Inclusive Leadership Questionnaire: The Design and Validation of a Theory-based Instrument

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ABSTRACT

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The increasing diversity, globalization and aging of the U.S. workforce have put pressure on organizations to better understand and manage diversity (Perry & Li, 2019). While there are various ways in which companies can "manage" this diversity, increasing attention is being paid to the role that leaders play (Avery & McKay, 2010). More specifically, a number of authors have begun to discuss the potential benefits of inclusive leadership in managing increasingly diverse employees (Randel et al., 2018). Despite discussions about the potential benefits of inclusive leadership, there is relatively little consensus about what inclusive leadership is and how best to measure it (Randel, Dean, Ehrhart, Chung, & Shore, 2016). The purpose of current research is to highlight the limitations of previous measures and to begin to develop a more theoretically grounded and empirically valid measure of inclusive leadership. Based on a review of inclusion and inclusive leadership literature, a measure of inclusive leadership was designed, evaluated by six subject matter experts, and administered to a large MTurk sample (N = 529). The current research found that inclusive leadership is a multi-dimensional construct that includes leadership behaviors of treating all work unit members with fairness, equality, and respect; encouraging integration of and synergy among all work unit members; and translating (i.e., compliance and implementation) organizational diversity and inclusion related policies and programs that support inclusion and prevent exclusion into explicit diversity and inclusion practices in the work unit. The current research established a content, construct, convergent, discriminant, and criterion valid and reliable measure of inclusive leadership, the Inclusive

Leadership Questionnaire (ILQ), that can be used to help academics better understand what inclusive leadership is, how best to measure it, and assess its impact on work-related processes and outcomes. Additionally, practitioners can use this measure to assess the strengths and development opportunities of leaders; develop inclusive leadership capabilities; facilitate the incorporation of behavior based inclusive leadership criteria into the talent management system; and continuously make progress toward the goal of creating an inclusive workplace and gaining long-term organization health and growth.

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DEDICATION

To my beloved mother and father

For nursing me with enduring love and faith

CHAPTER 1: INTRODUCTION

The demographics of the U.S. labor force have shifted over the last several decades with percentages of women, racial minorities, foreign-born persons, and millennials steadily increasing (Buckley & Bachman, 2017). The U.S. workforce is becoming more diverse in terms of gender, ethnicity, generation, culture, religion, sexual preferences and identification, and perhaps by other characteristics we have not even identified yet (Buckley & Bachman, 2017). The increasing diversity, globalization and aging of the U.S. workforce have put pressure on organizations to better understand and manage diversity (Perry & Li, 2019a).

While diversity has potentially negative effects on team processes (e.g., poor communication and cooperation, increased conflict) as well as team performance (e.g., lowered financial indicators and team effectiveness), if leveraged and managed effectively it also has tremendous upside potential for an organization to gain competitive advantage in a globalized economy (Jackson, Joshi, & Erhardt, 2003). Companies with the best reputations for managing diversity will win the competition for the best personnel resources and reduce the costs of employee turnover and absenteeism at the same time (Cox & Blake, 1991; Wright, Ferris, Hiller, & Kroll, 1995). Moreover, the cultural insights that members with roots in other countries bring will benefit companies in terms of understanding consumer behavior as well as expanding global markets (Cox & Blake, 1991). Lastly, diverse perspectives and heterogeneity in groups can potentially improve the level of creativity, produce better decisions, and result in superior problem solving through critical analysis of alternatives and lower probability of groupthink (Bodla, Tang, Jiang, & Tian, 2018; Cox & Blake, 1991; van Knippenberg, De Dreu, & Homan, 2004). Thus, organizations should make efforts to maximize the benefits and minimize the potential drawbacks of diversity.

While there are various ways in which companies can "manage" their diversity, increasing attention is being paid to the role that leaders play (Avery & McKay, 2010). General leadership research supports the critical impact that leaders have on influencing organizational outcomes directly (e.g., initiating and implementing organizational policies and programs) and indirectly (e.g., shaping an organization's culture) (Kaiser, Hogan, & Craig, 2008). Top management can be champions for diversity; ensuring that human, financial, and technical resources are provided and that commitment to diversity is featured in the corporate strategy and human resources systems (Arthur & Boyles, 2007; Cox & Blake, 1991; Ellis & Sonnenfeld, 1994). Key line managers are also crucial for overseeing diversity task forces and implementing diversity policies and programs company-wide (Cox & Blake, 1991; Kulik, 2014). More specifically, a number of researchers have begun to discuss the potential benefits of inclusive leadership in managing increasingly diverse employees (Randel et al., 2018). There is mounting evidence that inclusive leaders can positively impact both individual employee outcomes (e.g., intention to stay, job performance, helping behavior, innovative behavior) as well as work unit outcomes (e.g., work unit turnover, work unit performance) (e.g., Choi, Tran, & Kang, 2017; Choi, Tran, & Park, 2015; Javed, Khan, & Quratulain, 2018; Javed, Naqvi, Khan, Arjoon, & Tayyeb, 2019; Nembhard & Edmondson, 2006; Nishii & Mayer, 2009).

Despite discussions in the popular press and academic articles about the potential benefits of inclusive leadership, there is relatively little consensus about what inclusive leadership is and how best to measure it (Randel et al., 2016). Early conceptualizations of inclusive leadership focused on modeling openness and providing accessibility in interactions with followers (Carmeli, Reiter-Palmon, & Ziv, 2010; Nembhard & Edmondson, 2006). Recent scholarship has conceptualized inclusive leadership as a set of positive leader behaviors that facilitate group

members perceiving their belongingness while maintaining their uniqueness in the work group (e.g., Randel et al., 2018; Shore et al., 2011). Unlike other leadership styles, inclusive leaders directly address status and power differences among the members of their work units (Nembhard & Edmondson, 2006; Randel et al., 2018). Over the last decade, measures of inclusive leadership have proliferated (e.g., Ashikali, 2019; Carmeli et al., 2010; Fang, Chen, Wang, & Chen, 2019; Jin, Lee, & Lee, 2017; Nembhard & Edmondson, 2006; Panicker, Agrawal, & Khandelwal, 2018; Zheng, Diaz, Zheng, & Tang, 2017). However, a close review of these measures reveals problematic items and measures that do not fully capture the scope of the construct identified in the inclusive leadership literature. Few authors provide evidence of different forms of validity and reliability associated with their inclusive leadership measures. Moreover, existing measures do not acknowledge potential differences in inclusive leadership at different levels in the organization.

The purpose of the current research is to conceptualize a theory-based, multidimensional construct of inclusive leadership and highlight the limitations of previous measures in order to develop a more theoretically grounded and empirically based measure of inclusive leadership. Once a content, construct, convergent, discriminant, and criterion valid measure has been established, it can be used to help academics better understand what inclusive leadership is, and the impact it has on work-related processes and outcomes at both the individual and work unit levels. Ultimately, this measure could be used to explore the impact of inclusive leadership in different workplace contexts, and help practitioners identify and develop inclusive leadership behaviors that benefit organizations' diversity management efforts.

This dissertation contains five chapters. Chapter 2, critically reviews the inclusive leadership literature as well as existing measures of inclusive leadership. Based on previous

research, a theory-based, multidimensional conceptualization of inclusive leadership is developed. Chapter 3 introduces the methodology used for designing and validating the Inclusive Leadership Questionnaire, including item generation, content validation, and establishing its construct, convergent, discriminant, concurrent criterion, and incremental validities and reliability. Chapter 4 includes the results of content validity, construct validity, convergent and discriminant validities, concurrent criterion validity, incremental validity, and reliability analyses of the Inclusive Leadership Questionnaire. Chapter 5 discusses research results, limitations and implications of this research for future research and practice.

CHAPTER 2: LITERATURE REVIEW

Definitions of Inclusion in the Workplace

Diversity typically refers to the demographic differences among work unit members in terms of both observable (e.g., gender, race, age) and non-observable (e.g., culture, cognition, education) attributes. By contrast, inclusion refers to employee perceptions of whether their unique contributions and full participation are appreciated and encouraged (Mor Barak, 2015). While diversity management primarily focuses on bringing marginalized group members into the workplace, inclusion focuses on providing equal opportunity for both socially marginalized and non-marginalized group members to participate and contribute (Jansen, Otten, & van der Zee, 2015; Shore, Cleveland, & Sanchez, 2018). In an inclusive workplace, both marginalized and non-marginalized group members "are fairly treated, valued for who they are, and included in core decision making" (Nishii, 2013, p. 1754). Group members also have a sense of being part of the organizational system and have access to both formal and informal information exchange and decision making (Mor Barak, 2015).

Based on Optimal Distinctiveness Theory (ODT), that suggests that individuals seek to balance the need to be similar to others with the need to be their unique self (Brewer, 1991), Shore et al. (2011) defined inclusion as "the degree to which individuals experience treatment from the group that satisfies their need for belongingness and uniqueness" (p. 1265). Belongingness is the need to develop and maintain robust and stable interpersonal relationships in the work unit, whereas uniqueness is the need to preserve a distinctive sense of self in the work unit (Shore et al., 2011). In a similar but slightly different vein, Jansen, Otten, van der Zee, and Jans (2014) conceptualized inclusion as a two-dimensional construct that focuses on satisfying group members' needs for belonging, similar to ODT, and authenticity, rather than

uniqueness, based on Self Determination Theory (SDT). SDT argues that group members desire to feel connected to others (i.e., to belong) as well as to behave in accordance with one's integrated sense of self (Deci & Ryan, 2000). Belongingness means sharing a group membership and having group affection, whereas authenticity means that the group allows and encourages individual group members to feel and act in accordance with their true self (Jansen et al., 2014).

Definitions of Inclusive Leadership in the Workplace

The research area of inclusive leadership is relatively young and there is a lack of consensus about what inclusive leadership is (Randel et al., 2016). Nembhard and Edmondson (2006) defined leader inclusiveness as, "words and deeds by a leader or leaders that indicate an invitation and appreciation for others' contributions" and "attempts by leaders to include others in discussions and decisions in which their voices and perspectives might otherwise be absent" (p. 947). Carmeli et al. (2010) conceptualized inclusive leadership as, "leaders who exhibit openness, accessibility, and availability in their interactions with followers" (p. 250). More recently, based on Shore et al.'s (2011) definition of inclusion, Randel et al. (2018) conceptualized inclusive leadership as "a set of positive leader behaviors that facilitate group members perceiving belongingness in the work group while maintaining their uniqueness within the group as they fully contribute to group processes and outcomes" (p. 190). Specifically, inclusive leadership behaviors that satisfy group members' need for belongingness include supporting group members, ensuring justice and equity, and sharing decision-making (Randel et al., 2018). Inclusive leadership behaviors that facilitate group members' need for uniqueness include encouraging diverse contributions and helping group members fully contribute (Randel et al., 2018). Additionally, Shore et al.'s (2018) conceptual model of organizational inclusion suggests that inclusive leaders focus simultaneously on both the enhancement of inclusion as

well as the prevention of exclusion. Inclusive leaders prevent exclusion through a commitment to compliance with laws and management of micro inequalities and subtle discrimination, which provides a foundation for an inclusive organization (Shore et al., 2018). Most recently, Ashikali (2019) defined inclusive leadership as a set of behaviors that on the one hand, seek to stimulate team members to adopt learning behaviors in regard to team diversity and to utilize team diversity in order to cognitively satisfy work unit members' need for uniqueness, and on the other hand facilitate the participation of all team members in order to affectively facilitate work unit members' feeling of belongingness.

Inclusive leadership is a distinctive leadership style that is particularly relevant in teams (Hirak, Peng, Carmeli, & Schaubroeck, 2012; Mitchell et al., 2015; Nishii & Mayer, 2009), and focuses on the relationships between the leader and all work unit members (both marginalized and non-marginalized) (Carmeli et al., 2010; Nishii & Mayer, 2009). Inclusive leaders help diverse teams overcome the inhibiting effects of status and power differences between team members and facilitate collaboration among team members (Nembhard & Edmondson, 2006; Randel et al., 2018). Moreover, inclusive leaders respond to their work unit members' needs for belongingness and uniqueness (Randel et al., 2018).

Distinctions between Inclusive Leadership and Other Leadership Styles

Inclusive leadership is a distinctive leadership style that is different from other leadership styles even those that are conceptually related (e.g., transformational leadership, participative leadership, servant leadership, authentic leadership, leader-member exchange) (Randel et al., 2018).

Transformational Leadership

Transformational leadership aims to transform followers in order to obtain group objectives (Bass, 1990), whereas inclusive leadership aims to include followers in order to obtain group objectives. Transformational leadership incorporates four factors: 1) charisma (i.e., provides vision and mission), 2) inspirational motivation (i.e., communicates high expectations), 3) intellectual stimulation (i.e., promotes intelligence and problem solving), and 4) individual consideration (i.e., coaches each individual employee) (Bass, 1990). Transformational leadership is focused on motivating and developing employees by challenging their assumptions and establishing difficult goals, whereas inclusive leadership is focused on valuing employees' unique contributions and helping group members feel that they belong without changing their key identities (Randel et al., 2018).

Participative Leadership

Participative leaders consult with followers, solicit their suggestions, and take these suggestions into consideration seriously before making a decision (House & Mitchell, 1975). Participative leadership is effective when the task is ambiguous, because participation gives greater clarity to how certain paths lead to certain goals, and helps followers learn what leads to what (House & Mitchell, 1975). Participative leadership is also effective when followers are autonomous and have a strong need for control, given that these kinds of followers respond favorably to being involved in decision making and in the structuring of work (House & Mitchell, 1975). Soliciting suggestions from work unit members is consistent with the integration of diverse perspectives identified as a part of inclusive leadership. However, inclusive leaders do more than encouraging members to participate. Inclusive leaders, but not participative leaders, also provide equal opportunities and fair treatment to all work unit members and address work

unit members' needs to feel connected to others (belongingness), to preserve a distinctive sense of self (uniqueness), and to behave in accordance with one's integrated sense of self (authenticity).

Servant Leadership

Servant leaders show sensitivity to others' concerns, support and empower others, help followers grow and succeed, establish ethical and genuine relationships, and create value for the community (Liden, Wayne, Zhao, & Henderson, 2008). Servant leaders focus on creating success for their followers by putting their followers first and supporting their followers. Inclusive leadership is also focused on supportive behaviors but importantly these leaders are equally supportive of all followers in the work unit. Additionally, servant leaders do not necessarily help individuals feel a sense of belongingness or support their need for a sense of uniqueness (Randel et al., 2018). Instead servant leaders, specifically, focus on developing and providing opportunities for their members, and creating success more generally for their members, organization, and other stakeholders such as customers and the community (Randel et al., 2018). Lastly, servant leaders look outside of their workgroup and serve the broader community (Greenleaf, 1970), whereas inclusive leaders focus more on the members of their workgroup.

Authentic Leadership

There are four dimensions of authentic leadership: 1) self-awareness which refers to demonstrating an understanding of how one make sense of the world as well as understanding one's strengths and weaknesses, 2) relational transparency which refers to presenting one's authentic self to others, 3) balanced processing which refers to objectively analyzing all relevant data before coming to a decision, and 4) internalized moral perspective which refers to an

internalized form of self-regulation guided by internal moral standards and values (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Authentic leadership focuses on the actions and behaviors that reflect the leader's authentic beliefs and self, whereas inclusive leadership focuses on the kinds of leadership actions and behaviors that encourage followers to feel comfortable being their authentic selves (Randel et al., 2018). Authentic leaders behave authentically whereas inclusive leaders make sure their group members can act authentically in their workgroup.

Leader-Member Exchange

Leader-member exchange theory suggests that "effective leadership processes occur when leaders and followers are able to develop mature leadership relationships (partnerships) and thus gain access to the many benefits these relationships bring" (Graen & Uhl-Bien, 1995, p.225). Leader-member exchange theory focuses on the unique working relationships (low quality vs. high quality) that leaders create with individual followers. The relationship develops progressively over time in three phases: the stranger phase, the acquaintance phase, and the mature partnership phase. Leader-member exchange mature partnerships occur when the interaction between leaders and followers is characterized by mutual trust, respect, and commitment (Graen & Uhl-Bien, 1995). Leader-member exchange focuses on the exchange of resources and support between the leader and each individual team member, and each relationship varies in quality (high or low). By contrast, inclusive leadership aims to include all followers in various work related aspects within a work unit (e.g., inclusive leaders attempt to form high quality relationships with all team members). Inclusive leaders go beyond individual relationships to create an inclusive work unit where all team members feel they belong and their uniqueness is valued by the leader as well as other team members (Randel et al., 2018).

To sum up, inclusive leadership is a distinct leadership style that is particularly relevant in teams (Hirak et al, 2012; Nishii & Mayer, 2009; Mitchell et al., 2015). It not only focuses on relationships between the leader and each work unit member (Carmeli et al., 2010, Nishii & Mayer, 2009), but also pays attention to how decisions are made, problems are solved, and tasks are accomplished in teams. The positive benefits of inclusive leadership are a function of these leaders directly addressing the status and power differences in their work units (Nembhard & Edmondson, 2006) and satisfying work unit members' fundamental needs for belongingness and uniqueness (Randel et al., 2018).

Conceptualizing Inclusive Leadership as a Multi-dimensional Construct

An in depth review of the inclusive leadership research and theory suggests that there are four related but distinct dimensions of inclusive leadership: 1) providing equal opportunity and fair treatment to all work unit members, 2) encouraging the integration of and synergy among all work unit members, 3) directly addressing all work unit members' fundamental needs for uniqueness, authenticity, and belongingness, and 4) implementing organizational diversity and inclusion related policies and programs in the work unit. The bases for these dimensions are reviewed below.

The first dimension of inclusive leadership identified in the literature is providing equal opportunity and fair treatment to all work unit members. This dimension is based on the *fairness and discrimination perspective* in diversity research that focuses on equal employment opportunity practices, fair treatment and the absence of discrimination in the employment process, and the elimination of social exclusion (Dwertmann, Nishii, & van Knippenberg, 2016). Shore et al.'s (2018) conceptual model of inclusive organizations suggests that leaders need to focus simultaneously on both the enhancement of inclusion (management promotion orientation)

as well as the prevention of exclusion (management prevention orientation) so that organizations can increase inclusion for their members. Different leadership practices and behaviors are required for each. To enhance inclusion, leaders must provide both members of socially marginalized group and non-marginalized group with equal opportunities to participate and contribute (Shore et al., 2018), as well as access to both formal and informal information exchange as part of the organizational system (Mor Barak, 2015). To prevent exclusion, leaders must confront both direct and subtle forms of discrimination that occur in their teams (Shore et al., 2018), as well as engage in the fair treatment of both marginalized and non-marginalized group members to ensure justice and equity (Nishii, 2013; Randel et al., 2018). This first dimension of inclusive leadership, providing equal opportunity and fair treatment to all work unit members, can be found in most of the existing measures of inclusive leadership (e.g., "I am treated fairly and with dignity"). The current research suggests that to enhance inclusion and prevent exclusion, inclusive leaders 1) provide equal opportunity for all work unit members, 2) provide fair treatment to all work unit members, and 3) manage micro inequalities and subtle discrimination.

The second dimension of inclusive leadership identified in the literature is encouraging the integration of and synergy among all work unit members. This dimension is developed based on the *integration and synergy perspective* in diversity research that focuses on realizing the potential performance benefits of diversity (Dwertmann et al., 2016; Nishii, 2013). The integration of diverse employees means an openness to diverse cultural identities from both dominant and non-dominant groups (Nishii, 2013). Specifically, inclusive leaders model openness, accessibility, and availability in their interactions with followers (Carmeli et al., 2010; Hirak et al., 2012; Mitchell et al., 2015), as well as invite and appreciate others' points of view

and contributions regardless of status or power differences (Nembhard & Edmondson, 2006). Inclusive leaders actively seek out and integrate diverse employee perspectives (Nishii, 2013). Inclusive workplaces value pluralism, respect and integrate all cultural perspectives represented by employees (Mor Barak & Daya, 2014).

Synergy refers to realizing the performance benefits of diversity (Dwertmann et al., 2016). Diverse groups have the potential to outperform homogeneous groups in complex decision making and innovation through exchanging and integrating diverse information and perspectives to arrive at synergistic team outcomes (Dwertmann et al., 2016). Simply convening heterogeneous individuals together is insufficient for the emergence of synergistic outcomes, and the potential synergistic benefits of diversity only occur when group members are encouraged to challenge each other's perspective, debate multiple possible solutions, and learn from each other (Dwertmann et al., 2016). In order to leverage the benefits of diverse teams, most scholars agree that all group members should be included in core decision making (e.g., Nembhard & Edmondson, 2006; Nishii, 2013; Mor Barak, 2015).

The most frequently cited inclusive leadership measures, developed by Carmeli et al. (2010) and Nembhard and Edmondson (2006), reflect some leadership behaviors related to encouraging integration (e.g., "Physicians ask for the input of team members that belong to other professional groups", "The manager is open to hearing new ideas"), but do not include items related to creating synergy. The current research argues that inclusive leaders foster both integration and synergy by: 1) facilitating open communication, 2) seeking diverse contributions, 3) integrating different perspectives, 4) implementing shared decision-making and problem-solving processes, 5) welcoming constructive debates and collaboration, and 6) encouraging mutual learning among all work unit members regardless of their status or power. Specifically, 1

to 3 are leadership behaviors fostering integration, while 4 to 6 are leadership behaviors that contribute to synergy.

The third dimension of inclusive leadership identified in the literature is satisfying work unit members' fundamental needs for belongingness, uniqueness and authenticity. This dimension is developed based on Shore et al.'s (2011) and Jansen et al.'s (2014) conceptualizations of inclusion at the work unit members' needs level. In addition to achieving synergistic outcomes at the work unit level, inclusion also happens at the individual needs level. ODT (Brewer, 1991) argues that individuals in groups seek to balance the need for validation and similarity to others with the need for uniqueness and individuation. Consistent with this, Shore et al. (2011) defined inclusion as "the degree to which individuals experience treatment from the group that satisfies their need for belongingness and uniqueness" (p. 1265). Belongingness is the need to develop and maintain robust and stable interpersonal relationships, whereas uniqueness is the need to preserve a distinctive sense of self (Randel et al., 2018). Similarly, Randel et al. (2018) conceptualized inclusive leadership as a set of positive leader behaviors that satisfy group members' needs for belongingness and uniqueness. In a slight departure from Shore et al. (2011), Jansen et al. (2014) conceptualized inclusion as a two-dimensional concept including perceptions of belonging and, based on SDT, authenticity, rather than uniqueness (Deci & Ryan, 2000). While Jansen et al. (2014) conceive of belongingness in terms similar to that of Shore and Randel and colleagues, they suggest that a need for autonomy involves the desire to behave in accordance with one's integrated sense of self (e.g., what am I allowed to do, who am I allowed to be). As a result, these authors focus on needs for authenticity rather than uniqueness. Unlike valuing uniqueness, valuing authenticity implies that group members can be unique or similar to each other (Jansen et al., 2014). Thus, the current research

argues that inclusive leaders 1) value individual differences (uniqueness), 2) make it safe for members to express their authentic selves (authenticity), and 3) create a cohesive work unit where members feel like they belong (belongingness). To this point, there are no empirical measures that assess whether inclusive leadership addresses employees' needs for uniqueness, authenticity, and belongingness.

The fourth dimension of inclusive leadership identified in the literature is implementing organizational diversity and inclusion related policies and programs in the work unit. This dimension is developed based on Kulik's (2014) conceptualization of organizational diversity management systems using Arthur and Boyles's (2007) typology of levels. Diversity programs are set of formal organizational diversity activities (e.g., diversity training), whereas diversity practices are the implementation of an organization's diversity programs by lower level managers (Kulik, 2014). Thus, in addition to the day-to-day leader and follower interactions that promote inclusion and prevent exclusion in the work unit, leaders of all levels play critical roles in realizing an organization's diversity and inclusion mission and strategy by implementing organizational diversity and inclusion related policies and programs through leadership practices in the work unit (Kulik, 2014; Mor Barak, 2015). Shore et al. (2018) suggested that inclusive leaders comply with organizational diversity and inclusion related policies (e.g., recruitment of individuals from protected social categories, management of harassment and discrimination claims) and implement organizational diversity and inclusion related programs (e.g., organizational diversity training programs). The successful implementation of the organization's strategic objectives to achieve significant performance improvement can only occur when there is alignment between senior leaders and immediate supervisors (O'Reilly, Caldwell, Chatman, Lapiz, & Self, 2010). Randel et al. (2011) suggested that top management philosophy and values

can directly affect the types of practices enacted in workgroups that promote or undermine inclusion. Immediate supervisors play an important role in translating and disseminating information about new strategies initiated by senior leaders (Berson & Avolia, 2004), and foster an inclusive work unit as a function of the organizational diversity policies and programs they implement (Perry & Li, 2019b). Thus, the current research argues that inclusive leaders implement organizational diversity and inclusion related policies and programs at the work unit level. However, current existing empirical measures do not include inclusive leadership behaviors related to implementing organizational diversity and inclusion related policies and programs.

Direct and Indirect Effects of Inclusive Leadership

Despite the fact that there is some uncertainty regarding what inclusive leadership is and is not, there is some emerging evidence of its impact. Research has documented both direct and indirect effects of inclusive leadership on a variety of team and individual level outcomes (Perry, Block, & Noumair, 2020).

Direct Effects

There is evidence for a direct effect of inclusive leadership on individual level outcomes. Inclusive leadership is positively related to employee work engagement (Choi et al., 2015), employee well-being (Choi et al., 2017), employee innovative behavior (Choi et al., 2015; Choi et al., 2017; Fang et al., 2019; Javed et al., 2018; Javed et al., 2019; Qi, Liu, Wei, & Hu, 2019), employee perception of workgroup inclusion (Chung et al., 2020), employee perception of workgroup effectiveness (Jin et al., 2017), employee voice behavior (Li & Huang, 2017; Qi & Liu, 2017), employee procrastination behavior (Lin, 2018), employee organizational citizenship behavior (Panicker et al., 2018; Randel et al., 2016), employee taking-charge behavior (Zeng,

Zhao, & Zhao, 2020), employee learning from errors (Ye, Wang, & Li, 2018), and employee task performance (Zheng, Yang, Diaz, & Yu, 2018).

There is also evidence of a direct effect of inclusive leadership on work unit level outcomes. Inclusive leadership is positively related to team engagement in quality improvement work (Nembhard & Edmondson, 2006), team identification (Lin, Tsai, & Liu, 2016), and team performance (Qi & Liu, 2017); and negatively related to team dysfunctional behavior (Lin et al., 2016).

Indirect Effects

Additionally, there is evidence for indirect effects of inclusive leadership on individual level outcomes. Research finds that psychological safety partially mediated the effect of inclusive leadership on employee intentions to report adverse events (Appelbaum, Dow, Mazmanian, Jundt, & Appelbaum, 2016), and employee involvement in creative and innovative work behavior (Carmeli et al., 2010; Javed et al., 2019; Zhu, Xu, & Zhang, 2020), Research has also found that the positive relationship between inclusive leadership and employee innovative behavior was partially mediated by leader member exchange (LMX) (Javed et al., 2018), perceived person-job fit (Choi et al., 2017), perceived organizational support (Qi et al., 2019), and employee psychological capital (optimistic attitudes toward work) (Fang et al., 2019). The positive effect of inclusive leadership on employee voice behavior has been found to be partially mediated by perceived person-job fit (Choi et al., 2017), leader member exchange (LMX) (Li & Huang, 2017), and an aggregated pro-caring and ethical team climate (Qi & Liu, 2017). Additionally, affective organizational commitment and employee creativity partially mediate the effect of inclusive leadership on employee work engagement (Choi et al., 2015). Work group inclusion mediated the relationship between inclusive leadership and employee helping behavior,

employee creativity, and employee job performance (Chung et al., 2020). Intrinsic motivation mediated the negative relationship between inclusive leadership and procrastination behavior (Lin, 2018). Employee's positive mood partially mediated the relationship between inclusive leadership and employees' learning from errors (Ye et al., 2018). Psychological safety and thriving at work (i.e., a psychological state in which individuals experience both a sense of vitality and learning) mediated the relationship between inclusive leadership and employee taking-charge behavior (i.e., effort of initiating self-improvement, improving organizational operations, and promoting functional changes in the organization, Zeng et al., 2020).

There is also evidence for indirect effects of inclusive leadership on work unit level outcomes. Research finds that aggregated work unit psychological safety partially mediated the effect of inclusive leadership on team engagement (Nembhard & Edmondson, 2006), and team performance (Hirak et al., 2012). Moreover, there is evidence that inclusive leadership positively impacts team performance through greater team identification (Lin et al., 2016; Mitchell et al., 2015), lower perceived status differences (Mitchell et al., 2015) and a pro-caring and ethical team climate (Qi & Liu, 2017).

Moderated Effects

Research finds evidence for individual level moderators (e.g., race and gender) impacting the direct and indirect effects of inclusive leadership on individual level outcomes. For example, research has found that inclusive leadership predicts employee perceptions of work group performance more strongly for racial minorities than for whites (Jin et al., 2017). Additionally, the positive relationship between inclusive leadership and employee organizational citizenship behavior appears to be stronger in the context of a positive psychological diversity climate (Randel et al., 2016). Moreover, these researchers found that these relationships were stronger

for racial-ethnic minorities and women than for members of the racial-ethnic majority and men (Randel et al., 2016). Ye et al. (2018) found that inclusive leadership was indirectly related to employees' learning from errors through positive mood and this indirect relationship was stronger for female employees than for male employees. Lastly, the mediating effect of employee intrinsic motivation on the relationship between inclusive leadership and employee procrastination behavior was stronger for employees with a high level of perceived insider status than those with a low level of perceived insider status (Lin, 2018).

Research also finds evidence for work unit level moderators (e.g., work unit diversity) impacting the direct and indirect effects of inclusive leadership on work unit level outcomes. Inclusive leadership had a weaker effect on team identification when there was a higher negative affective tone (team's collective experience of negative emotions) than when there was a lower negative affective tone (Lin et al., 2016). Moreover, professional diversity moderated the mediated relationship between inclusive leadership, perceived status differences, and team performance. Inclusive leadership resulted in a greater increase in team performance through lessened perceived status differences when teams were more professionally diverse than when teams were less professionally diverse (Mitchell et al., 2015).

Existing Measures of Inclusive Leadership

A review of the literature revealed seven established measures of inclusive leadership, each based on a slightly different conceptualization of what inclusive leadership is (Ashikali, 2019; Carmeli et al., 2010; Fang et al., 2019; Jin et al., 2017; Nembhard & Edmondson, 2006; Panicker et al., 2018; Zheng et al., 2017). The most frequently used measures are those developed by Carmeli et al. (2010) and Nembhard and Edmondson (2006). Carmeli et al.'s 9-item measure was designed to assess three dimensions of inclusive leadership: openness,

availability and accessibility. Sample items include, “the manager is open to hearing new ideas” (openness), “the manager is ready to listen to my requests” (availability), and “the manager is accessible for discussing emerging problems” (accessibility). Nembhard and Edmondson (2006) developed a three-item measure in the health care setting to capture leaders’ words and deeds that indicated an invitation and appreciation for others’ contributions. The three items are, “physician leadership encourages nurses to take initiative”, “physicians ask for the input of team members that belong to other professional groups”, and “physicians do not value the opinion of others equally” (reverse scored). However, there are a number of limitations that are associated with existing measures of inclusive leadership in the literature.

First, existing measures of inclusive leadership do not fully capture the full scope of the four dimensions of inclusive leadership identified in the inclusive leadership literature. These measures typically focus on whether immediate supervisors provide fair treatment (e.g., “I am treated fairly and with dignity”, Panicker et al., 2018) and facilitate integration (e.g., “Physicians ask for the input of team members that belong to other professional groups”, Nembhard & Edmondson, 2006; “My supervisor cultivates participative decision making and problem solving processes”, Zheng et al., 2017; “My manager is open to hearing new ideas”, Carmeli et al., 2010; “My supervisor stimulates me to exchange different ideas with colleagues”, Ashikali, 2019). None of the existing measures *directly* measures inclusive leadership behaviors addressing employees’ fundamental needs for belongingness, uniqueness, and authenticity. Additionally, current measures overlook the role that immediate supervisors play in implementing (or failing to implement) organizational diversity and inclusion related policies, programs and practices in the work unit. Thus, in order to capture all dimensions of leader inclusiveness, the current

research aims to develop a theory-based measure of inclusive leadership that includes questions focusing on each of the four dimensions identified from the inclusive leadership literature.

Second, the referent of the items in questions vary both within and across measures, raising serious questions about the validity of the existing inclusive leadership measures. For example, some items ask respondents to report their own experience with their leader (e.g., "the manager is ready to listen to *my* requests"), whereas other items ask respondents to speak to how the leader treats all group members (e.g., "physicians ask for the input of *team members* that belong to other professional groups"), while still others leave the referent unspecified (e.g., "the manager is accessible for discussing problems"). As a result, sometimes employees' responses reflect their personal experiences with the leader, other times their assessment of how the leader is with the work unit as a whole, and still other times it is unclear whether they reflect either or both (Arthur & Boyles, 2007). Thus, in order to attain high reliability and validity, the current research aims to develop an evidence-based measure of inclusive leadership that includes questions with the consistent referent, "all work unit members", since inclusive leadership is particularly relevant in teams with power and status differences (Nembhard & Edmondson, 2006) and inclusive leadership is about including both marginalized and non-marginalized group members (Nishii, 2013; Randel et al., 2018).

The third limitation of existing measures of inclusive leadership is that few authors provide evidence of different forms of validity and reliability associated with their measures, and some of the information provided is inconsistent with the authors' own assumptions. For example, Carmeli et al. (2010) conceptualized a three-dimensional construct of inclusive leadership (openness, availability, and accessibility). However, the researchers' factor analytic results indicated a one factor solution. Further, reliability was established for the overall measure

rather than for each of the three dimensions the measure was intended to capture. Thus, in order to establish a theoretically and empirically rigorous measure of inclusive leadership, the current research aims to provide stronger evidence for the construct, convergent, discriminant, incremental, and criterion-related validities and reliability of the inclusive leadership measure.

The fourth limitation is that the existing measures of inclusive leadership include questions that typically focus only on immediate supervisors or managers. Example items include: "my *manager* is available for consultation on problems", Carmeli et al., 2010; "my *supervisor* supports my need to balance work and other life issues", Jin et al., 2017; and "my *supervisor* shows respect and recognition for others", Zheng et al., 2017. Previous measures do not acknowledge the possibility that inclusive leadership among senior and lower level leaders may be somewhat different and consequently they do not explicitly address at what levels their measures are most relevant (lower, middle or senior level managers). The current measure is explicitly developed to focus on the inclusive leadership behaviors of immediate supervisors. After we get a clearer understanding of what inclusive leadership is at the immediate supervisor level, a next step would be to determine whether and how the measure would need to be modified in order to assess senior leaders' inclusiveness.

Lastly, existing measures of inclusive leadership as well as the existing empirical research on inclusive leadership typically relies on data collected from the leaders' employees rather than from the leaders' self-reports or the leaders' peers. Relying on employees assumes that any given employee has witnessed all of the leadership behaviors in question (Hunter, Bedell-Avers, & Mumford, 2007). It also ignores the fact that the target leader and his or her peers have access to some overlapping but also different information about the target's leadership. Future measures of inclusive leadership should expand the sources of data used to

measure inclusive leadership (at all levels) to include self-reported behavior, data from peers, as well as archival data (e.g., websites, documentation of policies and practices). Importantly, the content of the inclusive leadership measure may need to be modified for different respondent stakeholders. The current measure is explicitly developed to be completed by subordinates of the target leader. A next step would be to modify the measure to assess leaders' inclusiveness from different stakeholder perspectives (e.g., peers, self-reports).

CHAPTER 3: METHODOLOGY

The current research developed a theoretically and empirically rigorous measure of inclusive leadership by applying the iterative instrument design and validation "Process Model" (Chatterji, 2003). The Process Model entails four phases for assessment design and validation. Phase 1 specifies the assessment context; phase 2 specifies the construct domains; phase 3 includes designing the instrument; and phase 4 focuses on validating the measure, including both content validation and empirical validation (Chatterji, 2003).

Phase 1: Assessment Context

The first phase of instrument design and validation requires researchers to identify the construct that will be assessed, the population on whom it will be assessed, and the purposes for assessment (e.g., How will the information resulting from the assessment tool be used and interpreted?) (Chatterji, 2003).

The Construct

The instrument was designed to measure inclusive leadership behaviors. Specifically, it was designed to measure the perception of inclusive leadership behaviors, a non-cognitive construct; tapping employees' self-reports of past experiences with their managers' inclusive leadership behaviors.

The Population

The instrument was designed for employees in workplaces who have an immediate supervisor or manager and work in teams or units that require colleague interactions. Leader inclusiveness is not only about "the leader includes me", but also about "the leader includes everyone in my work unit". In order to be able to answer questions about leader behaviors that include everyone in the work unit, employees must first have a supervisor and then work in

teams that require interactions with other team members. The Inclusive Leadership Questionnaire provided instructions for participants to understand the definition of a work unit as "the group or team of employees with whom you work that has the same manager, shares common goals and is responsible for accomplishing specific tasks"; and the definition of a manager as "the person to whom you report most directly and with whom you have the most direct communication".

Raw scores generated from the Inclusive Leadership Questionnaire are focused at the individual level. However, individual scores can be aggregated to the work unit level in order to obtain work unit level collective perceptions of a manager's inclusiveness.

The Use

The first use of the Inclusive Leadership Questionnaire would be research related. The instrument can be used to expand knowledge about the construct of inclusive leadership, and how it is conceptually related to other constructs in general. Individual level criteria associated with inclusive leadership are work engagement (Choi et al., 2015), job performance (Hirak et al., 2012; Randel et al., 2018), organizational citizenship behaviors (Randel et al., 2016), and creative behaviors (Carmeli et al., 2010; Choi et al., 2015).

The second use of the Inclusive Leadership Questionnaire would be practice related. Companies could use the instrument to assess the inclusiveness of their leaders' behaviors. The four dimensions of inclusive leadership could provide insight into areas in which leaders need further improvement through coaching and/or leadership development. It could also potentially benefit the organization's diversity management practices by evaluating whether leaders actually implement their organization's diversity and inclusion related policies and programs in their work units.

The Inference

The inferences that could be drawn from the Inclusive Leadership Questionnaire are related to the extent to which leaders are inclusive with respect to: providing equal opportunity and fair treatment, encouraging integration and synergy, directly addressing work unit members' fundamental needs for uniqueness, authenticity, and belongingness, and implementing organizational diversity and inclusion related policies and programs in their work units.

The Scale

A structured, computer-based survey using a 1-5 Likert-type scale (almost never, seldom, sometimes, often, almost always) was employed to measure the frequency of inclusive leadership behaviors. Higher scores indicate higher frequency of inclusive leadership behaviors. The rationale for using a Likert-type scale is that the scale is easy to administer in workplaces and the data can be easily quantified and analyzed.

Phase 2: Domain Specifications

The second phase of the Process Model of instrument design and validation is to specify the domains for the construct, which will directly affect the content-based validity of the instrument (Chatterji, 2003). In the current research, domain specifications were developed based on an extensive review of the inclusion and inclusive leadership literatures. Four dimensions of inclusive leadership were abstracted from the literature and each dimension has multiple sub-dimensions. The first dimension is the extent to which the manager provides equal opportunity and fair treatment to all work unit members. The second dimension is the extent to which the manager encourages integration and synergy among all work unit members. The third dimension is the extent to which the manager directly addresses all work unit members' fundamental needs for belongingness, uniqueness, and authenticity. The fourth dimension is the extent to which the

manager implements organizational diversity and inclusion related policies and programs in the work unit.

Additionally, there are specific sub-dimensions within the first three dimensions. Under the first dimension (providing equal opportunities and fair treatment), inclusive leaders: 1) provide equal opportunity for all work unit members, 2) provide fair treatment to all work unit members, and 3) manage micro inequalities and subtle discrimination.

Under the second dimension (encouraging integration and synergy), inclusive leaders: 1) facilitate open communication, 2) seek diverse contributions, 3) integrate different perspectives, 4) implement shared decision-making and problem-solving processes, 5) welcome constructive debates and collaboration, and 6) encourage mutual learning among all work unit members regardless of their status or power.

Under the third dimension (addressing fundamental needs for uniqueness, authenticity, and facilitating belongingness), inclusive leaders: 1) value individual differences, 2) make it safe for members to express their authentic selves, and 3) create a cohesive work unit where members feel like they belong.

Phase 3: Item Development

The current research used both deductive and inductive approaches to generate items that would assess how leaders exhibit or demonstrate inclusive leadership. Based on the comprehensive literature review, the initial Inclusive Leadership Questionnaire included 40 items that tap the four dimensions identified as constituting the inclusive leadership construct in theory (See Appendix A).

For each item, the referent is the "manager" and the scope of the target is "all work unit members". Specifically, each item starts with the referent "my manager", followed by the

inclusive behavior (e.g., offers, encourages, values), with the scope of the target being "all work unit members" or "in the work unit", and finally the content (e.g., diverse input, equal access to resource, different perspectives in decision making).

Phase 4: Instrument Validation

The validation of Inclusive Leadership Questionnaire included content validation and empirical validation. The content validation of the Inclusive Leadership Questionnaire aimed to establish its content based validity. The empirical validation of the Inclusive Leadership Questionnaire included establishing its construct validity, convergent and discriminant validities, concurrent criterion validity, incremental validity, and reliability.

Content Validation

Sample

Content-based validity evidence was based on data collected from research experts using a content validity index. This purposive sample of experts was defined as nationally recognized subject matter experts who have conducted research in the field of inclusive leadership, diversity management, and/or other similar domains. To be considered as experts in the field, participants had to have doctorate degrees, hold tenure track faculty positions at universities, and have published research on the topic of inclusive leadership, diversity management, and/or related domains. Determining the number of experts is somewhat arbitrary (Zamanzadeh et al., 2015). Lynn (1986) recommends at least three experts, but that no more than ten is necessary for content validation. In a panel of five or fewer experts, all must agree on the relevancy of an instrument item in order to be considered reasonably representative (Item Content Validity Index, I-CVI = 1.00). However, in a panel of six to eight experts, the acceptable I-CVI can relax to .83, allowing for one expert to rate the item as "not relevant".

A subject matter expert survey invitation was sent to 13 nationally recognized experts. Six subject matter experts completed the online survey (response rate = 46%, 4 females and 2 males). Five participants identified as White/Caucasian and one participant identified as Asian/Asian American. Participants identified their age category as: 60 or older (50%), 50-59 (16.67%), 40-49 (16.67%), or 30-39 (16.67%). On average, experts had 26.17 years (*SD* = 13.09) of experience in their field.

Procedures

Subject matter experts received an email invitation to review the proposed measure of inclusive leadership. They were requested to assess the relevance of the items on the scale, and provide any feedback they may have had about the items. They were informed that the survey would take about 10 minutes to complete, and their responses would be anonymous and confidential, and would be utilized to retain, modify, or remove items from the proposed ILQ measure. Although there was no monetary compensation, experts were thanked by the researcher and were told that their participation in the study was extremely valuable to advancing the understanding of inclusive leadership in the workplace. A link to the online survey was offered for participation in the end of the email. The invitation email used for recruiting subject matter experts can be found in Appendix B.

The online survey asked experts to indicate the extent to which the originally specified construct dimensions, specific sub-dimensions, and items tapping the inclusive leadership behaviors, were consistent with the theory and research literature on the inclusive leadership construct (Chatterji & Lin, 2018). Experts provided ratings for each item on a 4-point scale of relevance (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant) (Waltz & Bausell, 1981). Additionally, two open-ended questions solicited recommended

changes to the instrument content. Finally, experts provided demographic information (e.g., gender, age, years of research experience in the field). The full survey used for content validation can be found in Appendix C. This data was used to determine if any instrument items needed to be modified or removed.

Empirical Validation

Sample

Participants in the study were obtained from Amazon's online platform Mechanical Turk (MTurk). MTurk is an online sampling pool that has become increasingly popular among organizational psychologists over the past several years. Horton, Rand, and Zeckhauser (2011) found that online experiments conducted using MTurk participants can be as valid as laboratory and field experiments, while reducing researcher time and cost. Because inclusive leadership behaviors might be interpreted differently in different countries and cultures, only U.S. participants over 18 years of age who were currently working were recruited. The current research recruited a total of 538 participants for the empirical validation of the Inclusive Leadership Questionnaire, of which, 9 participants failed either one or both of the attention check questions. An example of the attention check question was "*For this question, please select "Almost never" to demonstrate your attention*." Thus, the empirical validation of the ILQ was conducted using a sample of 529 U.S. participants from MTurk who were currently working.

Among the 529 participants, 215 participants identified as female (40.6%), 313 participants identified as male (59.2%), and one participant identified as other (.2%). Sixty eight participants identified as African American/Black (12.9%), 42 participants identified as Asian/Asian American (7.9%), 28 participants identified as Hispanic/Latino (5.3%), 377 participants identified as White/Caucasian (71.3%), one participant identified as American

Indian/Alaska Native (.2%), two participants identified as Native Hawaiian/Other Pacific Islander (.4%), and 11 participants identified as other racial category (2.1%). Participants identified their age category as: 60 or older (4.9%), 50-59 (9.6%), 40-49 (17.8%), 30-39 (43.9%), 21-29 (23.8%), or 18-20 (0%). Participants identified their education category as: Less than high school degree (.6%), High school degree or equivalent (10.4%), Some college but no degree (16.3%), Associate degree (13.4%), Bachelor degree (45.9%), Graduate degree (13.2%), or other (.2%). On average, participants had 15.86 years (*SD* = 10.56) of full-time work experience, and 4.07 years (*SD* = 5.66) of management experience.

As part of a scale development process, confirmatory factor analysis should be run using a dataset different from the exploratory factor analysis dataset to avoid the high danger of overfitting (Fokkema & Greiff, 2017). To establish the construct validity of the ILQ, the 529 participants were randomly split into two equivalent sub-samples (sample 1 and sample 2). Sample 1 (N = 264) was used for exploratory factor analysis and sample 2 (N = 265) was used for confirmatory factor analysis. Though there are varying rules of thumb for the sample size required for factor analyses in the literature (Williams, Onsman, & Brown, 2010), sample to item ratio (*N:p* ratio where *N* refers to the number of participants and *p* refers to the number of items) is a recommended way for researchers to decide the sample size. However, the rules of thumb range anywhere from 3:1, 6:1, 10:1, or 20:1 (Williams et al., 2010). In the current research, the Inclusive Leadership Questionnaire had 40 items, a sample size of 265 participants provided a sample to item ratio slightly over 6:1 (in the middle of the range), which was sufficient for a factor analysis.

Procedures

Participants were told that the purpose of the study was to understand various leadership behaviors in the workplace. They were also told that completion of the survey would take approximately 20 minutes. Participants were informed that their information would be kept strictly confidential and only the primary researcher would have access to the data. They were also informed that their participation was voluntary and that they could withdraw from the study at any point during the course of the study. After confirming their agreement to participate, participants were asked to answer a series of questions about their manager's leadership behaviors, some work related and finally demographic questions about themselves. The order of study measures was as follows: Inclusive leadership questionnaire (ILQ), leader inclusiveness (Nembhard & Edmondson, 2006), one item measuring inclusive leadership ("*My manager is an inclusive leader"*), participative leadership (Indvik, 1985), perception of work unit inclusion (Chung et al., 2020), innovative behavior (Carmeli et al., 2010), helping behavior (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), enjoyment of nature (Milfont & Duckitt, 2010), and personality (Gosling, Rentfrow, & Swann, 2003). Within each measure, items were presented in a randomized order. Two attention check questions were included to ensure the quality of responses (e.g., "*For this question, please select "Almost never" to demonstrate your attention"*. 1-5 scale from *almost never* to *almost always*). Participants who completed the survey in its entirety were given a $2 Amazon payment.

Measures

Below are the measures used for empirical validation of the Inclusive Leadership Questionnaire (ILQ). A list of study measures with all items and the Cronbach's alphas in the current research can be found in Appendix D.

Leader Inclusiveness. Nembhard and Edmondson's (2006) leader inclusiveness scale was used to establish the convergent validity as well as the incremental validity of the ILQ. The ILQ should be highly correlated with and explain additional variance beyond existing measures of inclusive leadership. Nembhard and Edmondson's (2006) three-item measure of leader inclusiveness was initially developed in the health care setting (alpha = .75). The items were adapted in the current research to fit a more generic workplace. A sample item was, "my manager asks for the input of all team members". Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*); higher scores indicated a higher level of leader inclusiveness (alpha = .82).

One Item Measure of Inclusive Leadership. A one item measure of inclusive leadership, "my manager is an inclusive leader", was used to establish the convergent validity of the ILQ. The item was developed for the current research. Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*); higher scores indicated a higher level of inclusive leadership.

Participative Leadership. Five items measuring participative leadership (alpha = .86; Indvik, 1985; Northouse, 2018; Polston-Murdoch, 2013) were also used to establish the convergent validity of the ILQ. Inclusive leadership is conceptually related to participative leadership that involves followers in decision making and problem solving. Sample items were, "my manager consults with subordinates when facing a problem" and "my manager asks subordinates for suggestions on what assignments should be made". Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*); higher scores indicated a higher degree of participative leadership (alpha = .91).

Enjoyment of Nature. Six items assessing enjoyment of nature (alpha = .87; Milfont & Duckitt, 2010) were used to establish the discriminant validity of the ILQ, since the two constructs, enjoyment of nature and inclusive leadership, are conceptually dissimilar. A sample item was, "Being out in nature is a great stress reducer for me". Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*); higher scores indicated a higher degree of enjoyment of nature (alpha = .91).

Personality. Extraversion and agreeableness from the Big-five Personality Inventory (Gosling, Rentfrow, & Swann, 2003) were also used to establish the discriminant validity of the ILQ. Research finds low correlations between leader inclusiveness and participants' personality dimensions of extraversion (alpha = .64; r = .09) and agreeableness (alpha = .26; r = .12) (Chung et al., 2020). Extraversion was measured as "I see myself as extraverted and enthusiastic" and "I see myself as reserved and quiet" (alpha = .81; average inter-item correlation = .68). Agreeableness was measured as "I see myself as sympathetic and warm" and "I see myself as critical and quarrelsome" (alpha = .56; average inter-item correlation = .40). Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*).

Perception of Work Unit Inclusion. Research finds leader inclusiveness as a significant predictor of work group inclusion (Chung et al., 2020). A measure of work unit inclusion was used to establish the concurrent criterion validity and incremental validity of the ILQ. Perception of work unit inclusion was assessed using nine items from Chung et al.'s (2020) work group inclusion scale (alpha = .94). Sample items included, "I belong in my work group", and "I can share a perspective on work issues that is different from my group members". Ratings were made on a five-point scale (*strongly disagree* to *strongly agree*); higher scores indicated a higher level of perceived work unit inclusion (alpha = .94).

Helping Behavior. Helping behavior is one of the most frequently studied individual level outcomes of inclusive leadership in the literature (e.g., Panicker et al., 2018; Randel et al., 2016). As a result, a measure of helping behavior was used to establish the concurrent criterion validity and incremental validity of the ILQ. Helping behavior was assessed using five items from Podsakoff, MacKenzie, Moorman, and Fetter's (1990) organizational citizenship behavior scale measuring altruism (alpha = .85). Participants were asked the extent to which they are involved in helping others. Sample items included, "help with others who have been absent", and "help with others who have heavy workloads". Ratings were made on a five-point scale (*almost never* to *almost always*); higher scores indicated a greater involvement in helping behaviors (alpha = .90).

Innovative Behavior. Innovative behavior is one of the most frequently studied individual level outcomes of inclusive leadership in the literature (e.g., Choi et al., 2015; Choi et al., 2017; Fang et al., 2019; Javed et al., 2019; Qi et al., 2019). As a result, a measure of innovative behavior was used to establish the concurrent criterion validity and incremental validity of the ILQ. Innovative behavior was assessed using four items from Carmeli et al.'s (2010) creative work behavior scale (alpha = .89). Participants were asked the extent to which they are involved in behaviors such as generating novel but operable work-related ideas. Ratings were made on a five-point scale (*almost never* to *almost always*); higher scores indicated greater involvement in innovative work behaviors (alpha = .89).

CHAPTER 4: RESULTS

Content Validation

Content Validation Index

The data collected from subject matter experts were analyzed using the content validity index (CVI). The content validity index (CVI) is an index measuring the consensus of the relevance of each item. The 4-point relevancy scale was dichotomized into two categories, *not relevant* (1s and 2s) and *relevant* (3s and 4s) (Polit & Beck, 2006). Specifically, the current research used the item content validity index (I-CVI) to examine the proportion of agreement on the relevance of each item. The I-CVI was computed as the number of experts giving a rating of either 3 or 4 (indicating relevant), divided by the number of experts. For a panel of six to eight experts, a scale with excellent content validity should have I-CVIs of 0.83 or higher (Lynn, 1986).

$$\text{I-CVI} = \frac{\text{Number of experts agreeing on items rated as 3 or 4}}{\text{Total number of experts}}$$

In addition, the scale content validity index (S-CVI) was computed to ensure content validity of the overall scale. The average I-CVI for all items was calculated (Zamanzadeh et al., 2015). Researchers recommend that a scale with excellent content validity should have an S-CVI(Average) of 0.90 or higher (Shi, Mo, & Sun, 2012).

$$\text{S-CVI (Average)} = \frac{\text{Sum of I-CVIs for all items}}{\text{Total number of items}}$$

Table 1

Content Validation on 40 ILQ Items by Six Subject Matter Experts

Dimension	Item	I-CVI	Fleiss' Kappa	Decision
Providing equal opportunities & fair treatment	My manager makes training opportunities equally accessible to all work unit members.	0.83	0.82	Keep
Providing equal opportunities & fair treatment	My manager makes challenging assignments equally accessible to all work unit members.	1.00	1.00	Keep
Providing equal opportunities & fair treatment	My manager makes him/herself equally accessible to all work unit members.	1.00	1.00	Keep
Providing equal opportunities & fair treatment	My manager makes resources equally accessible to all work unit members.	1.00	1.00	Keep
Providing equal opportunities & fair treatment	My manager shares important information with all work unit members.	0.67	0.56	**Drop**
Providing equal opportunities & fair treatment	My manager conducts fair performance reviews of work unit members.	1.00	1.00	Keep
Providing equal opportunities & fair treatment	My manager makes recommendations for promotion fairly in the work unit.	0.83	0.82	Keep
Providing equal opportunities & fair treatment	My manager treats everyone in the work unit fairly.	1.00	1.00	Keep
Providing equal opportunities & fair treatment	My manager manages biases toward marginalized group members in the work unit.	0.83	0.82	Keep
Providing equal opportunities & fair treatment	My manager confronts both direct and subtle forms of discrimination in the work unit.	1.00	1.00	Keep
Encouraging integration & synergy	My manager listens to all work unit members with respect.	1.00	1.00	Keep
Encouraging integration & synergy	My manager tries to understand different viewpoints in the work unit.	1.00	1.00	Keep
Encouraging integration & synergy	My manager communicates openly with all work unit members.	1.00	1.00	Keep

Dimension	Item	I-CVI	Fleiss' Kappa	Decision
Encouraging integration & synergy	My manager seeks members' input when pursuing work unit goals.	0.83	0.82	Keep
Encouraging integration & synergy	My manager encourages diverse inputs from all members to achieve work unit goals.	1.00	1.00	Keep
Encouraging integration & synergy	My manager encourages work unit members to contribute in their own ways.	0.83	0.82	Keep
Encouraging integration & synergy	My manager is open to alternative perspectives when working on shared problems in the work unit.	0.67	0.56	**Drop**
Encouraging integration & synergy	My manager integrates perspectives from all work unit members.	1.00	1.00	Keep
Encouraging integration & synergy	My manager encourages everyone in the work unit to participate in decision making.	1.00	1.00	Keep
Encouraging integration & synergy	My manager asks for opinions from all work unit members when making decisions.	1.00	1.00	Keep
Encouraging integration & synergy	My manager actively incorporates different points of view into final decisions.	1.00	1.00	Keep
Encouraging integration & synergy	My manager implements a shared decision-making process	0.67	0.56	**Drop**
Encouraging integration & synergy	My manager implements an inclusive problem-solving process	0.67	0.56	**Drop**
Encouraging integration & synergy	My manager welcomes constructive debate among work unit members.	0.83	0.82	Keep
Encouraging integration & synergy	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	1.00	1.00	Keep
Encouraging integration & synergy	My manager encourages all work unit members to collaborate with each other.	0.83	0.82	Keep
Encouraging integration & synergy	My manager encourages work unit members of diverse backgrounds to exchange ideas.	1.00	1.00	Keep

Dimension	Item	I-CVI	Fleiss' Kappa	Decision
Encouraging integration & synergy	My manager encourages all work unit members to learn from one another.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager respects individual differences in the work unit.	0.83	0.82	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager values the uniqueness of all work unit members.	0.83	0.82	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager values the differences that members of diverse backgrounds bring to the work unit.	0.83	0.82	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager encourages work unit members to share their true selves.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager encourages work unit members to be their authentic selves.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager makes it safe for work unit members to authentically express themselves.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager tries to make all members feel like they belong to the work unit.	1.00	1.00	Keep
Directly addressing needs for uniqueness, belongingness, and authenticity	My manager tries to create a cohesive work unit where members feel like they belong.	1.00	1.00	Keep

Dimension	Item	I-CVI	Fleiss' Kappa	Decision
Implementing org D&I policies & programs	My manager complies with organizational diversity and inclusion policies in the work unit.	0.50	0.27	**Drop**
Implementing org D&I policies & programs	My manager implements organizational diversity and inclusion programs in the work unit.	0.83	0.82	Keep
Implementing org D&I policies & programs	My manager implements organizational diversity and inclusion initiatives in the work unit.	0.83	0.82	Keep
	S-CVI(Average)	0.90		

The I-CVI presented in Table 1 is the percentage of agreement for the relevancy of each item among six raters. Among the 40 items, 23 items received 100% agreement, 12 items received 83% agreement, 4 items received 67% agreement, and 1 item received 50% agreement. I-CVI ranged from 0.50 to 1.00. Given that researchers recommend that a scale with excellent content validity should have I-CVIs of 0.83 or higher, the majority of items were considered relevant among raters, with the exception of five items (see Table 1, marked as dropped). The S-CVI presented in Table 1 is the percentage of items judged to be relevant among six raters for the entire scale. S-CVI (Average) is 0.90 for the 40 items. Given that researchers recommend that a scale with excellent content validity should have a S-CVI (Average) of 0.90 or higher, the current ILQ were considered content relevant.

Fleiss' Kappa

To better understand the interrater agreement in general, and to increase confidence in the content validity of new instruments, research suggests reporting both proportion agreement (I-CVI), and the kappa statistic as a measure of agreement beyond chance (Wynd, Schmidt, & Schaefer, 2003). The kappa statistic is a measure of inter-rater agreement that can account for the probability of random chance of agreement among raters that is not controlled in the I-CVI (Wynd et al., 2003). The current research used Fleiss' (1971) kappa since it accounts for the random chance of agreement among multiple raters. It was calculated in the formula below, where Pc is the probability of chance agreement, N is the number of experts, and A is the number of experts that agree the item is relevant. According to Cicchetti (1984) and Fleiss (1971), the strength of agreement is considered poor when the Kappa statistic is below .40, fair between .40 – .59, good when it is between .60 – .74, and excellent when it is between .75 – 1.0. Thus, in the

current research, a Kappa statistic of .75 or higher was deemed acceptable for establishing content validity.

$$\text{Fleiss' kappa} = \frac{\text{I-CVI} - \text{Pc}}{1 - \text{Pc}}$$
$$\text{where Pc} = [N!/A!(N-A)!]*0.5^{N}$$

The Fleiss' kappa presented in Table 1 is the percentage of agreement for the relevancy of each item among six raters accounting for the probability of experts randomly agreeing with each other by chance. Among the 40 items, 23 items received 100% agreement, 12 items received 82% agreement, 4 items received 56% agreement, and 1 item received 27% agreement. Fleiss' kappa ranged from 0.27 to 1.00, with an overall average Fleiss' kappa of 0.88 for the 40 items. Given that researchers recommend that a scale with excellent content validity should have Fleiss' kappas of 0.75 or higher, the majority of items were considered relevant among raters, with the exception of five items, consistent with the I-CVI results (see Table 1, marked as dropped).

Finally, open-ended feedback, related to the retained 35 items based on the results of content validation index and Fleiss' kappa, was taken into consideration. Small wording changes were suggested to the item, "my manager *manages* biases toward marginalized group members in the work unit". Based on expert feedback, this item was changed to "my manager *reduces* biases toward marginalized group members in the work unit". In summary, a total of 35 items with excellent I-CVI, S-CVI, and Fleiss' kappa were moved to the empirical validation phase of the study.

Empirical Validation

Preliminary Analysis

Descriptive Statistics. Descriptive statistics were examined on all 35 ILQ items (see Table A-1). Item means ranged from 3.33 (*SD* = 1.16) ("*My manager encourages work unit members to challenge each other's perspectives in a constructive way*") to 4.05 (*SD* = 1.07) ("*My manager listens to all work unit members with respect*"). The range of item responses (on a five-point scale) was 4, with the minimum of 1 and maximum of 5, for each of the 33 ILQ items. Lastly, all 35 items demonstrated univariate normality with item kurtosis ranging from -.78 ("*My manager confronts both direct and subtle forms of discrimination in the work unit*") to .87 ("*My manager makes resources equally accessible to all work unit members*"). The descriptive statistics indicated that the 35 items were suitable for further analyses.

Item Correlations. Bivariate correlations between all 35 ILQ items were calculated (see Table A-2). Item correlations ranged from .41 to .82. Items that had a correlation of .80 or higher were considered to be multicollinear, indicating that they were capturing very similar information about the construct (Beavers et al., 2013). In order to minimize multicollinearity, one of the items in high bivariate correlations should be removed (Fields, 2013). There were three pairs of items having correlations equal to or above .80. The first pair had a correlation of .82 for item 66 ("*My manager encourages work unit members to share their true selves"*) and item 67 ("*My manager encourages work unit members to be their authentic selves"*). Both items were generated to measure the extent to which a manager directly address an employee's fundamental need for authenticity. Item 67 was retained as it explicitly used the word "authentic selves" in the item stem to measure the construct of authenticity. The second pair had a correlation of .81 for item 69 ("*My manager tries to create an atmosphere in which all work unit*

members feel a sense of belongingness") and item 71 ("*My manager tries to create a cohesive work unit where members feel like they belong"*). The third pair had a correlation of .80 for item 70 ("*My manager tries to make all members feel like they belong to the work unit*") and item 71 ("*My manager tries to create a cohesive work unit where members feel like they belong*"). Items in these two pairs were generated to measure the extent to which a manager directly addresses an employee's fundamental need for belongingness. Given that item 71 was highly correlated with both item 69 and item 70, item 71 was removed in order to retain the most items for further analysis. Thus, a total of 33 items with acceptable item statistics and correlations were moved to exploratory factor analysis.

Construct Validity

Exploratory and confirmatory factor analyses were conducted to assess the construct validity of the Inclusive Leadership Questionnaire. These analyses explored and confirmed the proposed internal structure of the measure.

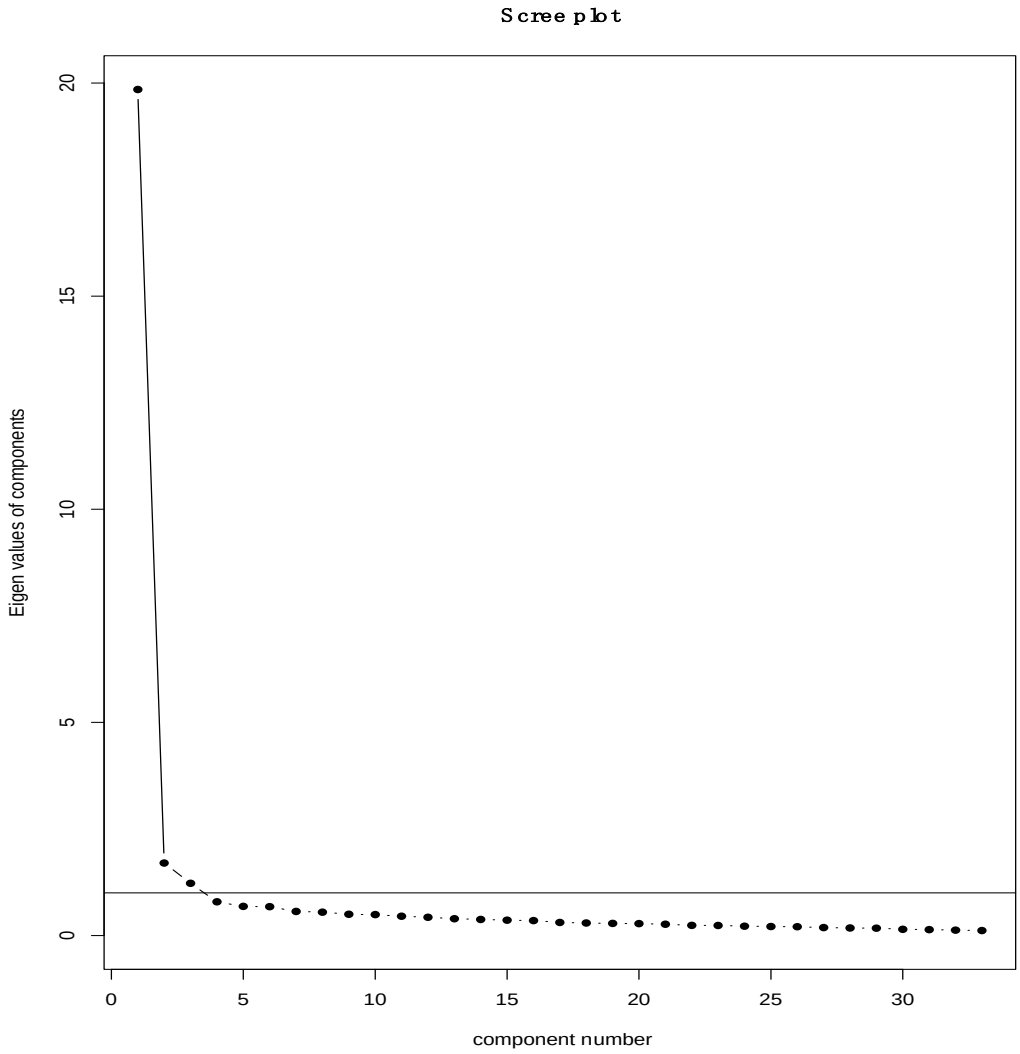
Equivalent Samples Analysis. Demographics of the two samples were compared against one another using Chi-square statistics (for categorical variables) and one-way ANOVA (for continuous variables) to ensure sample equivalence. In addition, a MANOVA was conducted on the 33 ILQ items to assess whether the two samples were comparable. Chi-square tests were not significant for gender, race, age, and education background between Sample 1 and Sample 2. One-way ANOVA tests were not significant for both years of work experience and years of management experience. Thus, the two samples were comparable in terms of demographic information. In addition, the MANOVA test on the 33 items was not significant between Sample 1 and Sample 2, indicating that grouping variable was not contributing to the item variances. Thus, the two samples were comparable in terms of ILQ responses across the 33 items.

Assumption Checks. The current research examined Kaiser-Meyer-Olkin (KMO) index, which examined the sampling adequacy for each item and the entire ILQ, and Bartlett's test of sphericity, which determined whether items were suitable for factor analysis. Results indicated a KMO value of .97 and a significant Bartlett's tests of sphericity for the 33 ILQ items, χ^2 (528) = 8171.47, $p < .001$. Research recommends a KMO value of .60 or higher and a significant Bartlett's test of sphericity for factor analysis (Tabachnick & Fidell, 2001). Thus, the study data were suitable for factor analysis.

Exploratory Factor Analysis (*EFA*). EFA was conducted on the 33 ILQ items using Sample 1 (N = 264) to determine 1) the factor structure, 2) which items load on which factors, and 3) how factors correlated with each other. A principal factor extraction technique was used followed by an oblique rotation of factors, since factors were expected to be inter-correlated. Factors were identified based on eigenvalues > 1, observed breaks in the scree plot and cumulative percent variance explained (Chatterji & Lin, 2018). Analyses revealed that three factors were extracted; accounting for 66% of the total variance. The eigenvalues of the three factors were 19.85, 1.70, and 1.22. The scree plot also indicated a break at the fourth eigenvalue, where the data began to flatten (see Figure 1). In addition, the result of Horn's parallel analysis (comparing observed factor strengths to simulated ones) also suggested a three-factor solution based on the simulated random data with the 33 items.

Figure 1

Scree Plot on 33 ILQ items



Since the current research proposed a theory-based four-factor structure of the inclusive leadership construct, the standardized pattern coefficients (the correlation between a factor and an item) were examined for both the three-factor solution and the four-factor solution. Researchers recommend determining the cut-off for a statistically meaningful rotated factor loading based on the absolute sample size, such that the larger the sample size, the smaller loadings are allowed for a factor to be considered significant (Stevens, 1992). For a sample size

of 300 participants, a rotated factor loading should be at least .32 (explaining approximately 10% of the overlapping variance) to be considered statistically meaningful (Tabachnick & Fidell, 2007). For a sample size of 250 participants, a rotated factor loading should be at least .35 to be considered statistically meaningful (Hair, Anderson, Tatham, & Black, 1998). Given the sample size of the current research (N = 264), items relevant to a factor were identified based on a minimum loading of .35. In addition, researchers recommend that items significantly loading on more than one factor can be treated as ambiguous (Chatterji & Lin, 2018), and cross loadings between factors should differ by more than .20 (i.e., a primary loading should be at least .20 larger than a secondary loading) (Gaskin, 2020). Given that items should be related more strongly to their own factor than to another factor, items loading on multiple factors were retained only if the cross-loadings were larger than .20.

Standardized EFA factor loadings of the 33 ILQ items on a three-factor solution and a four-factor solution are presented in Table 2. The loadings of a three-factor solution indicated the same pattern as the loadings on a four-factor solution. Five items were removed from further analysis: item 36 ("*My manager makes challenging assignments equally accessible to all work unit members*"), item 46 ("*My manager tries to understand different viewpoints in the work unit*"), item 61 ("*My manager encourages work unit members of diverse backgrounds to exchange ideas*"), item 65 ("*My manager values the differences that members of diverse backgrounds bring to the work unit*"), and item 70 ("*My manager tries to make all members feel like they belong to the work unit*"). These five items failed to meet one or both of the two criteria (highest loading > or = .35; and cross-loading > .20) in both the three-factor and four factor solutions.

Table 2

Standardized EFA Factor Loadings of 33 ILQ Items on a Three-factor Solution and a Four-factor Solution

	Item	3 Factor Loading			4 Factor Loading				Decision
		Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3	Factor 4	
Q35	My manager makes training opportunities equally accessible to all work unit members.	0.09	0.71	0.03	0.06	0.70	0.12	-0.10	Retain
Q36	My manager makes challenging assignments equally accessible to all work unit members.	0.41	0.31	0.11	0.34	0.31	0.28	-0.26	**Drop** (cross-loadings < .2)
Q37	My manager makes him/herself equally accessible to all work unit members.	0.19	0.76	-0.15	0.17	0.75	-0.08	-0.09	Retain
Q38	My manager makes resources equally accessible to all work unit members.	-0.11	0.92	-0.01	-0.11	0.90	0.02	0.00	Retain
Q40	My manager conducts fair performance reviews of work unit members.	-0.01	0.69	0.23	0.01	0.66	0.19	0.12	Retain
Q41	My manager makes recommendations for promotion fairly in the work unit.	0.27	0.48	0.12	0.24	0.47	0.20	-0.09	Retain
Q42	My manager treats everyone in the work unit fairly.	-0.05	0.83	0.12	-0.02	0.80	0.08	0.12	Retain
Q43	My manager reduces biases toward marginalized group members in the work unit.	-0.01	0.19	0.73	-0.06	0.15	0.82	-0.05	Retain
Q44	My manager confronts both direct and subtle forms of discrimination in the work unit.	0.08	0.19	0.55	0.02	0.17	0.68	-0.12	Retain
Q45	My manager listens to all work unit members with respect.	0.10	0.71	0.09	0.13	0.69	0.06	0.09	Retain
Q46	My manager tries to understand different viewpoints in the work unit.	0.52	0.40	0.02	0.53	0.39	0.02	0.00	**Drop** (cross-loadings < .2)
Q47	My manager communicates openly with all work unit members.	0.25	0.70	-0.12	0.22	0.70	-0.03	-0.12	Retain

	Item	3 Factor Loading			4 Factor Loading				Decision
		Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3	Factor 4	
Q48	My manager seeks members' input when pursuing work unit goals.	0.77	0.05	0.07	0.80	0.04	0.01	0.08	Retain
Q49	My manager encourages diverse inputs from all members to achieve work unit goals.	0.61	0.13	0.19	0.69	0.11	0.06	0.22	Retain
Q50	My manager encourages work unit members to contribute in their own ways.	0.56	0.20	0.15	0.59	0.19	0.11	0.09	Retain
Q52	My manager integrates perspectives from all work unit members.	0.66	0.11	0.13	0.70	0.09	0.06	0.11	Retain
Q53	My manager encourages everyone in the work unit to participate in decision making.	0.89	-0.03	-0.04	0.87	-0.02	0.01	-0.11	Retain
Q54	My manager asks for opinions from all work unit members when making decisions.	0.78	0.07	0.00	0.78	0.07	0.01	-0.03	Retain
Q55	My manager actively incorporates different points of view into final decisions.	0.83	-0.01	-0.01	0.82	-0.01	0.02	-0.07	Retain
Q58	My manager welcomes constructive debate among work unit members.	0.70	0.10	0.05	0.74	0.09	-0.02	0.10	Retain
Q59	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	0.96	-0.16	-0.06	0.94	-0.15	-0.01	-0.12	Retain
Q60	My manager encourages all work unit members to collaborate with each other.	0.68	0.17	0.00	0.68	0.17	0.02	-0.03	Retain
Q61	My manager encourages work unit members of diverse backgrounds to exchange ideas.	0.52	-0.05	0.46	0.54	-0.08	0.41	0.09	**Drop** (cross-loadings < .2)
Q62	My manager encourages all work unit members to learn from one another.	0.52	0.19	0.16	0.53	0.18	0.15	0.03	Retain
Q63	My manager respects individual differences in the work unit.	0.09	0.60	0.24	0.16	0.58	0.12	0.27	Retain

	Item	3 Factor Loading			4 Factor Loading				Decision
		Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3	Factor 4	
Q64[a]	My manager values the uniqueness of all work unit members.	0.47	0.29	0.16	0.55	0.26	0.02	0.23	Retain
Q65	My manager values the differences that members of diverse backgrounds bring to the work unit.	0.41	0.05	0.48	0.47	0.01	0.36	0.24	**Drop** (cross-loadings < .2)
Q67	My manager encourages work unit members to be their authentic selves.	0.72	-0.01	0.18	0.73	-0.02	0.15	0.04	Retain
Q68	My manager makes it safe for work unit members to authentically express themselves.	0.53	0.28	0.08	0.53	0.27	0.10	-0.02	Retain
Q69	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	0.57	0.18	0.17	0.60	0.17	0.12	0.09	Retain
Q70	My manager tries to make all members feel like they belong to the work unit.	0.38	0.45	0.15	0.39	0.43	0.14	0.04	**Drop** (cross-loadings < .2)
Q73	My manager implements organizational diversity and inclusion programs in the work unit.	0.09	-0.07	0.83	0.09	-0.11	0.83	0.07	Retain
Q74	My manager implements organizational diversity and inclusion initiatives in the work unit.	0.06	0.04	0.77	0.06	0.00	0.77	0.07	Retain

[a] Although Q64 would be dropped based on the 3 factor solution (cross-loadings < .2), the 4 factor solution suggested to retain it. This item was therefore retained to preserve the highest number of items.

Table 3

Standardized EFA Factor Loadings of 28 ILQ Items

	Item	Factor 1	Factor 2	Factor 3	Decision
Q35	My manager makes training opportunities equally accessible to all work unit members.	**0.80**	-0.03	0.03	Retain
Q37	My manager makes him/herself equally accessible to all work unit members.	**0.69**	0.17	-0.04	Retain
Q38	My manager makes resources equally accessible to all work unit members.	**0.90**	-0.03	-0.08	Retain
Q40	My manager conducts fair performance reviews of work unit members.	**0.74**	0.00	0.14	Retain
Q41	My manager makes recommendations for promotion fairly in the work unit.	**0.43**	0.24	0.19	**Drop** (cross-loadings < .2)
Q42	My manager treats everyone in the work unit fairly.	**0.73**	0.04	0.14	Retain
Q45	My manager listens to all work unit members with respect.	**0.65**	0.23	0.03	Retain
Q47	My manager communicates openly with all work unit members.	**0.64**	0.31	-0.11	Retain
Q63	My manager respects individual differences in the work unit.	**0.68**	0.04	0.23	Retain
Q48	My manager seeks members' input when pursuing work unit goals.	-0.07	**0.82**	0.14	Retain
Q49	My manager encourages diverse inputs from all members to achieve work unit goals.	0.05	**0.71**	0.16	Retain
Q50	My manager encourages work unit members to contribute in their own ways.	0.18	**0.73**	-0.03	Retain
Q52	My manager integrates perspectives from all work unit members.	0.17	**0.61**	0.13	Retain
Q53	My manager encourages everyone in the work unit to participate in decision making.	0.04	**0.86**	-0.06	Retain

	Item	Factor 1	Factor 2	Factor 3	Decision
Q54	My manager asks for opinions from all work unit members when making decisions.	0.03	**0.80**	0.01	Retain
Q55	My manager actively incorporates different points of view into final decisions.	0.04	**0.81**	-0.01	Retain
Q58	My manager welcomes constructive debate among work unit members.	-0.03	**0.84**	0.03	Retain
Q59	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	-0.16	**0.92**	-0.03	Retain
Q60	My manager encourages all work unit members to collaborate with each other.	0.18	**0.68**	-0.01	Retain
Q62	My manager encourages all work unit members to learn from one another.	0.19	**0.53**	0.10	Retain
Q64	My manager values the uniqueness of all work unit members.	0.30	**0.48**	0.14	**Drop** (cross-loadings < .2)
Q67	My manager encourages work unit members to be their authentic selves.	0.08	**0.65**	0.15	Retain
Q68	My manager makes it safe for work unit members to authentically express themselves.	0.38	**0.41**	0.12	**Drop** (cross-loadings < .2)
Q69	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	0.28	**0.50**	0.14	Retain
Q43	My manager reduces biases toward marginalized group members in the work unit.	0.28	0.03	**0.59**	Retain
Q44	My manager confronts both direct and subtle forms of discrimination in the work unit.	0.36	-0.02	**0.50**	Retain
Q73	My manager implements organizational diversity and inclusion programs in the work unit.	-0.07	0.20	**0.74**	Retain
Q74	My manager implements organizational diversity and inclusion initiatives in the work unit.	0.00	0.07	**0.80**	Retain

Principal factor loadings were examined again only on the retained 28 items using the empirically suggested three-factor solution. Standardized EFA factor loadings of the 28 ILQ items on a three-factor solution are presented in Table 3. The results revealed that three items failed to meet one or both of the two criteria (highest loading > or = .35; and cross-loading > .20), and thus were removed from further analysis. They were item 41 ("*My manager makes recommendations for promotion fairly in the work unit*"), item 64 ("*My manager values the uniqueness of all work unit members*"), and item 68 ("*My manager makes it safe for work unit members to authentically express themselves*").

Iteratively, principal factor loadings were examined again only on the retained 25 items using the empirically suggested three-factor solution. The results revealed that all 25 items satisfied both of the two criteria (highest loading > or = .35; and cross-loading > .20). Thus, a total of 25 items were used for factor interpretations and confirmatory factor analysis.

Factor Interpretations and Correlations. The three factors accounted for 69% of the total variance. Table 4 breaks down the three factors and the specific item loadings against their initially proposed theory-based dimensions.

The current research proposed that the first dimension of inclusive leadership is providing equal opportunity and fair treatment to all work unit members. The EFA results revealed a factor including five items related to providing equal opportunity and fair treatment (as proposed) and three items related to respectful inter-personal interactions. Specifically, the three items were Q45 ("*My manager listens to all work unit members with respect*"), Q47 ("*My manager communicates openly with all work unit members*"), and Q63 ("*My manager respects individual differences in the work unit*"). Q45 and Q47 were initially proposed in the dimension of inclusive leaders encouraging integration of and synergy among all work unit members; Q63 was initially

proposed in the dimension of inclusive leaders directly addressing work unit members' needs of belongingness, uniqueness, and authenticity. As a result, factor 1 appears to reflect inclusive leadership behaviors at the individual level related to leaders treating all work unit members with fairness, equality, and respect. This eight-item factor explained 24% of the total variance.

The current research proposed that the second dimension of inclusive leadership is encouraging the integration and synergy of all work unit members. The EFA results revealed a factor including eleven items related to encouraging the integration of synergy among all work unit members (as proposed) and two items that were initially proposed to load on the dimension of inclusive leaders directly addressing work unit members need for uniqueness, belongingness, and authenticity. They were Q67 ("*My manager encourages work unit members to be their authentic selves*") and Q69 ("*My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness*"). It's possible that a manager's encouraging authenticity and belongingness facilitates team level integration and synergy processes. As a result, factor 2 reflects inclusive leadership behaviors at the team level that create the integration of and synergy among all work unit members. This thirteen-item factor accounted 32% of the total variance.

The current research proposed that the third dimension of inclusive leadership is satisfying work unit members' fundamental needs for belongingness, uniqueness and authenticity. The EFA results revealed that though three items related to addressing work unit members' needs for belongingness, uniqueness and authenticity were retained, they loaded on factor 1 (i.e., Q63) and factor 2 (i.e., Q67 and Q69), instead of loading on a unique factor. As a result, the current research does not provide strong evidence that addressing work unit members' fundamental needs for belongingness, uniqueness and authenticity is a unique dimension of inclusive leadership.

The current research proposed that the fourth dimension of inclusive leadership is implementing organizational diversity and inclusion related policies and programs in the work unit. The EFA results revealed a factor including two items related to implementing organization's diversity and inclusion policies and programs (as proposed) and two items related to discrimination (i.e., preventing exclusion) that were initially proposed to load on the dimension of inclusive leaders providing equal opportunities and fair treatment. These latter two items were Q43 ("*My manager reduces biases toward marginalized group members in the work unit*") and Q44 ("*My manager confronts both direct and subtle forms of discrimination in the work unit*"). As a result, factor 3 appears to reflect inclusive leadership behaviors that explicitly enact diversity and inclusion in the work unit either through practices that implement inclusion related organizational programs and/or compliance (with organizational policies, laws) behaviors related to preventing exclusion. This four-item factor accounted 13% of the total variance.

The correlation between factor 1 (i.e., inclusive leadership behaviors at the individual level that treat all work unit members with fairness, equality, and respect) and factor 2 (i.e., inclusive leadership behaviors at the team level that foster integration of and synergy among all work unit members) was .72; the correlation between factor 1 and factor 3 (i.e., inclusive leadership behaviors that explicitly enact diversity and inclusion in the work unit) was .63, and the correlation between factor 2 and 3 was .75. All of these intercorrelations were high enough to indicate that they were tapping into a similar construct, yet low enough that they were not completely overlapping one another (i.e., $r < .80$).

Table 4

Standardized EFA Factor Loadings of 25 ILQ Items against the Proposed Theory-based Dimensions

	Item	Factor 1	Factor 2	Factor 3	Proposed Theory-based Dimension
Factor 1: Inclusive leadership behaviors at individual level that treat all work unit members with fairness, equality, and respect					
Q42	My manager treats everyone in the work unit fairly.	**0.89**	-0.09	0.09	Provide equal opportunity and fair treatment to all work unit members
Q38	My manager makes resources equally accessible to all work unit members.	**0.81**	-0.10	0.08	Provide equal opportunity and fair treatment to all work unit members
Q40	My manager conducts fair performance reviews of work unit members.	**0.74**	0.05	0.10	Provide equal opportunity and fair treatment to all work unit members
Q45[a]	My manager listens to all work unit members with respect.	**0.73**	0.18	-0.04	Encourage integration of and synergy among all work unit members
Q47[a]	My manager communicates openly with all work unit members.	**0.72**	0.27	-0.12	Encourage integration of and synergy among all work unit members
Q63[a]	My manager respects individual differences in the work unit.	**0.71**	0.10	0.12	Directly address all work unit members' fundamental needs for belongingness, uniqueness, and authenticity
Q37	My manager makes him/herself equally accessible to all work unit members.	**0.61**	0.22	-0.05	Provide equal opportunity and fair treatment to all work unit members
Q35	My manager makes training opportunities equally accessible to all work unit members.	**0.60**	0.02	0.19	Provide equal opportunity and fair treatment to all work unit members

	Item	Factor 1	Factor 2	Factor 3	Proposed Theory-based Dimension
Factor 2: Inclusive leadership behaviors at team level that encourage integration of and synergy among all work unit members					
Q59	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	-0.17	**0.90**	0.00	Encourage integration of and synergy among all work unit members
Q55	My manager actively incorporates different points of view into final decisions.	0.02	**0.86**	-0.04	Encourage integration of and synergy among all work unit members
Q53	My manager encourages everyone in the work unit to participate in decision making.	-0.10	**0.83**	0.10	Encourage integration of and synergy among all work unit members
Q48	My manager seeks members' input when pursuing work unit goals.	0.06	**0.81**	0.02	Encourage integration of and synergy among all work unit members
Q58	My manager welcomes constructive debate among work unit members.	0.03	**0.80**	0.02	Encourage integration of and synergy among all work unit members
Q54	My manager asks for opinions from all work unit members when making decisions.	0.01	**0.72**	0.11	Encourage integration of and synergy among all work unit members
Q67[b]	My manager encourages work unit members to be their authentic selves.	0.05	**0.69**	0.10	Directly address all work unit members' fundamental needs for belongingness, uniqueness, and authenticity
Q49	My manager encourages diverse inputs from all members to achieve work unit goals.	0.19	**0.65**	0.10	Encourage integration of and synergy among all work unit members
Q52	My manager integrates perspectives from all work unit members.	0.19	**0.63**	0.09	Encourage integration of and synergy among all work unit members
Q50	My manager encourages work unit members to contribute in their own ways.	0.29	**0.58**	0.06	Encourage integration of and synergy among all work unit members
Q69[b]	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	0.29	**0.57**	0.03	Directly address all work unit members' fundamental needs for belongingness, uniqueness, and authenticity
Q60	My manager encourages all work unit members to collaborate with each other.	0.27	**0.52**	0.06	Encourage integration of and synergy among all work unit members
Q62	My manager encourages all work unit members to learn from one another.	0.20	**0.43**	0.21	Encourage integration of and synergy among all work unit members

	Item	Factor 1	Factor 2	Factor 3	Proposed Theory-based Dimension
Factor 3: Inclusive leadership behaviors that explicitly enact diversity and inclusion in the work unit					
Q73	My manager implements organizational diversity and inclusion programs in the work unit.	-0.09	0.05	**0.90**	Implement organizational diversity and inclusion related policies and programs in the work unit
Q74	My manager implements organizational diversity and inclusion initiatives in the work unit.	0.09	0.10	**0.69**	Implement organizational diversity and inclusion related policies and programs in the work unit
Q43[a]	My manager reduces biases toward marginalized group members in the work unit.	0.24	0.04	**0.64**	Provide equal opportunity and fair treatment to all work unit members
Q44[a]	My manager confronts both direct and subtle forms of discrimination in the work unit.	0.09	0.10	**0.62**	Provide equal opportunity and fair treatment to all work unit members

[a] Items did not load on their proposed dimensions.

Confirmatory Factor Analysis (*CFA*). CFA was conducted on the 25 ILQ items to confirm the structure of the factors using Sample 2 (N = 265). Model fit refers to the ability of a model to reproduce the data and was assessed by examining the model fit indices (Kenny, 2020). The current research used multiple fit indices to assess model fit, including the Chi Square Test (X^2), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Residual (SRMR), Akaike Information Criterion (AIC), and Bayesian Information Criterion (BIC). The chi-square test has been known to be sensitive to sample size (Schumacker & Lomax, 2004), such that it will yield a significant result with large sample sizes (n > 200), indicating a poor model fit. Because of this known issue of sample size affecting the chi-square significance, other types of indices have also been considered when examining model fit (Kenny, 2020). Researchers recommend that a CFI value greater than .90; a TLI value greater than .90; a RMSEA value smaller than .08; and a SRMR value smaller than .08 are considered acceptable fit to the data (Hu & Bentler, 1999; Kenny, 2020; MacCallum, Browne, & Sugawara, 1996). Researchers also recommend that when different models are estimated and compared, the models with the lower AIC and BIC are the better fitting models (Kenny, 2020).

The current research compared five models: a unidimensional model, a three-factor model, a four-factor model, a second order model, and a bifactor model. The unidimensional model assumed inclusive leadership as a single dimensional construct that consisted of 25 indicators. The three-factor model was the EFA suggested model. The four-factor model was the initially proposed theory-based model. The second order model assumed that the reason why the three factors suggested by the EFA existed was that there was another higher order factor of inclusive leadership that these three factors loaded onto. In other words, the 25 items first loaded

on the three factors correspondingly, and then these three factors loaded on a higher order factor, which can be deemed as a full-mediation model. In contrast, the bifactor model allowed the 25 items to load simultaneously on both their corresponding three specific factors and a general factor. The general factor reflects what is common among all items (e.g., a common trait – inclusive leadership), whereas the specific factors (e.g., a primary sub-trait – treating work unit members with fairness, equality, and respect) explains the unique item variance not accounted by the general factor. Theoretically, the bifactor model allows one to directly explore the extent to which items reflect a common target trait and the extent to which they reflect a primary sub-trait (Reise, Moore, & Haviland, 2010). Statistically, the bifactor analysis can help to determine whether a total score or a sub-scale is more suitable when using the instrument (Brewster, Hammer, Sawyer, Eklund, & Palamar, 2016).

The fit indices for each of the five models on the 25 ILQ items were examined (see Table 5). The results indicated that the unidimensional model failed to meet the thresholds of acceptable model fit. The three-factor model, four-factor model, second order model, and bifactor model demonstrated decent model fits, among which, the bifactor model had the best model fit statistics: χ^2 (250) = 412.095, $p < .01$; RMSEA = .049, 90% CI [.041, .058]; SRMR = .029; TLI = .965; CFI = .971; AIC =14643.655; and BIC = 14912.135. Factor loadings for the bifactor model (a general factor and three specific factors) are presented in Table 6.

Table 5

Model Comparison on 25 ILQ Items

	Unidimensional Model	3 Factor Model	4 Factor Model	Second Order Model	Bi-factor Model
Chisq (df)	964.662 (275)	550.543 (272)	767.066 (269)	587.310 (272)	412.095 (250)
RMSEA	0.097	0.062	0.084	0.066	0.049
90% CI	[0.091, 0.104]	[0.055, 0.070]	[0.077, 0.091]	[0.059, 0.073]	[0.041, 0.058]
SRMR	0.054	0.040	0.051	0.038	0.029
CFI	0.877	0.950	0.911	0.949	0.971
TLI	0.866	0.945	0.901	0.944	0.965
AIC	15146.222	14738.103	14960.626	14088.247	14643.655
BIC	15325.208	14927.829	15161.090	14277.973	14912.135

Table 6

Bifactor Model Standardized Factor Loadings of 25 ILQ Item

Loading	Dimension		25 ILQ Items	Dimension	Loading
0.30	Factor 1	Q35	My manager makes training opportunities equally accessible to all work unit members.	General	0.70
0.52	Factor 1	Q37	My manager makes him/herself equally accessible to all work unit members.	General	0.69
0.49	Factor 1	Q38	My manager makes resources equally accessible to all work unit members.	General	0.65
0.29	Factor 1	Q40	My manager conducts fair performance reviews of work unit members.	General	0.81
0.42	Factor 1	Q42	My manager treats everyone in the work unit fairly.	General	0.79
0.38	Factor 1	Q45	My manager listens to all work unit members with respect.	General	0.79
0.39	Factor 1	Q47	My manager communicates openly with all work unit members.	General	0.75
0.29	Factor 1	Q63	My manager respects individual differences in the work unit.	General	0.82

Loading	Dimension		25 ILQ Items	Dimension	Loading
0.36	Factor 2	Q48	My manager seeks members' input when pursuing work unit goals.	General	0.91
0.08	Factor 2	Q49[a]	My manager encourages diverse inputs from all members to achieve work unit goals.	General	0.96
0.14	Factor 2	Q50	My manager encourages work unit members to contribute in their own ways.	General	0.90
0.21	Factor 2	Q52	My manager integrates perspectives from all work unit members.	General	0.86
0.42	Factor 2	Q53	My manager encourages everyone in the work unit to participate in decision making.	General	0.89
0.43	Factor 2	Q54	My manager asks for opinions from all work unit members when making decisions.	General	0.84
0.46	Factor 2	Q55	My manager actively incorporates different points of view into final decisions.	General	0.82
0.34	Factor 2	Q58	My manager welcomes constructive debate among work unit members.	General	0.90
0.36	Factor 2	Q59	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	General	0.85
0.02	Factor 2	Q60[a]	My manager encourages all work unit members to collaborate with each other.	General	0.81
-0.06	Factor 2	Q62[a]	My manager encourages all work unit members to learn from one another.	General	0.86
0.04	Factor 2	Q67[a]	My manager encourages work unit members to be their authentic selves.	General	1.00
-0.04	Factor 2	Q69[a]	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	General	0.98
0.44	Factor 3	Q43	My manager reduces biases toward marginalized group members in the work unit.	General	0.87
0.43	Factor 3	Q44	My manager confronts both direct and subtle forms of discrimination in the work unit.	General	0.84
0.51	Factor 3	Q73	My manager implements organizational diversity and inclusion programs in the work unit.	General	0.82
0.55	Factor 3	Q74	My manager implements organizational diversity and inclusion initiatives in the work unit.	General	0.82

[a] Item loading is not significant on the specific factor.

Model-based internal consistency. To determine whether it was appropriate to calculate and interpret total and/or subscale scores for the ILQ, model-based internal consistency statistics were examined (Dueber, 2017; see Table 7). ECV (S&E) is the explained common variance by the factor relative to all explained variance of all items (Stuckey & Edelen, 2015). In the current research, the general factor explained 84.6% of the total variance. The specific factor 1 explained 5.9% of the total variance, specific factor 2 explained 4.9% of the total variance, and specific factor 3 explained 4.5% of the total variance. Thus, the general factor explained the majority of the common variance compared to the variance explained by the three specific factors.

Omega is the model-based estimate of internal reliability of the multidimensional composite (Dueber, 2017). For the general factor, all items were considered; for specific factors, only items loading on that factor were considered (Dueber, 2017). In the current research, the model-based estimate of the internal reliability of the general factor was .98, and the model-based estimate of the internal reliabilities were .94 for factor 1, .97 for factor 2, and .90 for factor 3. Thus, both general and specific factors indicated high model-based internal reliability.

Omega Hierarchical (OmegaH) is the percentage of systematic reliable variance of total score that can be attributed to the general factor (Rodriguez, Reise, & Haviland, 2016). Omega Hierarchical Subscale (OmegaHS) is the proportion of reliable systematic variance of a subscale score after partitioning out variability attributed to the general factor (Reise, Bonifay, & Haviland, 2013). Reise et al. (2013) recommend that OmegaH values above .75 indicate a single general factor despite the presence of multidimensionality across items, which in turn would permit researchers to interpret the total score as a sufficiently reliable and appropriate measure of the general construct. OmegaHS (subscale) values below .50 indicate that the majority of the subscales' variance can be attributed to the general factor and that negligible unique variance is

due to the subscale factor, such that calculating and interpreting subscale scores as measures of the narrower subdomain construct could be misleading (Brewster et al., 2016). In the current research, OmegaH was .94 > .75 and OmegaHS (subscale) was .20 for factor 1, .05 for factor 2, and .23 for factor 3 (all OmegaHS < .50). Thus, the model-based reliability analyses provided support for the use of the ILQ total score to represent the general inclusive leadership construct.

Relative omega is the OmegaH divided by Omega (Dueber, 2017). For the general factor, it is the percentage of reliable variance in the multidimensional composite due to the general factor. For the specific factors, it is the proportion of reliable variance in the subscale composite that is independent of the general factor (Dueber, 2017). In the current research, 95.4% of reliable variance in the multidimensional inclusive leadership construct was due to the general factor. In factor 1, 20.8% reliable variance was independent from the general factor; 5.4% reliable variance in factor 2 was independent from the general factor, and 25.1% reliable variance in factor 3 was independent from the general factor. Thus, inclusive leadership was a multidimensional construct with a dominant general factor that explained the majority of the reliable variance, and among the three specific factors, factor 3 explained the most unique reliable variance.

Table 7

Bifactor Model-based Internal Consistency

	ECV (S&E)	Omega/OmegaS	OmegaH/OmegaHS	Relative Omega
General Factor	0.846	0.981	0.936	0.954
Specific Factor 1	0.059	0.942	0.196	0.208
Specific Factor 2	0.049	0.969	0.052	0.054
Specific Factor 3	0.045	0.903	0.227	0.251

Reliability

To ensure the integrity of each of the three factors of the Inclusive Leadership Questionnaire, evidence of internal consistency reliability was sought by calculating the Cronbach's alphas of each factor as well as the overall ILQ using the whole sample (N = 529). The alpha for the overall ILQ was .97; for factor 1 (inclusive leadership behaviors at the individual level; treating all work unit members with fairness, equality, and respect) it was .94; .96 for factor 2 (inclusive leadership behaviors at the team level; creating the integration of and synergy among all work unit members), and .88 for factor 3 (inclusive leadership behaviors explicitly enacting diversity and inclusion in the work unit) (see Table 8). Dropping items would not improve the alphas for the overall ILQ or for each of the three factors. The results indicated excellent internal consistencies for all factors and for the overall construct measure. In addition, the bivariate correlations and descriptive statistics for the three factors and overall measure are also presented in Table 8.

Table 8

Bivariate Correlations, Descriptive Statistics, and Cronbach's Alphas

Variable	Mean	SD	ILQ	Factor 1	Factor 2	Factor 3
ILQ	3.72	.85	(.97)			
Factor 1	3.98	.88	.91**	(.94)		
Factor 2	3.63	.90	.97**	.81**	(.96)	
Factor 3	3.51	1.00	.84**	.69**	.77**	(.88)

Note. Reliabilities are on the diagonal (in parentheses).
** Correlation is significant at the .01 level (2-tailed).

Convergent Validity

To establish the convergent validity of the Inclusive Leadership Questionnaire (ILQ), the ILQ should be highly correlated with existing measures of inclusive leadership as well as other conceptually similar constructs. Specifically, the current research examined the correlation

between the ILQ and Nembhard and Edmondson's (2006) leader inclusiveness measure, one of the most frequently used inclusive leadership measures in the literature. These two scales were highly correlated, $r(527) = .85$, $p < .001$. In addition, since participative leadership is conceptually related to inclusive leadership as both leadership styles involve followers in decision making and problem solving, the correlation between ILQ and participative leadership was also examined, $r(527) = .83$, $p < .001$. Lastly, the correlation between the ILQ and the one item measure of inclusive leadership ("My manager is an inclusive leader") was also examined $r(527) = .80$, $p < .001$. These high correlations provide strong support for the convergent validity of the ILQ.

Discriminant Validity

To establish the discriminant validity of the Inclusive Leadership Questionnaire, the ILQ should be unrelated to constructs that are conceptually dissimilar. Specifically, the current research examined the correlation between the ILQ and two of the Big-five personality dimensions (extraversion and agreeableness) to establish its discriminant validity, as research finds particularly low correlations between leader inclusiveness and these two personality dimensions (Chung et al., 2020). The results indicated low correlations between the ILQ and extraversion, $r(527) = .18$, $p < .001$, and between the ILQ and agreeableness, $r(527) = .28$, $p < .001$. Given that agreeableness was not a very reliable measure (alpha = .56), its low correlation with the ILQ should be carefully interpreted. In addition, the current research also examined the correlation between the ILQ and participants' enjoyment of nature, $r(527) = .16$, $p < .001$, as this construct and inclusive leadership are also conceptually dissimilar. Thus, the low correlations provided strong support for the discriminant validity of the ILQ.

Concurrent Criterion Validity

To establish the concurrent criterion-related validity of the Inclusive Leadership Questionnaire, the ILQ should significantly predict measures of theoretically based outcomes that are likely to follow from inclusive leadership. The current research conducted simple regression analyses to examine the relationship between the ILQ and employee helping behavior as well as the relationship between the ILQ and employee innovative behavior as these two outcomes are the most frequently examined outcomes of inclusive leadership in the literature (e.g., Randel et al., 2016; Choi et al., 2017). In addition, the current research also examined the relationship between the ILQ and perceptions of work unit inclusion, as literature suggests leader inclusiveness is a predictor of work group inclusion (e.g., Chung et al., 2020). The results revealed that participants who perceived their manager to be more inclusive, also perceived a higher degree of work unit inclusion, $b = .75$, $R^2 = .57$, $F(1, 527) = 694.79$, $p < .001$, and reported a higher involvement in both innovative behavior, $b = .43$, $R^2 = .18$, $F(1, 527) = 112.92$, $p < .001$, and helping behavior, $b = .43$, $R^2 = .20$, $F(1, 527) = 134.72$, $p < .001$. Thus, the significant coefficients on the proximal outcome of work unit inclusion as well as on the more distal outcomes of innovative behavior and helping behavior provide support for the concurrent criterion validity of the ILQ.

Incremental Validity

To establish the incremental validity of the Inclusive Leadership Questionnaire, the ILQ should increase predictive ability beyond that provided by other inclusive leadership measures. In other words, the ILQ should explain more variance in theoretically based outcomes of inclusive leadership than other inclusive leadership measures. Specifically, Nembhard and Edmondson's (2006) measure of inclusive leadership was first regressed on work unit inclusion,

employee innovative behavior, and helping behavior respectively, and then the ILQ was added into each model. The change in R square for work unit inclusion was .11, $F(1, 526) = 132.11$, $p < .001$. The change in R square for employee innovative behavior was .08, $F(1, 526) = 53.29$, $p < .001$. The change in R square for employee helping behavior was .09, $F(1, 526) = 58.88$, $p < .001$. Thus, the positive and significant changes in R square provided support for the incremental validity of the ILQ. In addition, the current research reversed the regression analysis in order to examine the incremental validity of the inclusive leadership measure in the literature (e.g., Nembhard & Edmondson, 2006) beyond the ILQ. Specifically, the ILQ was first regressed on work unit inclusion, employee innovative behavior, and helping behavior respectively, and then the Nembhard and Edmondson's (2006) measure of inclusive leadership was added to these models. The change in R square for work unit inclusion was .01, $F(1, 526) = 8.67$, $p < .001$. The change in R square for employee innovative behavior was .01, $F(1, 526) = 3.92$, $p < .05$. The change in R square for employee helping behavior was .00, $F(1, 526) = 3.29$, $p > .05$. Thus, the ILQ demonstrated larger incremental validity in predicting outcomes than the most frequently used measure of inclusive leadership in the literature (e.g., Nembhard & Edmondson, 2006).

CHAPTER 5: DISCUSSION

The current research highlighted the limitations of previous measures of inclusive leadership, conceptualized a theory-based, multi-dimensional construct of inclusive leadership, and developed an empirically valid measure of inclusive leadership. Based on the literature review of inclusion and inclusive leadership, the current research proposed that inclusive leadership is a multi-dimensional construct that comprises four dimensions. Specifically, inclusive leadership was hypothesized to include: providing equal opportunity and fair treatment to all work unit members; encouraging integration of and synergy among all work unit members; directly addressing all work unit members' fundamental needs for belongingness, uniqueness, and authenticity; and implementing organizational diversity and inclusion related policies and programs in the work unit.

A measure was developed based on the literature and administered to a large MTurk sample (N = 529). First, this large sample was randomly split into two sample groups. Using sample 1, EFA results revealed a three-factor internal structure of inclusive leadership. Results indicated that inclusive leaders treat all work unit members with fairness, equality, and respect at the individual level; encourage integration of and synergy among all work unit members at the team level; and explicitly enact diversity and inclusion in the work unit. Using sample 2, CFA results confirmed a bifactor model (one general factor and three specific sub factors) indicating that inclusive leadership is a multi-dimensional construct with a dominant general factor of inclusive leadership explaining the majority of the reliable variance.

These results suggest that it is appropriate to use the Inclusive Leadership Questionnaire (ILQ) total score to represent the general inclusive leadership construct. However, the results also confirmed that inclusive leadership is a multi-dimensional construct, but rather than the four

dimensions that were anticipated, analyses revealed three dimensions. In general, these leadership behaviors clustered in ways that are consistent with diversity and inclusion related research concepts of fairness, discrimination, integration, and synergy (Dwertmann et al., 2016; Nishii, 2013; Shore et al., 2018; Randel et al., 2018). However, leadership behavior groupings were slightly different from the literature and hypotheses.

Consistencies with the Literature

Study results revealed a factor that describes inclusive leadership at the individual level. Inclusive leaders treat work unit members with fairness, equality, and respect. This dimension is consistent with previous research suggesting that inclusive leaders provide both members of socially marginalized groups and non-marginalized groups with equal opportunities as well as fair treatment to ensure justice and equality (Nishii, 2013; Randel et al., 2018; Shore et al., 2018). For example, Nishii (2013) suggests that inclusion requires providing equal and fair human resources practices. These behaviors are consistent with the behaviors that loaded on this factor in the current research (e.g., "*My manager conducts fair performance reviews of work unit members*", "*My manager makes training opportunities equally accessible to all work unit members*").

A second factor captures inclusive leadership at the team level. Inclusive leaders create integration of and synergy among all work unit members. This dimension contains the most items and is consistent with previous research suggesting that inclusive leaders seek out and integrate diverse perspectives and contributions in decision-making and problem-solving (Nembhard & Edmondson, 2006; Nishii, 2013), and encourage constructive debates and learning among work unit members to realize synergistic team outcomes (Dwertmann et al., 2016). Leadership behaviors that loaded on this factor (e.g., "*My manager integrates perspectives from*

all work unit members" and "*My manager encourages all work unit members to learn from one another*") are consistent with organizational behaviors in inclusive organizations that adopt an "integration and learning" diversity paradigm. This paradigm acknowledges and values differences and advocates for the integration of these differences for the increased functioning of the organization (Ely & Thomas, 2001).

The third factor captures the role of inclusive leadership in translating the organization's diversity and inclusion policies and programs into work unit' diversity and inclusion practices. Inclusive leaders, as agents of the organization, explicitly enact diversity and inclusion in their work units (e.g., "*My manager implements organizational diversity and inclusion programs in the work unit*"). This dimension is consistent with previous research suggesting that lower level managers translate and implement organization's diversity and inclusion policies and programs in their units that realize the organization's diversity and inclusion mission and strategy (Kulik, 2014; Shore et al., 2018).

Differences with the Literature

Unlike previous diversity related research that conceives of *fairness and discrimination* as intimately related (Dwertmann et al., 2016), the current research found that inclusive leaders' *fairness* (i.e., provide equal opportunity and fair treatment) was differentiated from perceptions about their orientation around discrimination (i.e., reduce discrimination and prevent exclusion). In other words, the current study revealed that fairness and discrimination were two unique dimensions; loading on the first and third factor respectively. One explanation could be that leaders' fairness (e.g., "*My manager conducts fair performance reviews of work unit members*" and "*My manager makes resources equally accessible to all work unit members*") focuses on human resources and general managerial practices, whereas their orientation around

discrimination (e.g., "*My manager reduces biases toward marginalized group members in the work unit*" and "*My manager confronts both direct and subtle forms of discrimination in the work unit*") explicitly measures the diversity and inclusion specific practices.

The current research revealed that part of factor 1 also included the fact that inclusive leaders communicate with respect (e.g., listening with respect, communicating openly, respecting individual differences) in the course of providing equal opportunities and fair treatment. However, these behaviors were originally conceived of as loading on different factors. Behaviors of listening with respect and communicating openly were originally conceived of as facilitating integration and synergy in the work unit (i.e., "*My manager listens to all work unit members with respect*", "*My manager communicates openly with all work unit members*"); behavior of respecting individual differences was conceived of as satisfying the need for uniqueness, belongingness, and authenticity (i.e., "*My manager respects individual differences in the work unit*"). Instead of loading on their proposed factors, these "respect" related items loaded on the factor that inclusive leaders treat all work unit members with fairness and equality. Ensuring justice and equity demonstrates fair treatment of group members and indicates to members that they are a respected part of the group (Randel et al., 2018). When employees perceive an equal and fair distribution of resources, they regard themselves as normative group members who are respected (Nishii, 2013). This may explain why these "respect" related items loaded together with "fairness and equity" related items.

While the current research expected leadership behaviors directly addressing work unit members' needs for belongingness, uniqueness, and authenticity to load on a separate factor, these behaviors instead loaded on the first two factors (i.e., treating work unit members with fairness, equality, and respect; creating integration of and synergy among work unit members).

Specifically, behavior of respecting individual differences in the work unit loaded on the first factor, along with other behaviors of communicating with respect, as explained in the previous paragraph. Behaviors of creating an atmosphere in which all work unit members feel a sense of belongingness and encouraging work unit members to be their authentic selves loaded on the second factor. There are a couple of explanations for why these needs related items loaded on factors 1 and 2. Leadership behaviors captured by factor 1 (e.g., ensuring justice and equity) and factor 2 (e.g., encouraging diverse contributions, sharing decision-making) may facilitate group members' feeling of belongingness and satisfy their needs for uniqueness (Randel et al., 2018). In other words, addressing fundamental needs are perhaps components of factors 1 and 2. Alternatively, rather than components of factors 1 and 2, the three items conceived of as addressing work unit members' fundamental needs for uniqueness, belongingness, and authenticity may instead be outcomes of inclusive leadership behaviors captured by factors 1 and 2.

Supplementary analyses were conducted to explore how the three "needs fulfilling" items are related to the inclusive leadership construct. Confirmatory factor analysis was conducted without the three needs based items (22 items in total). The bifactor model with the needs based items, as presented in the results section, had good model fit statistics: χ^2 (250) = 412.095, p < .01; RMSEA = .049, 90% CI [.041, .058]; SRMR = .029; TLI = .965; CFI = .971; AIC =14643.655; and BIC = 14912.135. The bifactor model without the needs based items also demonstrated decent model fit statistics: χ^2 (187) = 334.864, p < .01; RMSEA = .055, 90% CI [.045, .064]; SRMR = .030; TLI = .961; CFI = .968; AIC =13104.003; and BIC = 13340.265. Comparing the two models, the bifactor model with the needs based items demonstrated lower RMSEA and SRMR (indicating a better fit); higher CFI and TLI (indicating a better fit); but

higher AIC and BIC (indicating a worse fit). Thus, the model comparison did not provide conclusive evidence regarding which model is better. However, the current research provides strong evidence that: 1) leadership behaviors directly addressing work unit members fundamental needs for uniqueness, belongingness, and authenticity do not load on a unique inclusive leadership factor; and 2) given the cross sectional nature of the data, there is no definitive evidence indicating whether these needs based items are a part of, or an outcome of, the inclusive leadership construct.

Lastly, the third factor of inclusive leadership, was expected to capture leaders' implementation of organizational diversity and inclusion related policies and programs to work unit level practices. However, this factor, also included leadership behaviors related to reducing biases toward marginalized group members and confronting both direct and subtle forms of discrimination, both of which were proposed to load on the fairness and equity factor. The fact that discrimination related items also loaded on this factor, might be understood if these behaviors reflect leaders' compliance with the law and related organizational policies to "do no harm". Reducing bias and addressing discrimination at the unit level could be conceived of as leadership practices that translate and enact organizational diversity and inclusion related policies designed to avoid harm (e.g., Edelman, Fuller, & Mara-Drita, 2001). Moreover, compared to the first two factors, this third factor explicitly focuses on leadership behaviors addressing diversity and inclusion related issues. Specifically, inclusive leaders promote inclusion (i.e., implement organizational diversity and inclusion related policies and programs) (e.g., Kulik, 2014) and prevent exclusion (i.e., comply with the law and organizational policies related to discriminations) (e.g., Melaku, Beeman, Smith, & Johnson, 2020; Shore et al., 2018).

Mean Differences among the Three Factors

Though related, each of the three factors captures slightly different inclusive leadership behaviors. Supplementary analyses were conducted on the three sub-scales of inclusive leadership to examine whether there are mean differences among the three factors. Within-subjects multivariate test (repeated measures) indicated mean differences among the three sub-scales, $\Lambda = .65$, $F(2, 527) = 139.71$, $p < .001$. Specifically, participants rated their managers significantly lower on leadership behaviors related to creating integration of and synergy among work unit members ($M = 3.63$, $SE = .04$) than leadership behaviors related to treating work unit members with fairness, equality, and respect ($M = 3.98$, $SE = .04$), $F(1, 528) = 218.01$, $p < .001$. Moreover, participants rated their managers significantly lower on leadership behaviors that explicitly enact diversity and inclusion ($M = 3.51$, $SE = .04$) than leadership behaviors that create integration and synergy among work unit members ($M = 3.63$, $SE = .04$), $F(1, 528) = 19.55$, $p < .001$. These results suggest that most managers demonstrated a decent level of inclusive leadership behaviors related to providing equal opportunities and fair treatment with respect. Fewer managers demonstrated leadership behaviors related to creating integration and synergy in the work unit. Even fewer managers were engaged in behaviors that explicitly enact diversity and inclusion in their work units by implementing and complying with organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion. While the current study cannot address the reasons for these differences, possible roadblocks preventing leaders from engaging in inclusive leadership behaviors of explicitly enacting diversity and inclusion could be: “not feeling it is part of the job”, “not feeling it is valued at the company”, “not having the time to enact”, “not having the resources or guidelines on how to enact”, “not having the skills to enact”, “not feeling the behavior could

benefit individual and/or team performance", "afraid of harming work relationships", and "not feeling the behavior is aligned with their personal values".

Supplementary analyses were also conducted, on the overall ILQ and its three sub-scales, to examine whether there are mean differences between male and female participants as well as between Whites and members of racial minority groups (i.e., African American or Black, Asian or Asian American, Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and Other). The results of an ANOVA indicated no significant mean differences between male and female participants on the overall ILQ, $F(1, 526) = .04$, $p = .84$. The results of a MANOVA indicated no significant mean differences between male and female participants on the three sub-scales of the ILQ, $\Lambda = .99$, $F(3, 524) = 1.41$, $p = .24$. Similarly, the results of an ANOVA indicated no significant mean differences between Whites and racial minority group members on the overall ILQ, $F(1, 527) = 1.81$, $p = .18$. The results of a MANOVA indicated no significant mean differences between Whites and members of racial minority groups on the three sub-scales of the ILQ, $\Lambda = .99$, $F(3, 525) = 1.87$, $p = .13$. However, a close review of the group means indicated that members of racial minority groups rated their managers significantly higher on demonstrating leadership behaviors that explicitly enact diversity and inclusion ($M = 3.65$, $SE = .08$) than Whites ($M = 3.45$, $SE = .05$), $F(1, 528) = 4.67$, $p < .05$. This may suggest that compared to Whites, racial minority group members may be more inclined to recognize and value leadership behaviors that explicitly enact diversity and inclusion; implementing and complying with organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion. Alternatively, leaders may be more inclined to explicitly enact diversity and inclusion when interacting with racial minority group members than with Whites.

Theoretical Implications

The current research contributes to the inclusive leadership literature by addressing what inclusive leadership is and how best to measure it.

First, compared to existing measures of inclusive leadership, the ILQ captured the full scope of the inclusive leadership domain based on a review of the relevant literature. For example, previous diversity related research suggested that leaders of all levels play critical roles in realizing an organization's diversity and inclusion mission and strategy by implementing organizational diversity and inclusion related policies and programs (Kulik, 2014; Mor Barak, 2015). Immediate supervisors translate and disseminate information about new strategies initiated by senior leaders (Berson & Avolia, 2004), and foster an inclusive work unit by complying with organizational diversity and inclusion related policies, implementing organizational diversity and inclusion related programs, and preventing exclusion (Shore et al., 2018). However, none of the existing measures of inclusive leadership (i.e., Carmeli et al., 2010; Nembhard & Edmondson, 2006) have examined the role that immediate supervisors play in complying with and implementing organizational diversity and inclusion related policies and programs that explicitly promote inclusion and prevent exclusion. The current research provided evidence suggesting that explicitly enacting diversity and inclusion in the work unit (i.e., implementing and complying with organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion) is a unique dimension of inclusive leadership. Specifically, this dimension explained the most unique reliable variance independent from the general factor of inclusive leadership and demonstrated the lowest correlation with the existing leader inclusiveness measure (i.e., Nembhard & Edmondson, 2006) compared to the

other two dimensions (i.e., treating all work unit members with fairness, equality, and respect; creating integration of and synergy among all work unit members).

Additionally, the most recent conceptualization of inclusive leadership is facilitating group members perceived belongingness while maintaining their uniqueness within the group (Randel et al., 2018). In a similar but slightly different vein, Jansen et al. (2014) conceptualized inclusion as satisfying group members' needs for belonging and authenticity. None of the existing measures *directly* measures inclusive leadership behaviors addressing employees' fundamental needs for belongingness, uniqueness, and authenticity. The current measure included items directly measuring the extent to which leaders value individual uniqueness, encourage work unit members to be their authentic selves, and facilitate employees' feelings of belongingness in the work unit. The current research also found nascent evidence suggesting that leadership behaviors directly addressing work unit members' fundamental needs for belongingness, uniqueness, and authenticity are components of other inclusive leadership factors (i.e., treating work unit members with fairness, equality, and respect; creating integration of and synergy among work unit members). Moreover, study results suggest that leadership behaviors addressing work unit members' fundamental needs for authenticity are different from leadership behaviors addressing work unit members fundamental needs for uniqueness. Leadership behaviors respecting individual differences (uniqueness) loaded on the factor of treating work unit members with fairness, equality, and respect, whereas leadership behaviors encouraging work unit members to be their authentic selves (authenticity) loaded on the factor of creating integration of and synergy among work unit members. This suggests that uniqueness emphasizes leadership behaviors that respect and value individual differences, whereas authenticity is related to leadership behaviors that allow individuals to be themselves regardless of whether they are

similar to or different from others. Previous research and inclusive leadership measures have not fully explored how both uniqueness and authenticity are related to inclusive leadership.

Third, the current research provides some insight into how inclusive leadership addresses status and power differences in the work unit. Inclusive leaders treat all work unit members, regardless of their status and power, with fairness, equality, and respect. Inclusive leaders foster integration of and synergy among all work unit members by including others in discussions and decisions by seeking diverse inputs, integrating different perspectives, encouraging learning and collaboration, and welcoming constructive debates. In this way, inclusive leaders encourage all employees, even those with lower status and less power, to have a voice and share their perspectives. Finally, inclusive leaders implement organizational diversity and inclusion related programs and address potential negative outcomes associated with status and power differences (e.g., discrimination) by reducing biases toward marginalized group members and confronting both direct and subtle forms of discrimination.

Fourth, the current research developed a behavior-based measure of inclusive leadership and generated questions with the consistent referent, "all work unit members", to make sure that responses reflect how the leader interacts with the work unit as a whole, as inclusive leadership is particularly relevant in teams with status and power differences (Nembhard & Edmondson, 2006). This is in contrast to existing inclusive leadership measures in the literature. In existing measures, the referent of items vary both within and across measures, raising serious questions about their reliability and validity (Arthur & Boyles, 2007; Perry & Li, 2019b). For example, in Carmeli et al.'s (2010) measure of inclusive leadership, while some items ask respondents about their personal experience with the leader (e.g., "the manager is ready to listen to *my* requests"), other items ask how the leader treats all group members (e.g., "the manager is an ongoing

'presence' in this *team* -- someone who is readily available"). The current research deliberately developed items that kept referents consistent unlike previous measures.

Lastly, few authors of the existing measures of inclusive leadership provide evidence of different forms of validity and reliability associated with their measures (e.g., Nembhard & Edmondson, 2006), and some of the information provided is inconsistent with the authors' own assumptions. For example, Carmeli et al. (2010) conceptualized a three-dimensional construct of inclusive leadership demonstrating openness, availability, and accessibility. However, the researchers' factor analytic results indicated a one factor solution. In contrast, the current research developed and validated a theory-based and empirically valid measure of inclusive leadership by providing strong evidence of the content, construct, convergent, discriminant, concurrent criterion, and incremental validities and reliability of the Inclusive Leadership Questionnaire (ILQ).

Practical Implications

This behavior-based, theoretically and empirically valid measure of inclusive leadership can help practitioners quantify and address inclusion with the same rigor that companies use for other critical business topics such as performance and organizational health. Specifically, the inclusive leadership questionnaire can be used to identify inclusive leadership behavioral benchmarks, diagnose leaders' current practices, and serve as a roadmap for where behavioral changes may be required and most beneficial. The widespread use of this measure may contribute to the creation of an inclusive and diverse workplace by developing inclusive leaders.

Given that inclusive leadership is a multi-dimensional construct with a dominant general factor that explained the majority of the reliable variance, it is appropriate to use the ILQ total score to assess inclusive leadership behaviors in the workplace and examine the relationships

between inclusive leadership and other work related processes and outcomes. Specifically, practitioners could use the overall ILQ score to get an overall picture of a particular leader's inclusive leadership compared to their peers. Moreover, practitioners can use the overall ILQ score to evaluate how and when inclusive leadership is more effective compared to other leadership styles. Lastly, practitioners can use the overall ILQ score to evaluate how impactful inclusive leadership is on organization health and business performance.

Additionally, given that inclusive leadership consists of three dimensions of leadership behaviors, and that leaders evaluated in the current research demonstrated different levels of engagement in the three dimensions of inclusive leadership, the three sub-scales of ILQ may also be worth examining and interpreting along with the ILQ total score. Specifically, practitioners could use the three sub-scales to collect more detailed information about different dimensions of leader inclusiveness behaviors that could help provide more accurate diagnoses about leaders' areas of strengths and needs for coaching and development. Based on these diagnoses, capability building initiatives (e.g., training, coaching) could be deliberately designed to target the areas of development for different leaders. For example, leaders rated low on explicitly enacting diversity and inclusion in their work units (i.e., implementing and complying with organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion) could be coached to 1) become familiar with the organization's diversity and inclusion related strategies, policies and programs, 2) take unconscious bias training to be aware of personal and systemic biases in the workplace, and 3) adopt bystander interventions to learn actionable strategies for proactive discrimination prevention (e.g., Katz, 2018; Schulte, 2018; Scully & Rowe, 2009). Lastly, the ILQ could be used to ensure that performance evaluation and

promotion criteria reflect all three components of the inclusive leadership and reward systems employed to reinforce these behaviors.

Limitations and Future Research

The current research has several limitations. First of all, the majority of the study sample was White/Caucasian (71.3%). Although this reflects the composition of the U.S. population, the results represent the dominant group members' perceptions and experiences of inclusive leadership. Given that different racial group members may have different understandings of inclusion and inclusive leadership and that the current research found preliminary evidence that racial minority group members perceived their leaders as explicitly enacting diversity and inclusion in their work units (i.e., implementing and complying with organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion) to a greater extent than Whites, future research should assess whether the measure developed in this study comports with conceptualizations of inclusive leadership held by individuals in a more balanced sample of White and minority racial group members.

Additionally, the current sample included people living in the U.S. over 18 years of age who were currently working. Tang et al. (2015) explored the concept of inclusion in the Chinese context, "*Bao Rong*", using interview data from managers and employees of 12 companies with various ownership structures. They found similarities between Chinese and Western conceptions of inclusion, such as inclusive teamwork, communication, decision-making, fair treatment, and supportive leadership. However, consistent with the collectivistic and reciprocal culture of China that emphasizes social harmony (Tang et al., 2015), the authors also found some uniquely Chinese characteristics associated with inclusive leadership such as tolerance, (e.g., tolerating different ideas and forgiving mistakes) and inclusive adaptation (e.g., adapting to the

organization). Given that inclusive leadership behaviors may be interpreted differently in different countries and cultures, future research should use an international sample to assess whether the ILQ is interpreted comparably across cultures.

Thirdly, the current measure was explicitly developed to focus on the inclusive leadership behaviors of immediate supervisors. A next step would be to determine whether and how the measure would need to be modified in order to assess senior leaders' inclusiveness.

Fourthly, the current measure was explicitly developed to be completed by subordinates of the target leader. A next step would be to modify the measure to assess leaders' inclusiveness from different stakeholder perspectives (e.g., peers, self-reports).

Fifthly, the current research revealed that leadership behaviors directly addressing work unit members' needs for belongingness, uniqueness, and authenticity loaded on the first two factors (i.e., treating work unit members with fairness, equality, and respect; creating integration of and synergy among work unit members), rather than loading on a unique dimension. The current research cannot definitively address how items related to addressing fundamental needs are related to the inclusive leadership construct; whether they are components of factors 1 and 2 or outcomes of these factors. Future research should further examine the relationships between the needs fulfilling leadership behaviors (e.g., "*My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness"*) and the inclusive leadership construct.

Lastly, the current research examined the internal consistency for the overall ILQ and for each of the three sub-scales. Future research should examine the test-retest reliability of the ILQ to assess its temporal stability. The current research established different forms of validities for ILQ (i.e., content, construct, convergent, discriminant, concurrent criterion, and incremental

validities) at the individual level. Future research should establish these validities at the team level as inclusive leadership is particularly relevant in teams (e.g., Mitchell et al., 2015) and the ILQ was designed to ensure that individual scores can be aggregated to the work unit level to obtain work unit level collective perceptions of a leader's inclusiveness. While the current research established a theory-based measure of inclusive leadership and examined its concurrent criterion validity, future research should apply this measure in the context of a theory based model of inclusive leadership in order to assess the measure's predictive value (e.g., examining the direct and indirect effects of inclusive leadership on work related outcomes in various contexts at different levels using longitudinal data with multiple response sources), thereby extending the literature on inclusive leadership and providing additional evidence for the integrity of the ILQ.

Conclusion

Increasing diversity and inclusion in the workplace is a challenge. Previous research and theory suggest that leaders play a critical role in fostering an inclusive workplace by the diversity policies and programs they enact as well as the inclusive behaviors they role model (Boekhorst, 2015; Bowen & Ostroff, 2004; Kulik, 2014). The current research suggests inclusive leadership is a multi-dimensional construct that includes leadership behaviors of treating all work unit members with fairness, equality, and respect; encouraging integration of and synergy among all work unit members; and explicitly enacting diversity and inclusion in the work unit. Compared to other leadership styles, inclusive leadership particularly focuses on how to best manage the increasingly diverse workforce and leverage the synergistic outcomes of diversity. Beyond the widely acknowledged effective leadership behaviors (e.g., ensuring justice and equity, asking other people for ideas and suggestions and taking them into consideration when making a

decision, concerning for the needs of individual team members; Yukl, 2012), inclusive leaders explicitly comply with and implement organizational diversity and inclusion related policies and programs that promote inclusion and prevent exclusion (e.g., reduce biases and confront discriminations) in order to address status and power differences in the work unit. Thus, the current research defines inclusive leadership as a distinctive leadership style that ensures fairness and equality for all work unit members, creates integration and synergy in the work unit, and most importantly, makes diversity and inclusion explicit in the work unit (i.e., implementing and complying with organizational diversity and inclusion related policies and programs), in order to best manage diverse employees, address status and power differences, and leverage the synergistic outcomes of diversity.

The current research established a content, construct, convergent, discriminant, and criterion valid and reliable measure of inclusive leadership, the Inclusive Leadership Questionnaire (ILQ), that can be used to help academics better understand what inclusive leadership is, how best to measure it, and the impact it has on work-related processes and outcomes. Additionally, practitioners can use this measure to assess the strengths and development opportunities of leaders; develop inclusive leadership capabilities; facilitate the incorporation of behavior based inclusive leadership criteria into the talent management system (e.g., performance evaluation, career development); and continuously make progress toward the goal of creating an inclusive workplace and gaining long-term organization health and growth.

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APPENDIX A INCLUSIVE LEADERSHIP QUESTIONNAIRE (40 ITEMS)

Instructions

- Please read each question carefully and think about how often your manager engages in the described behaviors in your work unit in the past year. Your manager is the person to whom you report most directly and with whom you have the most direct communication. Your work unit is the group or team of employees with whom you work that has the same manager, shares common goals and is responsible for accomplishing specific tasks.
- Please rate each question on a five-point scale: 1 = Almost never, 2 = Seldom, 3 = Sometimes, 4 = Often, 5= Almost always.

Internal Structure	Specific Sub-Dimensions	Items
		My manager …
Dimension 1: Providing equal opportunity and fair treatment to all work unit members	providing equal opportunity to all work unit members	1. makes training opportunities equally accessible to all work unit members.
		2. makes challenging assignments equally accessible to all work unit members.
		3. makes him/herself equally accessible to all work unit members.
		4. makes resources equally accessible to all work unit members.
		5. shares important information with all work unit members.
	providing fair treatment to all work unit members	6. conducts fair performance reviews of work unit members.
		7. makes recommendations for promotion fairly in the work unit.
		8. treats everyone in the work unit fairly.

Internal Structure	Specific Sub-Dimensions	Items
	managing micro inequalities and subtle discrimination	9. manages biases toward marginalized group members in the work unit.
		10. confronts both direct and subtle forms of discrimination in the work unit.
Dimension 2: Encouraging integration of and synergy among all work unit members	facilitating open communication among all work unit members	11. listens to all work unit members with respect.
		12. tries to understand different viewpoints in the work unit.
		13. communicates openly with all work unit members.
	seeking all work unit members' contributions	14. seeks members' input when pursuing work unit goals.
		15. encourages diverse inputs from all members to achieve work unit goals.
		16. encourages work unit members to contribute in their own ways.
	integrating perspectives from all work unit members	17. is open to alternative perspectives when working on shared problems in the work unit.
		18. integrates perspectives from all work unit members.
	encouraging inclusive decision making and problem solving processes among all work unit members	19. encourages everyone in the work unit to participate in decision making.
		20. asks for opinions from all work unit members when making decisions.
		21. actively incorporates different points of view into final decisions.
		22. implements a shared decision-making process.
		23. implements an inclusive problem-solving process.

Internal Structure	Specific Sub-Dimensions	Items
	welcoming constructive collaboration among all work unit members	24. welcomes constructive debate among work unit members.
		25. encourages work unit members to challenge each other's perspectives in a constructive way.
		26. encourages all work unit members to collaborate with each other.
	encouraging mutual learning among all work unit members.	27. encourages work unit members of diverse backgrounds to exchange ideas.
		28. encourages all work unit members to learn from one another.
Dimension 3: Directly addressing work unit members' fundamental needs for uniqueness, authenticity, and belongingness	directly addressing work unit members' fundamental need for uniqueness	29. respects individual differences in the work unit.
		30. values the uniqueness of all work unit members.
		31. values the differences that members of diverse backgrounds bring to the work unit.
	directly addressing work unit members' fundamental need for authenticity	32. encourages work unit members to share their true selves.
		33. encourages work unit members to be their authentic selves.
		34. makes it safe for work unit members to authentically express themselves.
	directly addressing work unit members' fundamental need for belongingness	35. tries to create an atmosphere in which all work unit members feel a sense of belongingness.
		36. tries to make all members feel like they belong to the work unit.

Internal Structure	Specific Sub-Dimensions	Items
		37. tries to create a cohesive work unit where members feel like they belong.
Dimension 4: Implementing organizational diversity and inclusion related policies and programs in the work unit	enacting organizational diversity and inclusion related policies and programs in the work unit	38. complies with organizational diversity and inclusion policies in the work unit.
		39. implements organizational diversity and inclusion programs in the work unit.
		40. implements organizational diversity and inclusion initiatives in the work unit.

APPENDIX B SUBJECT MATTER EXPERTS (SME) RECRUITING SCRIPT

We plan to collect survey data from subject matter experts recruited online via Email. The following text will be used for email recruiting.

Dear [Dr. first and last name of the SME],

My name is Aitong Li, and I am a doctoral candidate at Teachers College, Columbia University. I am working with Dr. Elissa Perry on developing a measure of inclusive leadership. I am writing to ask you if you would be willing to review this proposed measure as a subject matter expert. You were chosen because of your published research in the areas of inclusive leadership, diversity management, and/or other similar domains. As a subject matter expert, I am requesting that you assess the relevance of the items on the scale, and to provide any general feedback you may have about these items. The survey should take you about 10 minutes to complete. Your responses will be anonymous and confidential, and will be utilized to retain, modify, or remove items.

Thank you very much for considering this request. If you have any inquiries, please do not hesitate to contact me at al3288@tc.columbia.edu. Your participation in this study is extremely valuable to advancing the understanding of inclusive leadership in the workplace.

Please see link below to participate [insert link here]

Best regards,
Aitong

APPENDIX C

VALIDATION OF CONTENT RELEVANCE AND REPRESENTATIVENESS OF ITEM POOL

Inclusive Leadership Questionnaire (ILQ)

Thank you very much for agreeing to review my assessment tool (Inclusive Leadership Questionnaire) for content validation!

The current research aims to conceptualize a theory-based, multidimensional construct of inclusive leadership and develop a theoretically grounded and empirically valid measure of inclusive leadership (Inclusive Leadership Questionnaire).

The instrument is designed to measure inclusive leadership. Specifically, it is designed to measure the perception of inclusive leadership behaviors, a non-cognitive construct; tapping employees' self-reports of past experiences with their managers' inclusive leadership behaviors.

The instrument is designed for employees in workplaces who have an immediate supervisor or manager and work in teams or units that require interacting with colleagues. Individual scores can be aggregated to the work unit level to obtain work unit level collective perceptions of a manager's inclusiveness.

The first use of the ILQ will be research related. The instrument can be used to expand knowledge about the construct of inclusive leadership, and how it is related to other constructs (e.g., psychological safety, organizational citizenship behaviors, innovative behaviors, job performance). The second use of the ILQ will be practice related. Companies can use the instrument to assess the inclusiveness of their leadership practices (e.g., in a leadership coaching session, in a leadership training session). It has the potential to help organizations' manage their workplace diversity.

Based on an extensive review of the inclusion and inclusive leadership literatures, I have identified four dimensions of inclusive leadership, and each of these dimensions has one or more sub-dimensions.

Below I will ask you to:

- Rate the relevance of each item against its associated dimension and sub-dimension on a 4-point scale (1=not relevant, 2=somewhat relevant, 3=quite relevant, 4=highly relevant).
- Provide any feedback you have in the text boxes on each page (e.g., suggesting the rephrasing of items/dimensions or inclusion of new items).

Internal Structure	**Specific Sub-dimensions**	**Items** (rated on a five-point scale: 1 = Almost never, 2 = Seldom, 3 = Sometimes, 4 = Often, 5= Almost always)	**Relevance** (1=not relevant, 2=somewhat relevant, 3=quite relevant, 4=highly relevant)	**Comments**
		My manager …		
Dimension 1: Providing equal opportunity and fair treatment to all work unit members	providing equal opportunity to all work unit members	41. makes training opportunities equally accessible to all work unit members.		
		42. makes challenging assignments equally accessible to all work unit members.		
		43. makes him/herself equally accessible to all work unit members.		
		44. makes resources equally accessible to all work unit members.		
		45. shares important information with all work unit members.		
	providing fair treatment to all work unit members	46. conducts fair performance reviews of work unit members.		
		47. makes recommendations for promotion fairly in the work unit.		
		48. treats everyone in the work unit fairly.		

	managing micro inequalities and subtle discrimination	49. manages biases toward marginalized group members in the work unit.		
		50. confronts both direct and subtle forms of discrimination in the work unit.		
Dimension 2: Encouraging integration of and synergy among all work unit members	facilitating open communication among all work unit members	51. listens to all work unit members with respect.		
		52. tries to understand different viewpoints in the work unit.		
		53. communicates openly with all work unit members.		
	seeking all work unit members' contributions	54. seeks members' input when pursuing work unit goals.		
		55. encourages diverse inputs from all members to achieve work unit goals.		
		56. encourages work unit members to contribute in their own ways.		
	integrating perspectives from all work unit members	57. is open to alternative perspectives when working on shared problems in the work unit.		
		58. integrates perspectives from all work unit members.		
	encouraging inclusive decision making and problem solving processes among all work unit members	59. encourages everyone in the work unit to participate in decision making.		
		60. asks for opinions from all work unit members when making decisions.		

		61. actively incorporates different points of view into final decisions.		
		62. implements a shared decision-making process		
		63. implements an inclusive problem-solving process		
	welcoming constructive collaboration among all work unit members	64. welcomes constructive debate among work unit members.		
		65. encourages work unit members to challenge each other's perspectives in a constructive way.		
		66. encourages all work unit members to collaborate with each other.		
	encouraging mutual learning among all work unit members.	67. encourages work unit members of diverse backgrounds to exchange ideas.		
		68. encourages all work unit members to learn from one another.		
Dimension 3: Directly addressing work unit members' fundamental needs for uniqueness, authenticity, and belongingness	directly addressing work unit members' fundamental need for uniqueness	69. respects individual differences in the work unit.		
		70. values the uniqueness of all work unit members.		
		71. values the differences that members of diverse backgrounds bring to the work unit.		
	directly addressing work unit members'	72. encourages work unit members to share their true selves.		

	fundamental need for authenticity	73. encourages work unit members to be their authentic selves.		
		74. makes it safe for work unit members to authentically express themselves.		
	directly addressing work unit members' fundamental need for belongingness	75. tries to create an atmosphere in which all work unit members feel a sense of belongingness.		
		76. tries to make all members feel like they belong to the work unit.		
		77. tries to create a cohesive work unit where members feel like they belong.		
Dimension 4: Implementing organizational diversity and inclusion related policies and programs in the work unit	enacting organizational diversity and inclusion related policies and programs in the work unit	78. complies with organizational diversity and inclusion policies in the work unit.		
		79. implements organizational diversity and inclusion programs in the work unit.		
		80. implements organizational diversity and inclusion initiatives in the work unit.		

Additional comments if needed:

1. Are there general dimensions or specific sub-dimensions of inclusive leadership that should be assessed but are not listed in the current assessment?

2. Is there any additional feedback you would like to share with the researcher regarding the assessment?

Demographic Questions for Subject Matter Experts

Which category below includes your age?

- 17 or younger
- 18-20
- 21-29
- 30-39
- 40-49
- 50-59
- 60 or older

Please indicate your gender

- Male
- Female
- Other

Please indicate your race/ethnicity

- African American or Black
- Asian or Asian American
- Hispanic or Latino
- White
- American Indian or Alaska Native
- Native Hawaiian or other Pacific Islander
- Other

How many years of research experience in your field? ____

APPENDIX D EMPIRICAL VALIDATION MEASURES

Leader Inclusiveness (Nembhard & Edmondson, 2006; alpha = .82)

To what extent do you agree with the following statements.

1. My manager encourages all team members to take initiative.
2. My manager asks for the input of all team members.
3. My manager does not value the opinion of all team members equally. (R)

Five-point scale (*strongly disagree* to *strongly agree*)

Inclusive Leadership (Developed for the current research)

To what extent do you agree with the following statements.

1. My manager is an inclusive leader.

Five-point scale (*strongly disagree* to *strongly agree*)

Participative Leadership (Indvik, 1985; Northouse, 2018; Polston-Murdoch, 2013; alpha = .91)

To what extent do you agree with the following statements.

1. My manager consults with subordinates when facing a problem.
2. My manager listens receptively to subordinates' ideas and suggestions.
3. My manager acts without consulting subordinates. (R)
4. My manager asks for suggestions from subordinates concerning how to carry out assignments.
5. My manager asks subordinates for suggestions on what assignments should be made.

Five-point scale (*strongly disagree* to *strongly agree*)

Big-five Personality (Gosling, Rentfrow, & Swann, 2003; alpha = .81 for extraversion and .56 for agreeableness; average inter-item correlation = .68 for extraversion and .40 for agreeableness)

I see myself as:

1. Extraverted, enthusiastic. (Extraversion)
2. Reserved, quiet. (Extraversion reversed)
3. Critical, quarrelsome. (Agreeableness reversed)
4. Sympathetic, warm. (Agreeableness)

Five-point scale (*strongly disagree* to *strongly agree*)

Enjoyment of Nature (Milfont & Duckitt, 2010; alpha = .91)

To what extent do you agree with the following statements.

1. I really like going on trips into the countryside, for example to forests or fields.
2. I find it very boring being out in wilderness areas. (R)
3. Being out in nature is a great stress reducer for me.
4. I have a sense of well-being in the silence of nature.
5. I find it more interesting in a shopping mall than out in the forest looking at trees and birds. (R)
6. I think spending time in nature is boring. (R)

Five-point scales (*strongly disagree to strongly agree*)

Perception of Work Unit Inclusion (Chung et al., 2020; alpha = .94)

Please indicate the degree to which you personally agree or disagree with each of the following statements about the work group in which you work.

1. I am treated as a valued member of my work group.
2. I belong in my work group.
3. I am connected to my work group.

4. I believe that my work group is where I am meant to be.
5. I feel that people really care about me in my work group.
6. I can bring aspects of myself to this work group that others in the group don't have in common with me.
7. People in my work group listen to me even when my views are dissimilar.
8. While at work, I am comfortable expressing opinions that diverge from my group.
9. I can share a perspective on work issues that is different from my group members.
10. When my group's perspective becomes too narrow, I am able to bring up a new point of view.

Five-point scale (*strongly disagree* to *strongly agree*)

Helping Behavior (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Randel, Dean, Ehrhart, Chung, & Shore, 2016; alpha = .90)

How often do you engage in the following behaviors.

1. Help others who have been absent.
2. Help others who have heavy workloads.
3. Help orient new people even though it is not required.
4. Help others who have work related problems.
5. Lend a helping hand to those around me.

Five-point scale (*almost never* to *almost always*)

Innovative Behavior (Carmeli, Reiter-Palmon, & Ziv, 2010; alpha = .89)

How often do you engage in the following behaviors.

1. Demonstrate originality at work.
2. Try out new ideas and approaches to problems.
3. Identify opportunities for new products and/or processes.
4. Generate novel but operable work-related ideas.

Five-point scale (*almost never* to *almost always*)

Demographic Questions

1) Please indicate your gender
   - Male
   - Female
   - Other

2) Please indicate your race
   - African American or Black
   - Asian or Asian American
   - Hispanic or Latino
   - White o
   - American Indian or Alaska Native
   - Native Hawaiian or other Pacific Islander
   - Other

3) Please indicate your country of residence
   - U.S.
   - Outside of the U.S.

4) Which category below includes your age?
   - 17 or younger
   - 18-20
   - 21-29
   - 30-39
   - 40-49
   - 50-59
   - 60 or older

5) What is the highest level of school you have completed or the highest degree you have received?
   - Less than high school degree
   - High school degree or equivalent (e.g., GED)

- Some college but no degree
- Associate degree
- Bachelor degree
- Graduate degree
- Other

6) Which of the following categories best describes your employment status?
   - Employed, working 1-39 hours per week
   - Employed, working 40 or more hours per week
   - Not employed, looking for work
   - Not employed, NOT looking for work
   - Retired
   - Disabled, not able to work

7) To what extent does your job require you to work as part of a work unit?
   Five-point scale (*almost never* to *almost always*)

8) How much of your time at work is spent working as a member of a team?
   Five-point scale (*almost never* to *almost always*)

9) How many years of full-time work have you completed? _____

10) How many years of management experience do you have**?** _____

11) In what industry do you work? [Drop down menu] Resource from O*NET
    - Accommodation and Food Services
    - Administrative and Support Services
    - Agriculture, Forestry, Fishing, and Hunting
    - Arts, Entertainment, and Recreation
    - Construction
    - Educational Services
    - Finance and Insurance

- Government
- Health Care and Social Assistance
- Information
- Management of Companies and Enterprises
- Manufacturing
- Mining, Quarrying, and Oil and Gas Extraction
- Other Services (Except Public Administration)
- Professional, Scientific, and Technical Services
- Real Estate and Rental and Leasing
- Retail Trade
- Transportation and Warehousing
- Utilities
- Wholesale Trade

Attention Check Questions

1. For this question, please select “Almost never” to demonstrate your attention.

Five-point scale (*almost never* to *almost always*)

2. For this question, please select “Strongly disagree” to demonstrate your attention.

Five-point scale (*strongly disagree* to *strongly agree*)

APPENDIX E SUMMARY OF TABLES

Table A-1

Descriptive Statistics of 35 ILQ Items

	Item	N	Mean	SD	Median	Min	Max	Range	Skew	Kurtosis	SE
Q35	My manager makes training opportunities equally accessible to all work unit members.	529	3.98	1.05	4	1	5	4	-0.98	0.52	0.05
Q36	My manager makes challenging assignments equally accessible to all work unit members.	529	3.60	1.08	4	1	5	4	-0.59	-0.19	0.05
Q37	My manager makes him/herself equally accessible to all work unit members.	529	3.93	1.05	4	1	5	4	-0.99	0.59	0.05
Q38	My manager makes resources equally accessible to all work unit members.	529	4.02	0.99	4	1	5	4	-1.04	0.87	0.04
Q40	My manager conducts fair performance reviews of work unit members.	529	4.02	1.03	4	1	5	4	-1.08	0.86	0.04
Q41	My manager makes recommendations for promotion fairly in the work unit.	529	3.57	1.22	4	1	5	4	-0.63	-0.51	0.05
Q42	My manager treats everyone in the work unit fairly.	529	4.04	1.11	4	1	5	4	-1.09	0.50	0.05
Q43	My manager manages biases toward marginalized group members in the work unit.	529	3.57	1.16	4	1	5	4	-0.53	-0.52	0.05
Q44	My manager confronts both direct and subtle forms of discrimination in the work unit.	529	3.46	1.22	4	1	5	4	-0.39	-0.78	0.05
Q45	My manager listens to all work unit members with respect.	529	4.05	1.07	4	1	5	4	-1.12	0.70	0.05
Q46	My manager tries to understand different viewpoints in the work unit.	529	3.75	1.05	4	1	5	4	-0.86	0.42	0.05
Q47	My manager communicates openly with all work unit members.	529	3.91	1.04	4	1	5	4	-0.97	0.52	0.05

	Item	N	Mean	SD	Median	Min	Max	Range	Skew	Kurtosis	SE
Q48	My manager seeks members' input when pursuing work unit goals.	529	3.53	1.09	4	1	5	4	-0.57	-0.20	0.05
Q49	My manager encourages diverse inputs from all members to achieve work unit goals.	529	3.67	1.08	4	1	5	4	-0.73	-0.02	0.05
Q50	My manager encourages work unit members to contribute in their own ways.	529	3.78	1.06	4	1	5	4	-0.76	0.12	0.05
Q52	My manager integrates perspectives from all work unit members.	529	3.63	1.05	4	1	5	4	-0.60	-0.07	0.05
Q53	My manager encourages everyone in the work unit to participate in decision making.	529	3.58	1.13	4	1	5	4	-0.68	-0.20	0.05
Q54	My manager asks for opinions from all work unit members when making decisions.	529	3.40	1.11	3	1	5	4	-0.39	-0.44	0.05
Q55	My manager actively incorporates different points of view into final decisions.	529	3.55	1.06	4	1	5	4	-0.55	-0.15	0.05
Q58	My manager welcomes constructive debate among work unit members.	529	3.50	1.12	4	1	5	4	-0.48	-0.45	0.05
Q59	My manager encourages work unit members to challenge each other's perspectives in a constructive way.	529	3.33	1.16	3	1	5	4	-0.31	-0.64	0.05
Q60	My manager encourages all work unit members to collaborate with each other.	529	3.92	1.00	4	1	5	4	-0.85	0.34	0.04
Q61	My manager encourages work unit members of diverse backgrounds to exchange ideas.	529	3.60	1.12	4	1	5	4	-0.69	-0.14	0.05
Q62	My manager encourages all work unit members to learn from one another.	529	3.79	1.06	4	1	5	4	-0.78	0.09	0.05
Q63	My manager respects individual differences in the work unit.	529	3.92	1.04	4	1	5	4	-0.88	0.30	0.05
Q64	My manager values the uniqueness of all work unit members.	529	3.81	1.10	4	1	5	4	-0.78	-0.07	0.05

	Item	N	Mean	SD	Median	Min	Max	Range	Skew	Kurtosis	SE
Q65	My manager values the differences that members of diverse backgrounds bring to the work unit.	529	3.73	1.06	4	1	5	4	-0.77	0.14	0.05
Q66	My manager encourages work unit members to share their true selves.	529	3.57	1.15	4	1	5	4	-0.60	-0.37	0.05
Q67	My manager encourages work unit members to be their authentic selves.	529	3.71	1.12	4	1	5	4	-0.71	-0.18	0.05
Q68	My manager makes it safe for work unit members to authentically express themselves.	529	3.83	1.09	4	1	5	4	-0.76	-0.06	0.05
Q69	My manager tries to create an atmosphere in which all work unit members feel a sense of belongingness.	529	3.84	1.13	4	1	5	4	-0.96	0.28	0.05
Q70	My manager tries to make all members feel like they belong to the work unit.	529	3.92	1.05	4	1	5	4	-0.93	0.32	0.05
Q71	My manager tries to create a cohesive work unit where members feel like they belong.	529	3.84	1.11	4	1	5	4	-0.89	0.15	0.05
Q73	My manager implements organizational diversity and inclusion programs in the work unit.	529	3.46	1.15	4	1	5	4	-0.53	-0.42	0.05
Q74	My manager implements organizational diversity and inclusion initiatives in the work unit.	529	3.53	1.16	4	1	5	4	-0.56	-0.43	0.05

Table A-2

Bivariate Correlations of 35 ILQ Items

	Q35	Q36	Q37	Q38	Q40	Q41	Q42	Q43	Q44	Q45
Q35	1.00****									
Q36	0.64****	1.00****								
Q37	0.64****	0.59****	1.00****							
Q38	0.65****	0.54****	0.63****	1.00****						
Q40	0.62****	0.61****	0.65****	0.64****	1.00****					
Q41	0.57****	0.60****	0.58****	0.53****	0.64****	1.00****				
Q42	0.64****	0.56****	0.66****	0.67****	0.72****	0.62****	1.00****			
Q43	0.52****	0.60****	0.49****	0.50****	0.59****	0.57****	0.57****	1.00****		
Q44	0.49****	0.53****	0.44****	0.44****	0.53****	0.55****	0.51****	0.66****	1.00****	
Q45	0.63****	0.58****	0.69****	0.69****	0.71****	0.61****	0.77****	0.58****	0.51****	1.00****
Q46	0.62****	0.62****	0.63****	0.61****	0.60****	0.63****	0.66****	0.56****	0.55****	0.73****
Q47	0.62****	0.60****	0.67****	0.67****	0.61****	0.61****	0.67****	0.52****	0.48****	0.69****
Q48	0.55****	0.62****	0.57****	0.51****	0.58****	0.57****	0.55****	0.58****	0.50****	0.61****
Q49	0.59****	0.63****	0.59****	0.55****	0.63****	0.61****	0.63****	0.63****	0.54****	0.66****
Q50	0.57****	0.61****	0.58****	0.57****	0.60****	0.61****	0.60****	0.59****	0.48****	0.64****
Q52	0.58****	0.62****	0.57****	0.56****	0.63****	0.60****	0.63****	0.61****	0.55****	0.65****
Q53	0.52****	0.61****	0.53****	0.46****	0.53****	0.56****	0.52****	0.54****	0.51****	0.58****
Q54	0.56****	0.59****	0.53****	0.50****	0.54****	0.56****	0.53****	0.53****	0.50****	0.58****
Q55	0.54****	0.62****	0.56****	0.48****	0.54****	0.58****	0.57****	0.56****	0.52****	0.63****
Q58	0.49****	0.58****	0.53****	0.47****	0.56****	0.62****	0.51****	0.54****	0.53****	0.56****
Q59	0.45****	0.58****	0.46****	0.41****	0.45****	0.52****	0.46****	0.49****	0.47****	0.51****
Q60	0.53****	0.58****	0.55****	0.55****	0.58****	0.56****	0.57****	0.57****	0.49****	0.59****
Q61	0.55****	0.61****	0.54****	0.49****	0.59****	0.60****	0.58****	0.68****	0.61****	0.59****
Q62	0.55****	0.58****	0.51****	0.50****	0.61****	0.58****	0.57****	0.58****	0.49****	0.56****
Q63	0.63****	0.58****	0.61****	0.66****	0.71****	0.63****	0.74****	0.60****	0.54****	0.74****
Q64	0.61****	0.62****	0.62****	0.57****	0.68****	0.63****	0.68****	0.62****	0.55****	0.72****
Q65	0.57****	0.60****	0.56****	0.52****	0.62****	0.57****	0.60****	0.67****	0.61****	0.65****
Q66	0.57****	0.61****	0.55****	0.52****	0.57****	0.59****	0.61****	0.60****	0.53****	0.64****
Q67	0.55****	0.63****	0.54****	0.50****	0.59****	0.59****	0.59****	0.61****	0.57****	0.63****
Q68	0.61****	0.60****	0.58****	0.55****	0.63****	0.60****	0.62****	0.60****	0.56****	0.67****
Q69	0.61****	0.62****	0.60****	0.56****	0.66****	0.63****	0.65****	0.60****	0.57****	0.69****
Q70	0.65****	0.68****	0.65****	0.61****	0.69****	0.66****	0.70****	0.66****	0.58****	0.71****
Q71	0.65****	0.67****	0.64****	0.61****	0.66****	0.64****	0.67****	0.67****	0.56****	0.73****
Q73	0.46****	0.52****	0.42****	0.42****	0.47****	0.52****	0.46****	0.66****	0.58****	0.48****
Q74	0.51****	0.53****	0.45****	0.41****	0.49****	0.53****	0.50****	0.65****	0.56****	0.51****

	Q46	Q47	Q48	Q49	Q50	Q52	Q53	Q54	Q55	Q58
Q35										
Q36										
Q37										
Q38										
Q40										
Q41										
Q42										
Q43										
Q44										
Q45										
Q46	1.00****									
Q47	0.68****	1.00****								
Q48	0.69****	0.58****	1.00****							
Q49	0.68****	0.58****	0.72****	1.00****						
Q50	0.69****	0.62****	0.70****	0.70****	1.00****					
Q52	0.70****	0.60****	0.72****	0.73****	0.69****	1.00****				
Q53	0.64****	0.57****	0.72****	0.66****	0.65****	0.70****	1.00****			
Q54	0.66****	0.57****	0.72****	0.67****	0.62****	0.67****	0.73****	1.00****		
Q55	0.68****	0.59****	0.71****	0.68****	0.67****	0.70****	0.72****	0.68****	1.00****	
Q58	0.65****	0.56****	0.70****	0.69****	0.67****	0.68****	0.66****	0.65****	0.70****	1.00****
Q59	0.60****	0.51****	0.65****	0.64****	0.60****	0.67****	0.65****	0.61****	0.65****	0.65****
Q60	0.64****	0.61****	0.65****	0.66****	0.66****	0.65****	0.61****	0.60****	0.59****	0.60****
Q61	0.63****	0.57****	0.68****	0.76****	0.67****	0.69****	0.65****	0.64****	0.65****	0.68****
Q62	0.59****	0.59****	0.64****	0.69****	0.64****	0.64****	0.63****	0.59****	0.56****	0.61****
Q63	0.68****	0.67****	0.61****	0.68****	0.67****	0.66****	0.55****	0.57****	0.61****	0.61****
Q64	0.74****	0.64****	0.68****	0.71****	0.68****	0.73****	0.62****	0.64****	0.65****	0.65****
Q65	0.65****	0.55****	0.66****	0.74****	0.66****	0.69****	0.60****	0.62****	0.65****	0.61****
Q66	0.70****	0.59****	0.68****	0.70****	0.71****	0.69****	0.65****	0.67****	0.66****	0.65****
Q67	0.65****	0.59****	0.67****	0.73****	0.70****	0.68****	0.66****	0.64****	0.66****	0.64****
Q68	0.68****	0.65****	0.62****	0.66****	0.65****	0.67****	0.65****	0.61****	0.64****	0.63****
Q69	0.71****	0.66****	0.69****	0.70****	0.67****	0.71****	0.66****	0.60****	0.66****	0.67****
Q70	0.71****	0.68****	0.69****	0.71****	0.71****	0.71****	0.64****	0.63****	0.65****	0.64****
Q71	0.71****	0.68****	0.71****	0.72****	0.70****	0.73****	0.64****	0.61****	0.65****	0.65****
Q73	0.53****	0.40****	0.57****	0.59****	0.52****	0.57****	0.53****	0.54****	0.52****	0.54****
Q74	0.56****	0.47****	0.58****	0.62****	0.55****	0.56****	0.51****	0.52****	0.51****	0.54****

	Q59	Q60	Q61	Q62	Q63	Q64	Q65	Q66	Q67	Q68
Q35										
Q36										
Q37										
Q38										
Q40										
Q41										
Q42										
Q43										
Q44										
Q45										
Q46										
Q47										
Q48										
Q49										
Q50										
Q52										
Q53										
Q54										
Q55										
Q58										
Q59	1.00****									
Q60	0.60****	1.00****								
Q61	0.65****	0.66****	1.00****							
Q62	0.57****	0.67****	0.69****	1.00****						
Q63	0.49****	0.58****	0.63****	0.60****	1.00****					
Q64	0.59****	0.61****	0.69****	0.62****	0.74****	1.00****				
Q65	0.57****	0.61****	0.75****	0.62****	0.69****	0.74****	1.00****			
Q66	0.62****	0.63****	0.69****	0.65****	0.64****	0.72****	0.68****	1.00****		
Q67	0.63****	0.63****	0.71****	0.62****	0.65****	0.73****	0.70****	0.82****	1.00****	
Q68	0.56****	0.60****	0.67****	0.61****	0.67****	0.68****	0.65****	0.73****	0.73****	1.00****
Q69	0.60****	0.68****	0.71****	0.66****	0.69****	0.76****	0.71****	0.70****	0.72****	0.72****
Q70	0.56****	0.69****	0.70****	0.68****	0.73****	0.77****	0.70****	0.68****	0.70****	0.69****
Q71	0.59****	0.68****	0.70****	0.68****	0.70****	0.74****	0.74****	0.70****	0.70****	0.71****
Q73	0.51****	0.50****	0.67****	0.55****	0.52****	0.52****	0.62****	0.56****	0.56****	0.51****
Q74	0.48****	0.50****	0.65****	0.56****	0.54****	0.57****	0.64****	0.57****	0.54****	0.50****

	Q69	Q70	Q71	Q73	Q77
Q35					
Q36					
Q37					
Q38					
Q40					
Q41					
Q42					
Q43					
Q44					
Q45					
Q46					
Q47					
Q48					
Q49					
Q50					
Q52					
Q53					
Q54					
Q55					
Q58					
Q59					
Q60					
Q61					
Q62					
Q63					
Q64					
Q65					
Q66					
Q67					
Q68					
Q69	1.00****				
Q70	0.78****	1.00****			
Q71	0.81****	0.80****	1.00****		
Q73	0.55****	0.55****	0.56****	1.00****	
Q74	0.59****	0.57****	0.61****	0.74****	1.00****

**** Correlation is significant at the .0001 level (2-tailed).