminished by the sudden switch from employer offices to working remotely as an organizational response to the COVID-19 pandemic (Varma et al., 2022). Remote work and remote workers required greater attention to individual supervisor-employee relationships to overcome the reduced availability of interpersonal interactions in remote settings. A study (Zang et al., 2018) concluded that employees facing externally initiated workplace disruptions were likely to increase their attention to leader-member exchange. Disruptions associated with job insecurity when organizational support was perceived to be high, as would be for COVID-19 where employees were relocated away from collective work locations such as employer offices, provide another explanation for higher leader-member exchange scores in HL and RL locations. Supervisors and managers likewise unexpectedly thrust into the novel HL and RL locations were likely to have increased their attention to their employees to assure acceptable performance levels in the remote environments.

The larger standard deviations for both feedback environment and leader-member exchange in the OL sample were noteworthy. A recent study for remote locations warns that leader-member exchange may suffer from remote employees having a sense of isolation, conflicts with family needs, restricted learning from colleagues, and unfulfilled socialization needs (Varma et al., 2022). No pandemic-era study reviewed for this paper considered any of these as causes of deficits in leader-member exchange in conventional office locations. Yet this diverse study sample reports the lowest leader-member exchange scores for conventional offices. Furthermore, recent feedback environment

research suggested negative outcomes from a lack of observational opportunities (missing opportunities to collect information based on coworkers' physical location and lack of visibility in remote office locations) among virtual team members (Handke et al., 2022).

In the current study, comparisons of the plots of both feedback environment and leader-member exchange scores by individual location show wider distributions which included similar ranges of higher scores and a greater range of lower scores for the OL location than the HL and RL locations. OL employees clearly expressed wider variations in their feedback environment and leader-member exchange ratings than HL and RL employees. Parker and Collins (2010) identified employee person-environment fit behaviors, feedback-seeking for example, aimed at achieving better alignment between the employee and the organization, and associated with job and organizational changes. An interpretation of the lower feedback environment and leader-member exchange observations was that workers remaining in employer offices during the pandemic had lower feedback needs and depended less on interpersonal relationships with their supervisors when supported locally by supervisors and coworkers. Consequently, for some OL employees, both feedback environment and leader-member exchange were less important and led to more scores at the lower end of the response range. Considering that OL employees continued working in much the same context as in pre-pandemic times, a familiar environment, the importance of leader-member exchange would be less (Graen & Uhl-Bien, 1995) and the need for feedback environment performance information lower (Anseel et al., 2013) than their remote-working colleagues.

Outcome measures, work engagement and job satisfaction, produced similar but not identical results. For both, feedback environment as the sole predictor had smaller effects than leader-member exchange. Feedback environment as a sole predictor for both work engagement and job satisfaction failed to achieve significance in the HL location and also failed to achieve significance as a job satisfaction predictor in the RL location. This study's modest correlations of work engagement and job satisfaction with feedback environment, reported in Table 1, were an order of magnitude less than leader-member exchange scores. Leader-member exchange scores were significant across all locations and strongly correlated with both work engagement and job satisfaction.

Ashford et al. (2016) positioned leader-member exchange as an antecedent to feedback environment while Varma et al, (2022) reported leader-member exchange as the primary relational variable between employees and supervisors in remote work settings. In this study, employees' leader-member exchange scores rather than feedback environment scores appeared as significant predictors of both work engagement and job satisfaction. Peng and Lin (2016) provided support for an observation that leader-member exchange can act as a mediator of feedback environment in workplace outcomes. In this study, results from instruments measuring feedback environment (The Feedback Environmental Scale) and leader-member exchange (Multidimensional Measure of Leader-Member Exchange) were strongly correlated and both focused on supervisor characteristics. However, The Feedback Environmental Scale (Steelman et al., 2004a) was specifically designed to measure supervisory feedback contextual factors while the Multidimensional Measure of Leader-Member Exchange (Liden & Maslyn, 1998a) was

specifically designed to measure leader-member relational factors. This study's results indicate that when feedback environment and leader-member exchange scales were used as predictors of work engagement and job satisfaction, leader-member exchange accounted for more variance in the target variable than feedback environment.

These results were consistent with the low total sample correlation between feedback environment and work engagement and job satisfaction. Low correlations between feedback environment and both work engagement, and job satisfaction signaled that feedback environment was an unlikely predictor of work engagement for HL and of job satisfaction for both HL and RL locations. Feedback environment fared better as the work engagement predictor for the OL and RL locations. As the predictor of job satisfaction, it only reached significance for the OL location. Contrastingly, leader-member exchange was significant as the sole predictor of work engagement and job satisfaction for all locations. These results offer additional support for the lesser importance of feedback environment outside employer offices (OL) from employee ratings. Employee ratings of leader-member exchange appear to have much more closely followed employee work engagement and job satisfaction ratings in all locations despite feedback environment and leader-member exchange being highly correlated for the total sample. These observations appear to support an interpretation of greater importance of leader-member exchange across all locations.

When feedback environment and leader-member exchange were used jointly as predictors of work engagement and job satisfaction, feedback environment more often failed to reach significance. Among the two-predictor models, feedback environment was

significant in only the total sample and RL work engagement models. These results further supported the lesser importance of feedback environment in predictive results.

Summarizing these findings, this study reported a strong correlation between feedback environment and leader-member exchange from employee ratings with similar mean scores on their respective rating instruments. Differences between feedback environment and leader-member exchange scores, while small, were almost identical for the OL location but wider for both the HL and RL locations. Explanations of the remote location differences include the difficulty in rating FES in the remote environments, the attention to supervisory relationships by remote employees, and the corresponding supervisory attention to remote employees by their supervisors. The wider distribution of feedback environment and leader-member exchange scores in the OL location than in either of the remote locations was attributed to availability of support from supervisors and coworkers and the lower need and possibly lower attention to both feedback environment and leader-member exchange based on OL's greater environmental familiarity and lowered feedback and leader-member exchange needs. When used as the sole predictor of work engagement and job satisfaction, feedback environment was significant for the total sample but failed to reach significance for both outcomes HL locations and failed to reach significance for the job satisfaction RL location indicating a lack of association with outcomes away from employer offices compared to leader-member exchange. As a sole predictor, leader-member exchange was significant for the total sample and all locations indicating significant association with work outcomes in all work contexts. Feedback environment, when paired with leader-member exchange as

joint predictors of work engagement and job satisfaction was significant only for the work engagement total sample and both work engagement and job satisfaction RL locations indicating a weak association of feedback environment with work outcomes. Leader-member exchange paired with feedback environment as a predictor of work engagement and job satisfaction was significant for all locations indicating employees associated it with work outcomes. Although the variance in outcomes shared by both predictors was substantial in all locations, the sharing further indicated the primacy of leader-member exchange as an outcome predictor.

This quantitative study was designed to explore employee perceptions of two well-researched work-related variables, feedback environment and leader-member exchange, in employer office (OL) and remote work locations (HL and RL) during the COVID-19 pandemic. Along with employee perception measures, the variables were also examined as predictors of work engagement and job satisfaction. Study results indicated that employees had similar ratings of feedback environment and leader-member exchange across all locations with lower ratings for the OL location than both the HL and RL locations. As predictors of work outcomes, leader-member exchange proved to be the most reliable outcome predictor. Feedback environment failed to reach statistical significance as an outcome predictor in most location models. Most of the feedback environment predictive effect appears to have been shared with leader-member exchange.

### **Limitations of the Study**

Participants in this study were limited to full-time employees. Both feedback environment and leader-member exchange depend upon dyadic relationships between

employees and their supervisors. For this exploratory study it was decided to collect observations from only one side of the relationship, but this limited the study and precluded measuring the relationship itself.

The nature of the positive relationship between feedback environment and leader-member exchange identified by this study was not determined. Feedback environment was measured using The Feedback Environmental Scale, a seven-factor instrument. Leader-member exchange was measured using the Multidimensional Measure of Leader-Member Exchange, a four-factor instrument. Summative scores from both instruments were employed in the analyses for this study. In planning this study, the sample size required to support analysis at the factor level was considered prohibitive for an exploratory study. Prior research at the factor level has proposed that leader-member exchange influences feedback environment among some studies and that feedback environment influences leader-member exchange in other studies. This study did not seek to determine if feedback environment and leader-member exchange act as mediators, or moderators of each other. Prior research suggests that, depending on the context, both interactions may occur.

Prior research in feedback environment has described feedback from the work itself along with feedback from coworkers as substitutes for supervisor to employee feedback. These sources were purposely left unexplored for this exploratory study. While this reduced the complexity of the study, it also precluded consideration of two common sources of feedback.

## **Recommendations**

This study found similarities and differences in employee perceptions of feedback environments and leader-member exchange among the three locations, work from home (HL), pre-existing remote work locations (RL), and employer office locations (OL). A future study with larger sample sizes, providing adequate power to support examining the component factors of feedback environment and leader-member exchange, of employees, their immediate supervisors, and coworkers in employer offices and long-term remote work arrangements is recommended. A second recommendation is a study to explore the nature of effective feedback environment in remote work arrangements. Ashford et al. (2016) list indicators of work engagement (task, contextual, and creative performance) learning, and job satisfaction as feedback environment outcomes. However, this study's results showed the lowest correlations between work engagement and job satisfaction outcomes with feedback environment in remote locations. Griffith et al. (2018) suggest that work engagement in flexible (remote) work environments depends upon feedback from the work itself, technological support, knowledge to work independently, supervisory electronic communication, and experience in alternative workplaces. Future studies with adequate power to examine feedback environment factors along with multi-factor models of work engagement and job satisfaction in remote work environments with known levels of feedback from the work, technological support, knowledge of working independently, supervisory communication characteristics, and organizational experience with remote work arrangements might lead to better understanding of feedback in remote environments.

### **Implications**

Interestingly, for this study, social change has been generated through the successful remote workplace accommodations, somewhat hastily, put into place to protect employees and support organizations in continuing their operation during COVID-19 (Dey et al., 2020). Remaining is understanding, some might say, “picking apart,” the experiences of participants in this natural experiment. This study explored employee experiences with two basic workplace constructs, feedback environment and leader-member exchange. Although exploratory, the study did bring attention to employee perceptions of feedback as being largely positive and to leader-member exchange as being even more positive among remotely located employees when compared with employees working in employer offices. This implied that employees recognized value in both constructs as important to work in remote locations and offered some guidance to employers in meeting the needs of employees assigned away from organizational locations. The study also affirmed, through employees reported perceptions, the influence of leader-member exchange on work outcomes of work engagement and job satisfaction in all locations. This relational construct was characterized as supporting effective leadership as well as establishing productive supervisor-employee relationships (Graen & Uhl-Bien, 1995), and appears in both feedback and leadership literatures.

The practical implications of this study were the positive reports from employees on working remotely. This study suggested that across a varied sample, employees were able to function away from the organizational offices, often individually in their homes,

using existing computing and communication technologies. For employers these same results suggested that remote work arrangements, rather than being restricted, can be successfully instituted for many jobs. Employee ratings of their work engagement and job satisfaction outcomes were strongly positive and higher for remote employees than those remaining in employer offices.

### **Conclusion**

This paper attempted to explore employee perceptions of two basic workplace constructs, feedback environment and leader-member exchange, and their relationship with an additional two workplace outcomes, work engagement and job satisfaction, during the COVID-19 pandemic. Employees reported positive scores for both their feedback environments and leader-member exchange indicating that participating employees' perceptions were favorable toward both constructs. Leader-member exchange also appeared to be a moderate to strong predictor of work engagement and job satisfaction in all work locations. The feedback environment, however, did not appear important as a predictor of either work outcome. As exploratory study findings, these results confirmed the viability of remote work arrangements, and suggested that feedback environments operate as more complex constructs requiring further study.

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## Appendix: Survey Instrument Permissions



### Feedback Environment Scale

**PsycTESTS Citation:**

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). Feedback Environment Scale [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t05865-000>

**Instrument Type:**

Rating Scale

**Test Format:**

Items on the Feedback Environment Scale are measured on a 7-point Likert-type scale ranging from strongly disagree to strongly agree.

**Source:**

Supplied by author.

**Original Publication:**

Steelman, Lisa A., Levy, Paul E., & Snell, Andrea F. (2004). The Feedback Environment Scale: Construct Definition, Measurement, and Validation. *Educational and Psychological Measurement*, Vol 64(1), 165-184. doi: <https://dx.doi.org/10.1177/0013164403258440>

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**Multidimensional Measure of  
Leader-Member Exchange**

**PsycTESTS Citation:**

Liden, R. C., & Maslyn, J. M. (1998). Multidimensional Measure of Leader-Member Exchange [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t04899-000>

**Instrument Type:**

Test

**Test Format:**

The LMX-MDM includes 11 items and a 7-point response scale ranging from 1 (strongly disagree) to 7 (strongly agree).

**Source:**

Supplied by author.

**Original Publication:**

Liden, Robert C., & Maslyn, John M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, Vol 24(1), 43-72. doi: [https://dx.doi.org/10.1016/S0149-2063\(99\)80053-1](https://dx.doi.org/10.1016/S0149-2063(99)80053-1)

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**Utrecht Work  
Engagement  
Scale-9**

**PsycTESTS Citation:**

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). Utrecht Work Engagement Scale-9 [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t05561-000>

**Instrument Type:**  
Rating Scale

**Test Format:**

All items are scored on a 7-point frequency rating scale ranging from 0 (never) to 6 (always/every day).

**Source:**

Schaufeli, Wilmar B., Bakker, Arnold B., & Salanova, Marisa. (2006). The Measurement of Work Engagement With a Short Questionnaire: A Cross-National Study. *Educational and Psychological Measurement*, Vol 66(4), 701-716. doi: <https://dx.doi.org/10.1177/0013164405282471>, © 2006 by SAGE Publications. Reproduced by Permission of SAGE Publications.

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### **Affectivity, Burnout, and Absenteeism Scales**

Note: Test name created by PsycTESTS

**PsycTESTS Citation:**

Iverson, R. D., Olekalns, M., & Erwin, P. J. (1998). Affectivity, Burnout, and Absenteeism Scales [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t09795-000>

**Instrument Type:**  
Rating Scale

**Test Format:**

A 5-point Likert-type scale format (5 = Strongly Agree; 1 = Strongly Disagree) was used to measure employees' perception to each item, except for the variable of absenteeism. The measure of absenteeism used was the frequency of absences during a period of 6 months collected from each respondent's personnel records.

**Source:**

Iverson, Roderick D., Olekalns, Mara, & Erwin, Peter J. (1998). Affectivity, organizational stressors, and absenteeism: A causal model of burnout and its consequences. *Journal of Vocational Behavior*, Vol 52(1), 1-23. doi: <https://dx.doi.org/10.1006/jvbe.1996.1556>, © 1998 by Elsevier. Reproduced by Permission of Elsevier.

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