

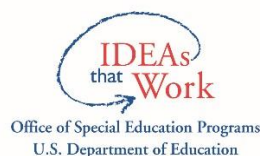


Meta-Analysis of the Relationships Between Different Leadership Practices and Organizational, Teaming Leader and Employee Outcomes



Supplemental Report

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Meta-Analysis of the Relationships Between Different Leadership Practices and Organizational, Teaming, Leader and Employee Outcomes: Supplemental Report

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Abstract

The meta-analysis described in Dunst et al. (2018) includes results for the relationships between 11 leadership practices and 7 organizational, teaming and workgroup, leader, and employee outcomes. This supplemental report includes (a) the study protocol, (b) the research reviews searched for leadership studies in addition to controlled vocabulary, keyword, and natural language searches of electronic databases, (c) results from the content analyses of 64 leadership practices measures, (d) the categorization of the 138 outcome measures in the studies in the meta-analysis, and (e) tables of results from different sets of analyses summarized in the Dunst et al. (2018) meta-analysis.

Introduction

The meta-analysis described in Dunst et al. (2018) evaluated the relationships between 11 types of leadership practices and 7 organizational, teaming and workgroup, leader, and employee outcomes. A main focus of analysis was whether the leadership practices were differentially related to the study outcomes. Studies were eligible for inclusion if the correlations between leadership subscale measures (rather than global measures of leadership) and outcomes of interest were reported. One hundred and twelve studies met the inclusion criteria and included 39,433 participants. The studies were conducted in 31 countries in different kinds of programs, organizations, companies, and businesses. Random effects weighted average correlations between the independent and dependent measures were used as the sizes of effects for evaluating the relationships between the leadership practices and outcome measures. Results indicated that the 11 types of leadership practices were differentially related to the study outcomes even in the presence of considerable between study heterogeneity. Ninety-six percent of the practice-outcome effect sizes were statistically significant where approximately half of the relationships were moderated by organizational types (for-profit, not-for-profit, education, healthcare, government, etc.) and, to a lesser degree, by the country where the studies were conducted.

Supplemental Information

This supplemental report includes information briefly described or summarized in the Dunst et al. (2018) meta-analysis. The report also includes additional information for understanding the method and approach to the research synthesis (protocol), sources of information about candidate studies, the subscale items and measures used to assess the 11 leadership practices, the outcome measures used in the studies in the meta-analysis, and tables of results summarized in the meta-analysis report (Dunst et al., 2018).

This supplemental report includes detailed information only summarized in Dunst et al. (2018) for describing the methodology and follow-up analyses briefly described in the meta-analysis. The preparation of the material in this report was supported, in part, by funding from the U.S. Department of Education, Office of Special Education Programs (No. 325B120004) for the Early Childhood Personnel Center, University of Connecticut Health Center. The contents and opinions expressed, however, are those of the authors and do not necessarily reflect the policy or official position of either the Department or Office and no endorsement should be inferred or implied.

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Meta-Analysis Protocol

The study protocol is included in Appendix S-1. The protocol was modified and changed at different stages in the conduct of the meta-analysis based on information included (or not included) in the primary studies. The *American Psychological Association* reporting standards (Appelbaum et al., 2018) guided variable coding, methods of analysis, and presentation of results to the extent it was possible to include recommended information based on what was reported in primary studies.

Sources of Candidate Studies

As part of the literature searches for studies meeting inclusion criteria (see Appendix S-1), 41 research reviews were identified for the types of leadership constituting the focus of investigation. The reviews are listed in Appendix S-2. The 41 reviews included 1660 studies. All of the studies in the reviews were retrieved and examined to determine if they met the inclusion criteria for the meta-analysis.

Leadership Practices Measures

The primary sources of leadership practices measures were the subscales on leadership instruments. The secondary sources were investigator-adapted and investigator-developed measures of different kinds of leadership practices. It became clear early on in the conduct of the literature searches that subscale measures with the same construct name or label often did not include similar item content, and measures named or labeled differently sometimes included the same or similar item content. Further examination of the items on the different leadership subscale measures indicated that it was not appropriate to assume that the leadership measures as labeled by either scale developers or primary study investigators could be used to categorize the subscales for subsequent analysis.

To be assumed subscale items on different measures were measuring particular types of leadership practices, it was necessary to conduct an extensive content analysis of all subscale items and to categorize the subscales for operationally defining different types of leadership practices (Babbie, 2009). The 23 measures employed in the studies meeting the inclusion criteria included 64 subscale, investigator-adapted, or investigator-developed measures. The content analysis and categorization of subscales resulted in 11 operationally defined leadership practices. The 11 practices were organizational visioning, motivational communication, modeling desired behavior, encouraging employee input and feedback, soliciting creative employee solutions, shared decision making, relationship-building practices, confidence-building practices, coaching practices, performance expectations, and performance rewards. Table 1 shows the operational definitions of the practices based on the content analyses of each leadership practice. Appendix S-3 lists the 11 leadership practices and the subscale items for measuring each practice.

Outcome Measures

The studies meeting the inclusion criteria included 138 different outcome measures. Copies of all scales or measures were retrieved, and the items content analyzed and categorized into seven organizational, team and workgroup, leader, and four employee outcomes (belief appraisals, psychological health, job satisfaction, and job performance). Appendix S-4 lists the measures for each of the seven outcomes. As was the case with the leadership measures, the item analyses of the outcome measures found that same or similarly named measures often included different item content, and those with different names included similar item content.

Follow-up Analyses

The main results reported in the meta-analysis (Table 4 in Dunst et al., 2018) indicated that the leadership practices were differentially related to the three nonemployee (organizational engagement, team effectiveness, and leader entrustment) compared to employee (belief appraisals, psychological health, job satisfaction, and job performance) outcomes, where the sizes of effects were larger for the former (Tables 5 and 6 in Dunst et al., 2018). Post-hoc follow-up analyses for between outcome measure differences within each set of outcomes were run for each leadership practice to identify any differential relationships between the practices and study outcomes.

Table S-1 shows the results for the relationships between the 11 leadership practices and the three nonemployee outcomes. There were between outcome measure differences for 9 of the 11 leadership practices (Q_{Between} results in Table S-1). Inspection of the sizes of effects in Table S-1 shows that the effect sizes for leader entrustment are larger than those for organizational engagement and team effectiveness for all but one leadership practice. Additional follow-up analyses found that there were significant differences between leader entrustment and the other two nonemployee outcomes for 9 of the 11 leadership practices confirming the observation that there were differential relationships between the leadership practices and study outcomes. The results are shown in Table S-2.

The same between outcome measure comparisons for each leadership practice and the four employee outcomes generally showed no differential relationships and no discernible patterns in *post-hoc* follow-up analyses. The results are shown in Table S-3. There were between outcome measure differences for only 3 of the 11 leadership practices.

Moderator Analyses

Meta-regression was used to evaluate the effects of continuously scored moderator variables on leadership-outcome measure relationships and Q_{Between} was used to test for categorical moderator effects (Appelbaum et al., 2018). Table S-4 shows the meta-regression results for the effects of study sample size, year of publication, country democracy scores (The Economist, 2017), and type of organization (contrast coded) on the sizes of effect between each leadership practice and the outcome measures. Type of organization was the primary moderator variable associated with the size of the leadership practice-outcome measure relationships. The contrast coding was based on the pattern of results in Table S-5 for each type of organization where the aggregated mean effect sizes were used to contrast code organizations according to the following: government (-3), education (-2), healthcare (-1), mixed (0), for profit product (1), not-for-profit (2), and for profit service (3).

The moderator effects for the economies of the countries (United Nations, 2018) where the studies were conducted are shown in Table S-6. The sizes of effects were moderated by the three leader-centered practices (organizational visioning, motivational communication, and modeling desired behavior) and confidence-building leadership practices. In all four analyses, the sizes of effects were largest for developing countries.

Conclusion

The methods and results in Dunst et al. (2018) and this supplemental report provide readers with information necessary to be able to understand the approach to the meta-analysis of leadership practices studies. The Appendices and Tables in the supplemental report, for example, include information for understanding how the leadership practices were identified and which results were used to draw conclusions in the meta-analysis paper.

Table 1. Key Characteristics of Each of the Leadership Practices

Leadership Practice	Key Characteristics
Organizational Visioning	Leaders clearly describe the vision of the organization; the values and beliefs that are the foundations for the vision; actively engage employees in discussions and activities promoting employee commitment to foundational beliefs, values, sense of purpose, and desired performance; and “depict a future that is credible, realistic, attractive, inspiring, and better than the status quo” (O’Connell, Hickerson, & Pillutla, 2010, p.105).
Motivational Communication	Leaders talk positively about the organization and employees; how employee strengths and assets make important contributions to organizational goals and practices; and how “expression of positive and encouraging messages about the organization and [makes] statements that build [employee] motivation and confidence” (Rafferty & Griffin, 2004, p. 332).
Modeling Desired Behavior	Leaders lead by example in a manner where modeling desired behavior serves as exemplars to clearly communicate what he or she expects from employees to “increase the levels of those behavior among followers” (Brown & White, 2009, p. 126) where a leader’s behavior and actions are consistent with his or her belief appraisals (Emiliani, 2003).
Encouraging Employee Input and Feedback	Leaders solicit employee input and feedback to improve organization practices and to encourage frequent and ongoing employee engagement as a means to strengthen leader-employee and employee-employee actions consistent with organizational visioning and goals (Lewis, 2014).
Soliciting Creative Solutions	Leaders seek creative, alternative, and innovative ways of improving organizational and employee practices that challenges deeply held beliefs and ways of achieving organizational goals (King Duvall, 1999).
Shared Decision-Making	Leaders engage employees in shared leadership characterized by collaboration and participatory decision-making with a focus on methods and strategies for achieving organizational goals. Shared decision-making is a particular type of confidence-building practice that influences employee and team commitment to organizational goals (Barnett & Weidenfeller, 2016).
Relationship-Building Practices	Leaders engage in behavior that is sensitive and responsive to employees’ values, needs, and individual differences in order to build trusting relationships and open communication between a leader and employees where “high-quality relationships are considered mature partnerships based on respect, trust, and mutual obligation for one another” (Uhl-Bien, 2003, p. 134).
Confidence-Building Practices	Leaders provide employees opportunities to participate in organizational processes that instill pride and build employee confidence where leader-provided confidence-building experiences (Kanter & Fox, 2016) are one practice for strengthening employee beliefs and improving job performance (Axelrod, 2017).
Coaching Practices	Leaders provide employees supportive guidance and feedback on organizational and individual practices in ways that build on existing employee strengths and promote improvements in employee performance (Ely et al., 2010).
Performance Expectations	Leaders clearly articulate behavior expectations in terms of both organizational and individual employee practices and insist on high levels of performance in order to achieve organizational goals that clearly communicate high but reasonable performance expectations that “increases employees’ <i>understanding and confidence</i> in their work” (Moynihan, Wright, & Pandey, 2012, p. 319).

Table 1, continued.

Leadership Practice	Key Characteristics
Performance Rewards	Leaders provide positive feedback in response to collective and individual accomplishments where “contingent rewards provides rewards for [employee] effort and recognizes good performance” (Odumeru & Ifeanyi, 2013, p. 359).

Appendix S-1

Protocol for a Meta-Analysis of the Relationships Between Different Leadership Practices and Organizational, Teaming, Leader and Employee Outcomes

Meta-Analysis Investigators

Authors: Carl J. Dunst, Ph.D., Mary Beth Bruder, Ph.D., Deborah W. Hamby, M.P.H., Robin Howse, Ph.D., and Helen Wilkie, M.A.T.

Lead Investigator: Carl J. Dunst

Meta-Analyst: Deborah W. Hamby

Literature Searches: Helen Wilkie, Deborah W. Hamby and Carl J. Dunst

Leadership Practices Coding: Carl J. Dunst, Robin Howse and Deborah W. Hamby

Outcome Measure Coding: Carl J. Dunst, Deborah W. Hamby and Helen Wilkie

Moderator Variable Coding: Carl J. Dunst and Deborah W. Hamby

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Objectives

The primary objectives of the meta-analysis were:

1. Identify the relationships between operationally defined leadership practices and different study outcomes.
2. Identify any differential relationships between the operationally defined leadership practices and different study outcomes.
3. Identify the moderators of the relationships between the leadership practices and study outcomes.

Background

A cursory review of leadership studies where leadership measures include subscales of different kinds of leader styles, traits, characteristics, or practices, finds that the subscale measures are often intercorrelated. Many investigators of the primary studies assumed that because of these interrelationships, correlations with outcome measures would likely be the same. This led most investigators to compute total leadership scale scores and correlate these measures with outcomes of interest. This is problematic for a number of reasons. First, factor analysis studies of leadership measure scale items more often than not results in multiple factor solutions indicating that the scales are measuring sets of different leadership practices. Second, the assumption that highly correlated leadership subscale measures would be similarly correlated with the same study outcomes is not warranted because the nature of covariation between study measures could be either similar or different. Third, by combining subscale scores to obtain a global leadership measure and correlating that measure with study outcomes could mask any differential relationships between independent and dependent variables.

As part of the search for leadership studies, the majority of candidate studies used global leadership measures and only a few meta-analyses of leadership were identified that examined the relationships between leadership subscale measures and outcomes of interest (Dumdum, Lowe, & Avolio, 2002; Lowe, Kroeck, & Sivasubramaniam, 1996; Wang, Oh, Courtright, & Colbert, 2011). However, these three meta-analyses included a limited number of leadership subscale measures and only a few types of outcome measures. This was the basis for the meta-analysis described in this protocol where only leadership practices subscale measures, investigator-adapted, or investigator-developed measures of specific kinds of practices were correlated with study outcomes in candidate studies. This permitted identification of which kinds of leadership practices were related to which kinds of outcomes as well as permitted identification of any differential relationships between the leadership measures and study outcomes.

Types of Leadership Investigated

The types of leadership investigated were those described by Avolio et al. (2009) as new-genre leadership. These included, but were not limited to, authentic leadership, shared leadership, transactional leadership, transformational leadership, distributed leadership, collective leadership, participatory leadership, and charismatic leadership. The main focus of investigation was the relationships between different dimension of each type of leadership and the outcomes of interest by investigators of primary studies. Measures of these types of leadership were subsequently content analyzed in order to identify operationally defined leadership practices as described below.

Search Sources and Methods

PsychInfo, ERIC, EBSCO, ProQuest Central, and PubMed were the primary sources for locating candidate studies. Research reviews of the types of leadership constituting the focus of investigation were also examined for candidate studies (Appendix S-2). Both of these sources were supplemented by Google Scholar searches and examination of the reference sections of all retrieved leadership studies and papers. The full texts of all candidate studies were retrieved to make decisions about including or excluding a leadership study.

The primary sources were searched using controlled vocabulary, key word, and natural language terms. Controlled vocabulary terms were identified in the thesauri in each database. The controlled vocabulary terms were combined with each leadership type in separate Boolean searches. All search results in all search sources were sorted by relevance and the full texts of the research reports were examined until 40 consecutive studies included no relevant data.

Inclusion Criteria

Studies were included if the leadership investigators employed subscale measures or other measures of the types of leadership constituting the focus of investigation, and the correlations between different dimensions, domains, subdimensions, factors, etc. and one or more outcomes were reported. The leadership measures needed to have been completed by followers (frontline staff) on individuals in immediate leadership or management positions, or by managers of individuals in immediate supervisory or leadership roles. Studies were limited to those published in English and in journal articles.

Data Coding Protocol

The following variables were coded and entered into a database for subsequent analysis:

1. Author(s) name(s)
2. Title of article
3. Journal name

4. Year of publication
5. Number of study participants
6. Participant gender
7. Participant age
8. Participants' education levels
9. Participants' years of employment
10. Participants' length of employment (current position)
11. Participant position or role
12. Type of program, organization, business, etc.
13. Location (country) where the study was conducted
14. Name of leadership measure
15. Names of the leadership subscales (dimensions, domains, etc.)
16. Names and types of outcome measures
17. Correlations between each leadership practice subscale measure and each study outcome

An iterative process was used to code and categorize both the leadership and outcome measures based on content analyses of the items on each of the measures. The leadership subscales, dimensions, constructs, etc. measures and the study outcome measures that were identified through this iterative process were used in the final analyses of leadership practices-outcome measures relationships. The ways in which other variables were reported in primary studies were used to construct moderator variables. Studies were also coded according to *post hoc* identified moderator variables (The Economist, 2017; United Nations, 2018) based on the fact that the studies were conducted in 31 countries.

Methods of Analysis

MedCalc (Schoonjans, 2017) and *Comprehensive Meta Analysis* (Borenstein, Hedges, Higgins, & Rothstein, 2018) were used to run diagnosis, compute the average weighted correlations between the leadership practices measures and study outcomes, compute the 95% confidence intervals for the average effect sizes, evaluate the heterogeneity (inconsistency) of the average effect sizes, compare between average effect size differences, and conduct moderator analyses.

Appendix S-2

Research Reviews of Leadership Studies

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Appendix S-3

Leadership Practices Subscale Items

Organizational Visioning

Articulating a Vision (Podsakoff et al., 1990) Has a clear understanding of where we are going
 Paints an interesting picture of the future for our group
 Is always seeking new opportunities for the organization
 Inspires other with his/her plans for the future
 Is able to get others committed to his/her dreams

Idealized Influence Behavior (Avolio & Bass, 2004)
 Talks about my most important values and beliefs
 Specifies the importance of having a strong sense of purpose
 Considers the moral and ethical consequences of decisions
 Emphasizes the importance of having a collective sense of mission

Vision and Mobilizing (Podsakoff et al., 1990)
 Has a clear understanding of where we are going
 Paints an interesting picture of the future for our group
 Is always seeking new opportunities for the organization
 Inspires other with his/her plans for the future
 Is able to get others committed to his/her dreams
 Leads by doing, rather than simply telling
 Provides a good model for me to follow
 Leads by example
 Fosters collaboration among work groups
 Encourages employees to be team players
 Gets the group to work together for the same goal
 Develops a team attitude and spirit among employees

Dramatizes Mission (Behling & McFillen, 1996)
 Presents the mission of the organization enthusiastically
 Makes the mission of the organization/unit seem important
 Does not announce the mission in an inspiring fashion (R)

Identifying a Vision (House, 1998)
 Has a clear understanding of where we are going
 Has a clear sense of where he/she wants our unit to be in 5 years
 Has no idea where the organization is going (R)

Inspiring a Shared Vision (Kouzes & Posner, 1988, 2017)
 Talks about future trends that will influence how our work gets done
 Paints the "big picture" of what we aspire to accomplish
 Describes a compelling image of what our future could be like
 Shows others how their long-term interests can be realized by enlisting a common vision
 Speaks with genuine conviction about the higher meaning and purpose of our work
 Appeals to others to share dream of the future

Inspirational Motivation (Loganathan & Krishnan, 2010)
 Involves each member of group in striving toward the group's common goal
 Shows others the bigger picture behind all actions
 Sets goals that enhance others' desire to achieve them
 Utilizes every opportunity to talk about the vision of the organization

Appendix S-3, continued.**Organizational Visioning, continued****Inspirational Motivation**, continued

- Is persistent in achieving the targets
- Has a fantastic sense of visualization

Supportive Distributive (Hulpia & Devos, 2009)

- Premises a long term vision
- Debates the school vision
- Compliments teachers
- Helps teachers
- Explains his/her reason for criticism to teachers
- Is available after school to help teachers when assistance is needed
- Looks out for the personal welfare of teachers
- Encourages me to pursue my own goals for professional learning
- Encourages me to try new practices consistent with my own interests
- Provides organizational support for teacher interaction

Visioning and Mobilizing (Turning Point National Program Office, 2012)

- Describes a personal vision for my community that offers a future achievable with the assets available
- Facilitates an effective process for exploring the diverse aspirations among community stakeholders
- Facilitates the development of a shared community vision that is influenced by the views of diverse stakeholders
- Communicates the shared vision broadly
- Creates a framework for action using systems thinking
- Facilitates stakeholder teaming to develop strategic issues and actions
- Creates the conditions for brainstorming the strategic issues and actions
- Builds an action plan with time lines and assigned responsibilities to enable the community vision to be achieved
- Facilitates achieving buy-in to the action plans and next steps
- Follows up on action plans to ensure completion
- Seeks innovative solutions for persistent problems encountered while mobilizing to achieve the vision

Vision and Strategy (O'Brien, 1994)

- Discusses trends and forces that drive current and future changes in our field as a normal part of our work
- Has a vision of ourselves as an organization in which learning and purposeful change are expected
- Has a broad understanding of our organization's structure, processes, and systems and how they are interrelated

Motivational Communication**Inspirational Motivation** (Avolio & Bass, 2004)

- Talks optimistically about the future
- Talks enthusiastically about what needs to be accomplished
- Articulates a compelling vision of the future
- Expresses confidence that goals will be achieved

Charismatic Leadership (Bass, 1985; Avolio, Bass & Jung, 1996)

- Proud of him/her
- Goes beyond self-interest
- Has my respect
- Displays power and confidence
- Talks of values
- Models ethical standards
- Considers the moral/ethical

Appendix S-3, continued.**Motivational Communication, continued****Charismatic Leadership**, continued.

- Emphasizes the collective mission
- Talks optimistically
- Expresses confidence
- Talks enthusiastically
- Arouses awareness about important issues

Inspirational Communication (House, 1998)

- Says things that make employees proud to be a part of this organization
- Says positive things about the work unit
- Encourages people to see changing environments as situations full of opportunities

Management Practices (O'Brien, 1994)

- Inspires to follow management toward organizational vision
- Visibly leads and facilitates problem-solving efforts or special projects
- Speaks about the connections between continuous learning, continuous improvement, quality and program outcomes

Modeling Desired Behavior**Providing an Appropriate Model** (Podsakoff et al., 1990)

- Leads by doing, rather than simply telling
- Provides a good model for me to follow
- Leads by example

Modeling the Way (Kouzes & Posner, 1988, 2017)

- Follows through on promises and commitments he/she makes
- Sets a personal example of what he/she expects of others
- Makes certain that people adhere to the principles and standards that have been agreed upon
- Is clear about his/her philosophy of leadership
- Builds consensus around a common set of values for running the organization
- Ask for feedback on how his/her actions affect other people's performance

Internalized Moral Perspective (Avolio et al., 2007; Laschinger, Wong & Grau, 2013)

- Demonstrates beliefs that are consistent with actions
- Makes decisions base his/her core beliefs
- Asks you to take positions that support your core values
- Makes difficult decisions based on high standards of ethical conduct

Problem Solving (Hiller et al., 2006)

- Decides on best course of action when problems arise
- Diagnoses problems quickly
- Uses our team's combined expertise to solve problems
- Finds solutions to problems affecting team performance
- Identifies problems before they arise
- Develops solutions to problems
- Solves problems as they arise

Idealized Influence Attributed (Loganathan & Krishnan, 2010)

- Is hardworking and enthusiastic about work
- Is the epitome of confidence, whatever the situation
- Leads from the front
- Is charged with energy to do more
- Has the courage to make bold decisions and stick with them
- Works for the group's common goal, even at cost of foregoing personal benefits

Modeling Desired Behavior, continued

Idealized Influence Behavior (Loganathan & Krishnan, 2010)

~~Exhibits consistency in behavior when it comes to his/her set of core values~~

~~Coordinates well with other leaders~~

Leads by example, by practicing what he/she preaches

Is clear in his/her thoughts and actions

Lives up to his/her commitments, no matter what

Influences each person not to be selfish, but to think about the comfort of others

Internalized Moral Perspective (Neider & Schrieheim, 2011)

Shows consistency between his/her beliefs and actions

Uses his/her core beliefs to make decisions

Resists pressure on him/her to do things contrary to his/her beliefs

Is guided in her/her actions by internal moral standards

Behavior Integrity (Simons et al., 2007)

Is a match between my manager's words and actions

Delivers on promises

Practices what he/she preaches

Does what he/she says he/she will do

Conducts himself/herself by the same values he/she talks about

Shows the same priorities that he/she describes

Promises something, I can be certain that it will happen

Says he/she is going to do something, he/she will

Encouraging Employee Input and Feedback

Self-Awareness (Avolio et al., 2007; Laschinger, Wong & Grau, 2013)

Seeks feedback to improve interactions with others

~~Accurately describes how others view his or her capabilities~~

~~Knows when it is time to reevaluate his or her position on important issues~~

~~Shows he or she understand how specific actions impact others~~

Self-Awareness (Neider & Schrieheim, 2011)

Solicits feedback for improving his/her dealings with others

Describes accurately the way that others view his/her abilities

Shows that he/she understands his/her strengths and weaknesses

Is clearly aware of the impact he/she has on others

Communicative Transparency (Rogers, 1987)

Asks for suggestions

Acts on criticism

Listens to complaints

Follows up on peoples' opinions

Suggests new ideas

Listens to bad news

Listens to new ideas

Follows up on suggestions

Asks for personal opinions

Soliciting Creative Solutions

Intellectual Stimulation (Avolio & Bass, 2004)

Re-examines critical assumptions to question whether they are appropriate

Seeks differing perspectives when solving problems

Gets others to look at problems from many different angles
Suggests new ways of looking at how to complete assignments

Balanced Processing (Avolio et al., 2007; Laschinger, Wong & Grau, 2013)

Solicits views that challenge his or her deeply held positions
Analyzes relevant data before coming to a decision
Listens carefully to different points of view before coming to conclusions

Intellectual Stimulation (Podsakoff et al., 1990)

Challenges me to think about old problems in new ways
Asks questions that prompt me to think
Has stimulated me to rethink the way I do things
Has ideas that have challenged me to reexamine some of my basic assumptions about my work

Balanced Processing (Neider & Schrieheim, 2011)

Asks for ideas that challenge his/her core beliefs
Carefully listens to alternative perspectives before reaching a conclusion
Objectively analyzes relevant data before making a decision
Encourages others to voice opposing points of view

Challenging the Process (Kouzes & Posner, 1988, 2017)

Seeks out challenging opportunities that test his/her own skills and abilities
Identifies measureable milestones that keep projects moving forward
Takes initiative in anticipating and responding to change
Actively searches for innovative ways to improve what we do
Challenges people to try out new and innovative ways to do their work
Asks "What can we learn?" when things don't go as expected

Intellectual Stimulation (Loganathan & Krishnan, 2010)

Encourages others to solve problems independently
Makes others question assumptions they make, for even the simplest of things
Promotes free and radical thinking
Nurtures creativity by not imposing too many processes
Makes others to come up with more and more ideas regarding any issue
Encourages others to throw away conventional thinking

Individual & Team Practices (O'Brien, 1994)

Encourages individuals and teams to identify and solve problems in their work areas
Minimizes blaming in conflict situations, so that people can openly and honestly discuss the issues and work toward solutions
Encourages people in groups to analyze mistakes in order to learn how to do it better the next time

Rewards and Recognition (O'Brien, 1994)

Recognizes people for being courageous; that is, for experimenting and taking appropriate chances
Does not punish people for making honest mistakes, for having tried something worthwhile and failed
Recognizes people for solving program-related problems or successfully meeting challenges

Appendix S-3, continued.**Shared Decision Making****Fostering Group Goals** (Podsakoff et al., 1990)

Fosters collaboration among work groups
 Encourages employees to be team players Gets
 the group to work together for the same goal
 Develops a team attitude and spirit among employees

Planful Alignment (Mascall et al., 2008)

Collectively plan who will provide leadership for each of our initiatives and how they will provide it

Cooperative Leadership (Hulpia & Devos, 2009)

There is a well functioning leadership team in my school
 The leadership team tries to act as well as possible
 The leadership team supports the goals we like to attain without school
 All members of the leadership team work in the same strain on the school's core objectives
 In our school the right man sits on the right place, taken the competencies into account
 Members of the management team divide their time properly

Cooperative Leadership, (Hulpia & Devos, 2009), continued

Members of the leadership team have clear goals
 Members of the leadership team know which tasks they have to perform
 The leadership team is willing to execute a good idea
 It is clear where members of the leadership team are authorized to

Participative Decision Making (Hulpia & Devos, 2009)

Leadership is delegated for activities critical for achieving school goals
 Leadership is broadly distributed among the staff
 We have an adequate involvement in decision-making
 There is an effective committee structure for decision-making
 Effective communication among staff is facilitated
 There is an appropriate level of autonomy in decision-making

Team Empowerment (Pearce & Sims, 2002)

My team leader (members) encourages (encourage) me to treat myself to something I enjoy when I do a task especially well
 My team leader (members) urges (urge) me to reward myself with something I like when I have successfully completed a major task
 My team leader (members) encourages (encourage) me to give myself a pat on the back when I meet a new challenge
 My team leader (members) encourages (encourage) me to work together with other individuals who are part of the team
 My team leader (members) urges (urge) me to work as a team with other individuals who are part of the team
 My team leader (members) advises (advise) me to coordinate my efforts with other individuals who are part of the team.
 My team leader (members) and I work together to decide what my performance goals should be
 My team leader (members) and I sit down together and reach agreement on my performance goals
 My team leader (members) works (work) with me to develop my performance goals
 My team leader (members) encourages (encourage) me to search for solutions to my problems without supervision
 My team leader (members) encourages (encourage) me to find solutions to my problems without his/her (their) direct input
 My team leader (members) advises (advise) me to solve problems when they pop up without always getting a

s t a m p o f a p p r o v a l

Shared Decision Making, continued

Team Empowerment, continued.

-
- My team leader (members) urges (urge) me to assume responsibilities on my own
 - My team leader (members) advises (advise) me to look for the opportunities contained in the problems I face
 - My team leader (members) encourages (encourage) me to view unsuccessful performance as a chance to learn
 - My team leader (members) urges (urge) me to think of problems as opportunities rather than obstacles
 - My team leader (members) encourages (encourage) me to develop myself
 - My team leader (members) encourages (encourage) me to develop my skills and abilities
 - My team leader (members) encourages (encourage) me to seek out opportunities to learn
 - My team leader (members) encourages (encourage) me to seek out educational opportunities
 - My team leader (members) encourages (encourage) me to learn by extending myself
 - My team leader (members) encourages (encourage) me to learn new things

Shared Leadership (Bass & Avolio, 1990, 1994) (Representative items only)

- Instill pride in being associated with each other
- Emphasize the importance of having a collective sense of mission
- Seeks a broad range of perspectives when solving problems
- Set high standards
- Spend time teaching and coaching each other
- Focus on developing each other's strengths

Sharing Power and Influence (Turning Point National Program Office, 2012)

- Uses personal power responsibly
- Shares power as a means for increasing power
- Shares power with others whenever possible
- Offers people an active role in decision making about matters that affect them
- Relies significantly on peer problem-solving when exercising leadership
- Promotes self-confidence in others
- Creates processes that ensure stakeholders an equal say in decision making
- Encourages others to act together to change circumstances that affect them
- Expresses confidence in the capabilities of others
- Uses influence to produce results whenever possible
- I s o p e n t o b e i n g i n f l u e n c e d b y o t h e r s

Relationship-Building Practices

Relational Transparency (Avolio et al., 2007; Laschinger, Wong & Grau, 2013)

-
- ~~Says exactly what he or she means~~
 - Admits mistakes when they are made
-
- Encourages everyone to speak their mind
 - Tells you the hard truth
 - Displays emotions exactly in line with feelings

Providing Individualized Support (Podsakoff et al., 1990)

- Acts without considering my feelings (R)
- Shows respect for my personal feelings
- Behaves in a manner thoughtful of my personal needs
- Treats me without considering my personal feelings (R)

Displays Empathy (Behling & McFillen, 1996)

- Tries to understand followers' values
- Fits her/her goals to followers' values
- Appeals to the values of the followers in communicating his/her goals

Supportive Leadership (House, 1998)

- Considers my personal feelings before acting
 - Behaves in a manner which is thoughtful of my personal needs
 - Sees that the interests of employees are given due consideration
-

Relational Transparency (Neider & Schriecheim, 2011)

- Clearly states what he/she means
- Admits mistakes when they occur
- Openly shares information with others
- Expresses his/her ideas and thoughts clearly to others

Individualized Consideration (Loganathan & Krishnan, 2010)

- Recognizes the fact that different people need to be treated differently
- Recognizes competence in others and encourages them to build on the same
- Brings the best out of every individual
- Is sensitive to others' personal needs
- Encourages others to discuss personal issues with him/her
- Ensures that others get all possible support so that they can pursue other interests of life

Building Trust (Turning Point National Program Office, 2012)

- Builds communication processes that make it safe for people to say what is on their minds
- Refuses to engage in "rigged" process
- Protects the group from those who would wield personal power over the collaborative process
- Creates credible processes for collaborating
- Ensures that processes for exercising collaborative leadership are open to all stakeholders
- Ensures that processes for collaborative leadership are transparent to all stakeholders
- Approaches collaboration by relying heavily on building trust among stakeholders
- "Walks the talk", i.e., does what he/she says he/she will do
- Demonstrate to peers that believes that trust is the foundation for successful collaboration

Confidence-Building Practices

Idealized Influence (Avolio & Bass, 2004)

- Instills pride in others for being associated with me
 - Goes beyond self-interest for the good of the group
-

- Acts in ways that build others' respect for me
 - Displays a sense of power and confidence
-

- Talks about my most important values and beliefs
- Specifies the importance of having a strong sense of purpose
- Considers the moral and ethical consequences of decisions
- Emphasizes the importance of having a collective sense of mission

Idealized Influence Attributed (Avolio & Bass, 2004)

- Instills pride in others for being associated with me
- Goes beyond self-interest for the good of the group
- Acts in ways that build others' respect for me
- Displays a sense of power and confidence

Provides Opportunities for Success (Behling & McFillen, 1996)

- Helps followers set attainable goals
 - Gives followers opportunities to accomplish things on their own
 - Creates opportunities for followers to experience success
-

Appendix S-3, continued.**Confidence-Building Practices, continued****Enabling Others to Act** (Kouzes & Posner, 1988, 2017)

- Treats people with dignity and respect
- Develops cooperative relationships among the people he/she works with
- Actively listens to diverse points of view
- Gives people a great deal of freedom and choice in deciding how to do their work
- Involves people in the decisions that directly impact their job performance
- Ensures that people grow in their jobs by learning new skills and developing themselves

Coaching Practices**Individual Consideration** (Avolio & Bass, 2004)

- Spends time teaching and coaching
- Treats others as individuals rather than just as a member of the group
- Considers each individual as having different needs, abilities and aspirations from others
- Helps others to develop their strengths

Development and Mentoring (Hiller et al., 2006)

- Exchanging career-related advice among our team
- Helping to develop each other's skills
- Learning skills from all other team members
- Being positive role models to new members of the team
- Instructing poor performers on how to improve
- Helping out when a team member is learning a new skill

Support and Consideration (Hiller et al., 2006)

- Providing support to team members who need help
- Showing patience toward other team members
- Encouraging other team members when they're upset
- Listening to complaints and problems of team members
- Fostering a cohesive team atmosphere
- Treating each other with courtesy

Developing People (Turning Point National Program Office, 2012)

- Takes seriously responsibilities for coaching and mentoring others
- Invests adequate amounts of time doing people development
- Defines role when serving as coach
- Committed to developing people from diverse segments of the population
- Creates opportunities for people to assess their leadership skills
- Helps people take advantage of opportunities to learn new skills
- Looks for ways to help others become more successful at their jobs
- Helps people to take advantage of opportunities for new experiences
- Establishes expectations for the people he/she mentors
- Asks the people he/she mentors to define their expectations
- Creates a mutually agreed-upon coaching plan, including criteria for success

Supervisory Practices (O'Brien, 1994)

- Help their people integrate what they have learned in development or training programs by discussing early childhood/family support practices
- Encourages people to contribute ideas for improvements through individual conversations and/or group meetings

Performance Expectations**High Performance Expectations** (Podsakoff et al., 1990)

- Shows us that he/she expects a lot from us
- Insists on only the best performance
- Will not settle for second best

Appendix S-3, continued.**Performance Expectations, continued****Shared Leadership** (Pearce & Sims, 2002)

My team leader (members) expect(s) me to perform at my highest level
 My team leader (members) encourage(s) me to go above and beyond what is normally expected of one (e.g., extra effort)
 My team leader (members) expect (s) me to give 100% all of the time
 My team leader (members) isn't (aren't) afraid to "buck the system" if he/she (they) think it is necessary
 My team leader (members) is (are) non-traditional type(s) that "shakes up the system" when necessary
My team leader (members) isn't (aren't) afraid to "break the mold" to find different ways of doing things
 My team leader (members) provides (provide) a clear vision of who and what our team is
 My team leader (members) provides (provide) a clear vision of where our team is going
Because of my team leader (members), I have a clear vision of our team's purpose
 My team leader (members) is (are) driven by higher purposes or ideals
 My team leader (members) has (have) a strong personal dedication to higher purposes or ideals
 My team leader (members) strives (strive) towards higher purposes or ideals
 My team leader (members) shows (show) enthusiasm for my efforts
 My team leader (members) approaches (approach) a new project or task in an enthusiastic way
 My team leader (members) stresses (stress) the importance of our team to the larger organization
 My team leader (members) emphasizes (emphasize) the value of questioning team members
 My team leader (members) encourages (encourage) me to rethink ideas which had never been questioned before
 My team leader (members) questions (question) the traditional way of doing things
 My team leader (members) seeks (seek) a broad range of perspectives when solving problems
My team leader (members) looks (look) at problems from many different angles

Performance Rewards**Contingent Reward** (Avolio & Bass, 2004)

Provide others with assistance in exchange for their efforts
 Discuss in specific terms who is responsible for achieving performance targets
 Make clear what one can expect to receive when performance goals are achieved
 Express satisfaction when others meet expectations

Contingent Reward (Podsakoff et al., 1990)

Always gives me positive feedback when I perform well
 Gives me special recognition when my work is very good
 Commends me when I do a better than average job
 Personally compliments me when I do outstanding work
 Frequently does not acknowledge my good performance (R)

Personal Recognition (Podsakoff et al., 1990)

Commends me when I do a better than average job
 Acknowledges improvement in my quality of work
 Personally compliments me when I do outstanding work

Assures Followers of Competence (Behling & McFillen, 1996)

Tells followers that he/she believes in them
 Compliments followers who do good jobs
 Praises followers for good performance

Encouraging the Heart (Kouzes & Posner, 1988, 2017)

Gets personally involved in recognizing people and celebrating accomplishments
 Praises people for a job well done
 Makes sure people are creatively recognized for their contributions to the success of our projects
 Makes it a point to let people know about his/her confidence in their abilities
 Publicly recognizes people who exemplify commitment to shared values
Tells stories of encouragement about the good work of others

Appendix S-4

Categorization of the Leadership Study Outcome Measures

Outcome Measures	Scales	Sources
Organizational Engagement		
Organizational Citizenship	<i>Organizational Citizenship Behavior</i>	Organ (1988, 1990)
	<i>Extra-Role Performance Scale</i>	Podsakoff & MacKenzie (1994)
	<i>Organizational Citizenship Behavior</i>	Smith et al. (1983)
	<i>Organizational Citizenship Behavior</i>	Williams & Anderson (1991)
	<i>Organizational Climate Questionnaire</i>	Koys & Decotiis (1991)
	<i>Learning Organization</i>	Marquadt (1996)
	<i>Quality Climate (Investigator Developed)</i>	Berson & Linton (2005)
	<i>Interpersonal Helping Behavior</i>	Moorman & Blakely (1995)
	<i>Belief in Higher Work Purpose (Investigator Developed)</i>	Sparks & Schienk (2001)
	<i>Coworker Relationships</i>	Graen & Uhi-Bien (1995) (Adapted)
	<i>Employee Organizational Citizenship</i>	Podsakoff et al. (1990)
	<i>Innovative Behavior Measure</i>	Scott & Bruce (1994)
	<i>Job Content Questionnaire</i>	Karasek (1985)
	<i>Organizational Change Outcomes (Investigator Developed)</i>	Jordan et al. (2015)
	<i>SERVQUAL</i>	Parasuraman et al. (1988)
	<i>Organizational Citizenship Behavior</i>	Somech & Drach-Zahavy (2000)
<i>Academic Optimism Scale (Investigator Developed)</i>	Mascall et al. (2008)	
Organizational Commitment	<i>Organizational Commitment Scale</i>	Allen & Meyer (1990), Meyer et al. (1993)
	<i>Organizational Commitment Questionnaire</i>	Mowday et al. (1979)
	<i>Organizational Commitment Questionnaire</i>	Porter et al. (1974)
	<i>Innovation Success (Investigator Developed)</i>	Matzler et al. (2015)
	<i>Commitment to Athletic Department (Investigator Developed)</i>	Doherty & Danylchuk (1996)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Organizational Commitment, <i>Organizational Identification Scale</i> continued		Smidts et al. (2001)
	<i>Followership Style Scale</i>	Kelley (1992)
	<i>Organizational Identification Questionnaire (Investigator Developed)</i>	Behery (2016)
	<i>SERVQUAL</i>	Parasuraman et al. (1988)
	<i>Unit Cohesion (Adapted)</i>	Podsakoff & MacKenzie (1994)
	<i>Academic Optimism Scale (Investigator Developed)</i>	Mascall et al. (2008)
Team Effectiveness		
Team Functioning	<i>Perceived Unit Effectiveness Scale</i>	Shortell & Rousseau (1989), Shortell et al. (1991)
	<i>Work Team Effectiveness (Investigator Developed)</i>	Hiller et al. (2006)
	<i>Subordinate Group Effectiveness (Investigator Developed)</i>	Wofford et al. (1998)
	<i>Committee Effectiveness (Investigator Developed)</i>	Spangler & Braiotta (1990)
	<i>Extra-Role Behavior Scale</i>	Somech & Drach-Zahavy (2000)
	<i>Harris-Fombrun Corporate Reputation Quotient</i>	Fombrun et al. (2000)
	<i>Interpersonal Collaboration Scale</i>	Laschinger & Smith (2013)
	<i>Organizational Change Outcomes (Investigator Developed)</i>	Jordan et al. (2015)
	<i>SERVQUAL</i>	Parasuraman et al. (1988)
	<i>Team Trust Scale</i>	Walumbwa et al (2011)
	<i>Work Unit Effectiveness (MLQ)</i>	Avolio & Bass (2004)
	<i>Team Effectiveness (Investigator Developed)</i>	Pearce & Sims (2002)
Team Performance	<i>Work Group Performance Criterion (Investigator Developed)</i>	Hater & Bass (1988)
	<i>Project Group Performance Scale (Investigator Developed)</i>	Keller (2006)
	<i>Consolidated-Unit-Performance Measure (Investigator Developed)</i>	Howell & Avolio (1993)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Team Performance, continued	<i>Team Coordination Scale</i>	DeChurch & Haas (2008)
	<i>Team Performance Scale (Investigator Developed)</i>	Fausing et al. (2015)
	<i>Team Project Evaluation (Investigator Developed)</i>	Sivasubramaniam et al. (2002)
Collective Efficacy	<i>Conditions of Work Effectiveness Questionnaire II</i>	Laschinger et al. (2001)
	<i>Collective Efficacy Scale</i>	Salanoya et al. (2003)
	<i>Group Performance Scale</i>	Conger et al. (2000)
	<i>Shared Mental Model Scale</i>	Fransen et al. (2011)
	<i>Academic Optimism Scale (Investigator Developed)</i>	Mascall et al. (2008)
	<i>Group Potency Scale</i>	Guzzo et al. (1993)
Leader Entrustment		
Satisfaction with Leader	<i>MLQ Satisfaction with Leadership Subscale</i>	Avolio & Bass (2004)
	<i>Minnesota Satisfaction Questionnaire</i>	Weiss et al. (1967)
	<i>Job Diagnostic Survey</i>	Hackman & Oldham (1975)
	<i>Performance Appraisal Satisfaction (Investigator Developed)</i>	Waldman et al. (1987)
	<i>Leader-Member Exchange LMX7</i>	Graen & Uhi-Bien (1995)
	<i>Satisfaction rating (Investigator Developed)</i>	Hater & Bass (1988)
	<i>Job Satisfaction</i>	Neuberger & Allerbeck (1978)
	<i>Job Descriptive Index</i>	Smith et al. (1985)
	<i>Job Satisfaction (Investigator Developed)</i>	Rothfelder et al. (2013)
	<i>Firm Success</i>	Pongpearchan & Muni (2012)
	<i>Job Content Questionnaire</i>	Karasek (1985)
	<i>Organization performance (Investigator Developed)</i>	Samad (2012)
	<i>Student Communication Satisfaction Scale</i>	Goodboy et al. (2009)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Leader Motivation	<i>MLQ Extra Effort Subscale</i>	Avolio & Bass (2004)
	<i>Group Interaction</i>	Gartwright & Zander (1960)
Leader Effectiveness	<i>MLQ Effectiveness Subscale</i>	Avolio & Bass (2004)
	<i>Pastoral Leadership Effectiveness Survey (Investigator Developed)</i>	Carter (2009)
	<i>Group Interaction</i>	Gartwright & Zander (1960)
	<i>Leader Effectiveness</i>	Hinkin & Tracey (1994)
	<i>Ministerial Effectiveness Inventory</i>	Majovski (1982)
Trust in Leader	<i>Trust in Leadership</i>	McAllister (1995)
	<i>Trust in and Loyalty to Leader</i>	Podsakoff et al. (1990)
	<i>Global Trust (Investigator Developed)</i>	Gillespie & Mann (2004)
	<i>Conditions of Trust Inventory</i>	Butler (1991)
	<i>Trust in Leader</i>	Podsakoff et al. (1990)
	<i>Follower Belief Scale</i>	Behling & McFillen (1996)
	<i>Interpersonal Trust Scale</i>	McKnight et al. (2002)
	<i>Trust in Leader Questionnaire</i>	Kopp & Schuler (2003)
	<i>Trust in Management Scale</i>	Mayer & Gavin (2005)
	<i>Trust Scale</i>	Schoorman & Ballinger (2006)
	<i>Source Credibility Scale</i>	McCroskey & Teven (1999)
<i>Academic Optimism Scale</i>	Mascall et al. (2008)	
Employee Belief Appraisals		
Personal Self-Efficacy	<i>Psychological Capital Questionnaire</i>	Luthans et al. (2007)
	<i>Maslach Burnout Inventory</i>	Maslach & Jackson (1981)
	<i>Psychological Empowerment Scale</i>	Spreitzer (1995)
	<i>Workplace Innovation Scale</i>	McMurray & Dorai (2003)
	<i>Role Breadth Self-Efficacy Scale (A)</i>	Parker (1998)
	<i>Follower Belief Scale</i>	Behling & McFillen (1996)
	<i>Efficacy Beliefs Scale</i>	Tcshannen-Moran & Woolfolk (2002)
	<i>Academic Optimism Scale</i>	Mascall et al. (2008)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Personal Commitment	<i>Utrecht Work Engagement Scale</i>	Schaufeli et al. (2006)
	<i>Psychological Empowerment Scale</i>	Spreitzer (1995)
	<i>Creative Behavior Measure</i>	George & Zhou (2001)
	<i>Followership Style Questionnaire</i>	Kelley (1992)
	<i>Learning Orientation Scale</i>	Sujan et al. (1994)
	<i>Scale of Engagement</i>	May et al. (2004)
	Personal Motivation	<i>Goal Orientation Instrument</i>
<i>Personal Responsibility Index</i>		Dunst et al. (2011)
<i>Intrinsic Motivation Scale</i>		Anderson & Oliver (1987)
<i>Effort to Distributorship Work (Investigator Developed)</i>		Sparks & Schienk (2001)
<i>Follower Belief Scale</i>		Behling & McFillen (1996)
<i>Class Participation Scale</i>		Fassinger (1995)
<i>Revised Cognitive Learning Indicators Scale</i>		Frymier & Houser (1999)
<i>Student Motivation Scale</i>		Richmond (1990)
Employee Psychological Health		
Job Stress	<i>Nursing Stress Scale</i>	Gray-Toft & Anderson (1981)
	<i>Perceived Strain Scale</i>	Felfe & Liepmann (2006)
	<i>Recovery-Stress Work Questionnaire</i>	Jiménez & Kallus (2005)
	<i>Abusive Supervisor</i>	Tepper (2000)
	<i>Job Stress and Burnout</i>	Dubisnsky et al. (2004), Dhaliwal (2008)
	<i>Negative Acts Questionnaire</i>	Einarsen & Hoel (2001)
	<i>Negative Acts Questionnaire</i>	Warszewska-Makuch (2007)
Positive Well-Being	<i>Modified Trait Meta Mood Scale</i>	Salovey et al. (1995)
	<i>Positive and Negative Affect Scale</i>	Watson et al (1988)
	<i>Excitement and Inspiration Scale (Investigator Developed)</i>	Kastenmüller et al. (2014)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Positive Well-Being, continued	<i>Recovery-Stress Work Questionnaire</i>	Jiménez & Kallus (2005)
	<i>Overall Wellbeing Scale (Investigator Developed)</i>	Zineldin & Hytter (2012)
	<i>Positive Motions Scale</i>	Fiebig & Kramer (1998)
	<i>Affective Learning Scale</i>	McCroskey et al. (1985)
Negative Well-Being	<i>Positive and Negative Affect Scale</i>	Watson et al (1988)
	<i>Negative Motions Scale</i>	Fiebig & Kramer (1998)
General Well-Being	<i>Recovery-Stress Work Questionnaire</i>	Jiménez & Kallus (2005)
	<i>Life Satisfaction Scale</i>	Pavot & Diener (1993)
	<i>Spiritual Well-Being Scale</i>	Ellison (1983)
	<i>Job-Related Affective Well-Being Scale</i>	Van Katwyk et al. (2000)
Poor Mental Health	<i>General Health Questionnaire (Polish Version)</i>	Makowska & Merecz (2001)
Employee Job Satisfaction		
Job Satisfaction	<i>Minnesota Satisfaction Questionnaire</i>	Weiss et al. (1967)
	<i>Employee Satisfaction (Company Created)</i>	Berson & Linton (2005)
	<i>Index of Job Satisfaction</i>	Brayfield & Rothe (1951)
	<i>Job Descriptive Index</i>	Smith et al. (1985)
	<i>Job-In-General Scale</i>	Smith et al. (1989)
	<i>Job Satisfaction Measure</i>	Cammann et al. (1983)
	<i>Global Job Satisfaction Survey</i>	Quinn & Shepard (1974)
	<i>Index of Work Satisfaction</i>	Stamps (1997)
	<i>Overall Job Satisfaction</i>	Shortell & Rousseau (1989)
	<i>Job Enthusiasm Scale</i>	Dewitte & De Cuyper (2003)
	<i>Overall Job Satisfaction</i>	Warr et al. (1979)
Employee Burnout	<i>Maslach Burnout Inventory</i>	Maslach & Jackson (1981)
	<i>Job Stress and Burnout</i>	Dubisnsky et al. (2004), Dhaliwal (2008)
	<i>Absenteeism (Investigator Developed)</i>	Zhu et al. (2005)
	<i>Recovery-Stress Work Questionnaire</i>	Jiménez & Kallus (2005)

Appendix S-4, continued.

Outcome Measures	Scales	Sources
Role Conflict/Ambiguity	<i>Role Clarity/Ambiguity/Conflict Scale</i>	Rizzo et al. (1970)
	<i>Areas of Worklife Scale</i>	Leiter & Maslach (2002)
Intent to Leave	<i>Intent to Leave Job or Profession Scale</i>	Bycio et al (1995)
	<i>Job Insecurity</i>	Hellgren et al. (1999)
	<i>Turnover Intentions (Investigator Developed)</i>	Rafferty & Griffin (2004)
	<i>Intent to Leave Scale</i>	Walsh et al. (1985)
	<i>Turnover Intentions Scale</i>	DeConinck & Stilwell (2004)
	<i>Turnover Intentions Scale</i>	Kelloway et al (1999)
Employee Job Performance		
Employer Rated Performance	<i>Individual Manager Performance (Investigator Developed)</i>	Hater & Bass (1988)
	<i>In-Role Employee Performance</i>	Williams (1989)
	<i>Job Performance (Investigator Developed)</i>	Moss & Ritossa (2007)
	<i>Job Performance Scale</i>	MacKenzie et al. (1991)
	<i>Job Performance and Organizational Citizenship Behavior</i>	Williams & Anderson (1991)
	<i>Employee Job Performance (Investigator Developed)</i>	Whittington et al. (2004)
	<i>Job Performance Measure</i>	Mott (1972)
	<i>Job Performance Measure (Investigator Developed)</i>	Walumba et al (2008)
	<i>Managerial Performance Appraisal System (Investigator Developed)</i>	Waldman et al. (1987)
	<i>Cadet Academic Performance (Investigator Developed)</i>	Vogelgesang et al. 2013
	<i>Performance of Bank Branch Office (Investigator Developed)</i>	Geyer & Steyrer (1998)
Employee Rated Performance	<i>General Performance Scale</i>	Roe et al. (2000)
	<i>Goal Orientation Instrument</i>	VandeWalle (1997)
	<i>Job-Related Learning Scale</i>	Loon & Casimir (2008)
	<i>Productivity Scale</i>	McNeese-Smith (1995)
	<i>Working Hard Scale</i>	Sujan et al. (1994)

Table S-1

Random Effects Results Between the 11 Leadership Practices and the Three NonEmployee Outcome Measures

Leadership Practices/Outcomes	<i>k</i>	<i>N</i>	Weighted Average <i>r</i>	95% CI	<i>Z</i>	<i>p</i> -value
Organizational Visioning ($Q_B = 7.13$, $df = 1$, $p = .008$)						
Leader Entrustment	12	6006	.69	.54, .80	6.72	.000
Organizational Engagement	17	10,860	.41	.26, .54	4.96	.000
Team Effectiveness ^a	0	-	-	-	-	-
Motivational Communication ($Q_B = 24.80$, $df = 2$, $p = .000$)						
Leader Entrustment	31	9638	.66	.59, .72	13.64	.000
Organizational Engagement	18	8590	.41	.24, .55	4.48	.000
Team Effectiveness	10	1867	.37	.26, .47	6.31	.000
Modeling Desired Behavior ($Q_B = 21.68$, $df = 2$, $p = .000$)						
Leader Entrustment	12	5334	.55	.48, .62	11.91	.000
Team Effectiveness	8	2096	.37	.22, .51	4.68	.000
Organizational Engagement	15	6893	.32	.26, .38	10.21	.000
Encouraging Employee Input and Feedback ($Q_B = 15.42$, $df = 2$, $p = .000$)						
Leader Entrustment	8	2548	.54	.47, .60	7.60	.000
Team Effectiveness	7	2051	.43	.32, .53	7.07	.000
Organizational Engagement	7	2221	.33	.25, .41	7.60	.000
Soliciting Creative Employee Solutions ($Q_B = 65.79$, $df = 2$, $p = .000$)						
Leader Entrustment	44	15,701	.61	.56, .65	18.24	.000
Team Effectiveness	17	3918	.38	.29, .46	7.14	.000
Organizational Engagement	36	17,326	.32	.27, .36	12.82	.000
Shared Decision Making ($Q_B = 6.56$, $df = 2$, $p = .038$)						
Leader Entrustment	4	3692	.57	.45, .67	7.83	.000
Organizational Engagement	7	6030	.38	.22, .52	4.45	.000
Team Effectiveness	4	1833	.31	.08, .52	2.63	.009

Table S-1, continued.

Leadership Practices/Outcomes	<i>k</i>	<i>N</i>	Weighted Average <i>r</i>	95% CI	<i>Z</i>	<i>p</i> -value
Relationship-Building Practices ($Q_B = 20.05$, $df = 2$, $p = .000$)						
Leader Entrustment	15	6977	.58	.48, .68	8.65	.000
Team Effectiveness	7	2051	.42	.29, .53	5.88	.000
Organizational Engagement	17	8866	.30	.24, .35	9.97	.000
Confidence-Building Practices ($Q_B = 2.36$, $df = 1$, $p = .125$)						
Leader Entrustment	19	4759	.64	.54, .72	9.86	.000
Team Effectiveness ^a	1	130	.63	-	-	-
Organizational Engagement	12	3737	.48	.26, .65	3.96	.000
Coaching Practices ($Q_B = 38.77$, $df = 2$, $p = .000$)						
Leader Entrustment	31	9638	.66	.58, .72	12.80	.000
Organizational Engagement	19	8306	.35	.29, .41	10.02	.000
Team Effectiveness	10	1794	.35	.26, .43	7.75	.000
Performance Expectations ($Q_B = 3.03$, $df = 1$, $p = .082$)						
Leader Entrustment	6	4253	.37	.27, .47	6.31	.000
Team Effectiveness ^a	2	152	.37	-.02, .67	-	-
Organizational Engagement	8	5477	.25	.17, .33	5.87	.000
Performance Rewards ($Q_B = 40.90$, $df = 2$, $p = .000$)						
Leader Entrustment	25	8886	.56	.50, .62	14.28	.000
Team Effectiveness	8	1619	.28	.06, .47	2.52	.012
Organizational Engagement	20	10,231	.29	.23, .34	10.11	.000

^a Not included in the between outcome measure comparisons.

Table S-2

Average Weighted Correlations for Leader Entrustment vs. Organizational Engagement + Team Effectiveness Non Employee Outcome Measures

Leadership Practices	Organizational Engagement + Team Effectiveness		Leader Entrustment		<i>Q</i> Between	<i>df</i>	<i>p</i> -value
	Average <i>r</i>	95% CI	Average <i>r</i>	95% CI			
Organizational Visioning	.41	.26, .54	.69	.54, .80	7.13	1	.008
Motivational Communication	.40	.28, .51	.66	.59, .72	15.32	1	.000
Modeling Desired Behavior	.34	.28, .40	.55	.48, .62	18.21	1	.000
Encouraging Employee Input/Feedback	.38	.31, .45	.54	.47, .60	9.73	1	.002
Soliciting Creative Solutions	.34	.29, .37	.61	.56, .65	62.09	1	.000
Shared Decision Making	.36	.23, .47	.57	.45, .67	6.10	1	.014
Relationship-Building Practices	.34	.28, .39	.58	.48, .68	14.84	1	.000
Confidence-Building Practices	.49	.29, .65	.64	.54, .72	2.21	1	.137
Coaching Practices	.35	.30, .40	.66	.58, .72	38.11	1	.000
Performance Expectations	.27	.19, .35	.37	.26, .47	2.36	1	.125
Performance Rewards	.28	.23, .34	.56	.50, .62	41.26	1	.000

Table S-3

Random Effects Results Between the 11 Leadership Practices and the Four Employee Outcome Measures

Leadership Practices/Outcomes	<i>k</i>	N	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Organizational Visioning ($Q_B = 6.18$, $df = 3$, $p = .103$)						
Job Satisfaction	12	6636	.45	.21, .63	3.57	.000
Psychological Health	7	1104	.32	.20, .43	4.89	.000
Job Performance	6	2771	.25	.17, .33	5.75	.000
Belief Appraisals	10	4435	.20	.13, .27	5.71	.000
Motivational Communication ($Q_B = 2.15$, $df = 3$, $p = .541$)						
Job Satisfaction	19	10,167	.35	.21, .47	4.70	.000
Psychological Health	12	3308	.33	.18, .46	4.14	.000
Belief Appraisals	8	3833	.26	.17, .35	5.30	.000
Job Performance	7	1752	.25	.18, .32	6.77	.000
Modeling Desired Behavior ($Q_B = 4.54$, $df = 3$, $p = .208$)						
Psychological Health	5	1410	.37	.22, .50	4.58	.000
Job Satisfaction	9	3709	.29	.22, .36	7.84	.000
Belief Appraisals	13	4796	.29	.20, .37	6.36	.000
Job Performance	7	3502	.20	.11, .29	4.19	.000
Encouraging Employee Input and Feedback ($Q_B = 6.13$, $df = 3$, $p = .105$)						
Psychological Health	3	1264	.33	.14, .49	3.44	.000
Belief Appraisals	9	3067	.32	.24, .40	7.11	.000
Job Satisfaction	5	1702	.22	.16, .27	7.11	.000
Job Performance	4	1573	.15	-.03, .31	1.64	.102
Soliciting Creative Employee Solutions ($Q_B = 4.90$, $df = 3$, $p = .180$)						
Job Satisfaction	31	16,425	.32	.22, .40	6.45	.000
Psychological Health	16	4506	.31	.23, .39	6.92	.000
Belief Appraisals	18	6962	.30	.23, .36	8.33	.000
Job Performance	13	4813	.21	.14, .28	5.87	.000

Table S-3, continued.

Leadership Practices/Outcomes	<i>k</i>	<i>N</i>	Weighted Average <i>r</i>	95% CI	<i>Z</i>	<i>p</i> -value
Shared Decision Making ($Q_B = 15.45$, $df = 2$, $p = .000$)						
Psychological Health ^a	1	43	.64	-	-	-
Job Satisfaction	5	2095	.33	.29, .37	15.77	.000
Belief Appraisals	3	1879	.26	.04, .45	2.29	.022
Job Performance	3	1887	.22	.17, .26	9.57	.000
Relationship-Building Practices ($Q_B = 3.55$, $df = 3$, $p = .314$)						
Psychological Health	5	1410	.36	.22, .48	4.87	.000
Belief Appraisals	14	5270	.30	.20, .39	5.56	.000
Job Satisfaction	10	5372	.24	.19, .29	9.41	.000
Job Performance	4	2661	.20	.04, .35	2.39	.017
Confidence-Building Practices ($Q_B = 21.53$, $df = 3$, $p = .000$)						
Job Satisfaction	10	3856	.36	.06, .61	2.36	.018
Psychological Health	10	3095	.31	.24, .37	8.63	.000
Job Performance	4	1454	.24	.13, .35	4.33	.000
Belief Appraisals	3	1068	.10	.03, .16	2.95	.003
Coaching Practices ($Q_B = 6.09$, $df = 3$, $p = .107$)						
Psychological Health	12	3308	.38	.28, .46	7.27	.000
Job Satisfaction	20	10,055	.36	.22, .48	4.76	.000
Job Performance	7	1752	.26	.17, .34	5.69	.000
Belief Appraisals	7	2151	.21	.07, .34	2.89	.004
Performance Expectations ($Q_B = 7.74$, $df = 2$, $p = .021$)						
Job Satisfaction	6	3430	.27	.13, .40	3.75	.000
Belief Appraisals	3	1626	.27	-.01, .51	1.93	.054
Psychological Health ^a	1	43	.32	-	-	-
Job Performance	3	1887	.08	.04, .13	3.67	.000

Table S-3, continued.

Leadership Practices/Outcomes	<i>k</i>	N	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Performance Rewards ($Q_B = 4.61$, $df = 3$, $p = .203$)						
Psychological Health	9	2378	.23	.15, .30	6.06	.000
Job Satisfaction	19	11,667	.21	.08, .33	3.26	.000
Job Performance	7	1349	.15	.05, .24	2.94	.003
Belief Appraisals	7	3365	.12	.05, .19	3.39	.000

^aNot included in the between outcome measure comparisons.

Table S-4

Random Effects Meta-Regression Results for the Moderator Influences of Study Sample Size, Year of Publication, Country Democracy Index, and Type of Organization on the Relationships Between the Leadership Practices and Study Outcomes

Leadership Practices/Moderators	Regression Coefficient	95% CI	<i>Q</i>	<i>df</i>	<i>p</i> -value
Organizational Visioning					
Sample Size	.0000	-.0002, .0002	.03	1	.859
Year of Publication	-.0085	-.0241, .0070	1.16	1	.282
Democracy Index	-.0637	-.1256, -.0017	4.06	1	.044
Type of Organization ^a	.1000	.0549, .1451	18.91	1	.000
Motivational Communication					
Sample Size	-.0001	-.0003, .0001	1.35	1	.245
Year of Publication	-.0050	-.0138, .0038	1.24	1	.266
Democracy Index	-.0331	-.0722, .0061	2.74	1	.098
Type of Organization	.0438	.0110, .0766	6.86	1	.009
Modeling Desired Behavior					
Sample Size	-.0001	-.0002, .0000	1.56	1	.212
Year of Publication	-.0018	-.0097, .0062	.19	1	.660
Democracy Index	.0255	-.0064, .0574	2.45	1	.117
Type of Organization	.0367	.0070, .0663	5.88	1	.015
Encouraging Employee Input and Feedback					
Sample Size	-.0003	-.0006, .0000	3.40	1	.065
Year of Publication	.0071	-.0160, .0302	.36	1	.549
Democracy Index	.0126	-.0261, .0514	.41	1	.522
Type of Organization	.0341	.0010, .0671	4.09	1	.043
Soliciting Creative Employee Solutions					
Sample Size	-.0001	-.0002, .0000	3.85	1	.050
Year of Publication	-.0026	-.0077, .0025	1.01	1	.316
Democracy Index	-.0058	-.0309, .0193	.20	1	.651
Type of Organization	.0206	-.0011, .0424	3.45	1	.063

Table S-4, continued.

Leadership Practices/Moderators	Regression Coefficient	95% CI	<i>Q</i>	<i>df</i>	<i>p</i> -value
Shared Decision Making					
Sample Size	-.0001	-.0002, .0000	2.14	1	.144
Year of Publication	-.0005	-.0144, .0134	.01	1	.941
Democracy Index	.0140	-.0515, .0794	.17	1	.676
Type of Organization	.0444	-.0025, .0913	3.44	1	.064
Relationship-Building Practices					
Sample Size	-.0001	-.0002, .0001	.91	1	.341
Year of Publication	-.0037	-.0124, .0050	.69	1	.407
Democracy Index	.0108	-.0326, .0541	.24	1	.626
Type of Organization	.0434	.0074, .0794	5.57	1	.018
Confidence-Building Practices					
Sample Size	.0001	-.0004, .0007	.20	1	.653
Year of Publication	.0010	-.0186, .0207	.01	1	.917
Democracy Index	-.0660	-.1222, -.0098	5.29	1	.021
Type of Organization	.0605	.0081, .1130	5.12	1	.024
Coaching Practices					
Sample Size	-.0001	-.0003, .0001	.68	1	.409
Year of Publication	-.0024	-.0104, .0055	.36	1	.551
Democracy Index	.0023	-.0345, .0391	.01	1	.904
Type of Organization	.0265	-.0058, .0587	2.59	1	.108
Performance Expectations					
Sample Size	-.0001	-.0002, .0001	.91	1	.340
Year of Publication	-.0015	-.0093, .0064	.13	1	.715
Democracy Index	-.0110	-.0520, .0300	.28	1	.598
Type of Organization	.0493	.0110, .0877	6.35	1	.012

Table S-4, continued.

Leadership Practices/Moderators	Regression Coefficient	95% CI	<i>Q</i>	<i>df</i>	<i>p</i> -value
Performance Rewards					
Sample Size	-.0001	-.0002, .0001	.58	1	.446
Year of Publication	-.0059	-.0130, .0012	2.62	1	.105
Democracy Index	.0239	-.0127, .0606	1.64	1	.201
Type of Organization	.0073	-.0226, .0371	.23	1	.632

^aType of organization was coded: -3 (government), -2 (education), -1 (healthcare), 0 (mixed), 1 (for profit - product focused), 2 (not-for-profit), and 3 (for profit - service focused) based on the pattern of results in Table S-5.

Table S-5

Random Effects Results for the Moderator Influences of Type of Organization on the Relationship Between the Leadership Practices and Study Outcomes

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Organizational Visioning ($Q_B = 41.52$, $df = 6$, $p = .000$)					
For-Profit (Service)	8	.73	.49, .87	4.61	.000
For-Profit (Product)	23	.47	.35, .58	6.73	.000
Not-For-Profit	4	.45	.28, .60	4.69	.000
Healthcare	6	.41	.21, .57	3.85	.000
Mixed	6	.32	.18, .45	4.40	.000
Education	7	.28	.21, .34	8.23	.000
Government	10	.19	.14, .23	8.60	.000
Motivational Communication ($Q_B = 20.41$, $df = 5$, $p = .001$)					
For-Profit (Service)	19	.63	.47, .76	6.22	.000
Education	17	.55	.46, .63	10.12	.000
For-Profit (Product)	17	.41	.23, .57	4.20	.000
Mixed	12	.40	.30, .48	7.52	.000
Healthcare	20	.36	.23, .47	5.21	.000
Government	19	.34	.26, .41	8.12	.000
Not-For-Profit ^a	1	.33	-	-	-
Modeling Desired Behavior ($Q_B = 51.36$, $df = 6$, $p = .000$)					
Not-For-Profit	4	.48	.39, .56	9.56	.000
Mixed	9	.43	.33, .52	7.56	.000
For-Profit (Service)	7	.37	.23, .49	5.06	.000
For-Profit (Product)	26	.37	.30, .44	9.27	.000
Healthcare	14	.35	.26, .43	7.72	.000
Government	5	.17	.10, .23	5.10	.000
Education	4	.16	.05, .26	2.76	.006

Table S-5, continued.

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Encouraging Employee Input and Feedback ($Q_B = 7.15$, $df = 4$, $p = .128$)					
Not-For-Profit	1	.51	-	-	-
Mixed	9	.43	.32, .53	7.17	.000
For-Profit (Product)	10	.39	.30, .48	7.83	.000
For-Profit (Service)	6	.36	.25, .46	6.20	.000
Healthcare	11	.34	.22, .45	5.42	.000
Education	4	.25	.14, .35	4.54	.000
Government ^a	2	.10	-	-	-
Soliciting Creative Employee Solutions ($Q_B = 7.15$, $df = 6$, $p = .307$)					
For-Profit (Service)	30	.48	.36, .59	6.77	.000
Not-For-Profit	5	.45	.37, .52	10.38	.000
Mixed	19	.42	.34, .49	9.89	.000
Education	23	.40	.31, .48	8.19	.000
For-Profit (Product)	47	.37	.31, .43	11.15	.000
Government	17	.36	.26, .45	6.56	.000
Healthcare	34	.35	.27, .42	8.07	.000
Shared Decision Making ($Q_B = 10.22$, $df = 2$, $p = .006$)					
Not-For-Profit	3	.59	.46, .70	7.45	.000
For-Profit (Service) ^a	1	.46	-	-	-
For-Profit (Product)	11	.39	.28, .49	6.50	.000
Government	2	.34	-	-	-
Education	10	.30	.16, .43	4.03	.000
Healthcare ^a	0	-	-	-	-
Mixed ^a	0	-	-	-	-

Table S-5, continued.

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Relationship-Building Practices ($Q_B = 55.92$, $df = 6$, $p = .000$)					
For-Profit (Service)	10	.43	.27, .56	4.99	.000
Not-For-Profit	4	.41	.32, .50	8.09	.000
Mixed	13	.41	.32, .50	7.90	.000
For-Profit (Product)	26	.39	.29, .48	7.01	.000
Healthcare	11	.31	.21, .41	5.82	.000
Education	5	.23	.13, .31	4.71	.000
Government	3	.18	.15, .21	11.89	.000
Confidence-Building Practices ($Q_B = 8.14$, $df = 5$, $p = .149$)					
For-Profit (Service)	8	.72	.53, .84	5.61	.000
Education	7	.45	.26, .60	4.33	.000
For-Profit (Product)	10	.42	.17, .62	3.17	.002
Mixed	13	.41	.27, .53	5.46	.000
Healthcare	10	.41	.25, .55	4.81	.000
Government	10	.39	.22, .54	4.22	.000
Not-For-Profit ^a	1	.31	-	-	-
Coaching Practices ($Q_B = 6.07$, $df = 5$, $p = .300$)					
For-Profit (Service)	20	.56	.39, .70	5.43	.000
Education	18	.49	.38, .59	7.82	.000
Not-For-Profit ^a	1	.45	-	-	-
Mixed	12	.44	.30, .56	5.81	.000
For-Profit (Product)	20	.40	.29, .50	6.64	.000
Government	15	.40	.29, .50	6.66	.000
Healthcare	20	.35	.24, .46	5.58	.000

Table S-5, continued.

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Performance Expectations ($Q_B = 2.99$, $df = 2$, $p = .224$)					
For-Profit (Service)	4	.39	.24, .52	4.95	.000
Not-For-Profit	3	.37	.21, .52	4.30	.000
For-Profit (Product)	18	.27	.20, .34	7.43	.000
Education ^a	2	.15	-	-	-
Government ^a	2	.13	-	-	-
Healthcare ^a	0	-	-	-	-
Mixed ^a	0	-	-	-	-
Performance Rewards ($Q_B = 8.15$, $df = 6$, $p = .228$)					
Not-For-Profit	4	.42	.31, .52	6.95	.000
For-Profit (Product)	21	.41	.30, .51	6.65	.000
Mixed	8	.35	.20, .48	4.39	.000
Education	12	.34	.26, .41	8.06	.000
Government	14	.31	.20, .40	5.65	.000
Healthcare	21	.26	.17, .34	5.67	.000
For-Profit (Service)	15	.26	-.05, .52	1.66	.096

^a Not included in the between outcome measure comparisons.

Table S-6

Random Effects Results for the Moderator Influences of Countries Organized by the United Nations Categorization of Economies on the Relationship Between the Leadership Practices and Study Outcomes

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	<i>Z</i>	<i>p</i> -value
Organizational Visioning ($Q_B = 16.33$, $df = 2$, $p = .000$)					
Developing	13	.62	.37, .78	4.33	.000
Highly Developed	31	.44	.34, .54	7.39	.000
Developed	20	.25	.19, .30	8.43	.000
Motivational Communication ($Q_B = 9.83$, $df = 2$, $p = .007$)					
Developing	28	.54	.41, .65	7.00	.000
Highly Developed	52	.46	.39, .53	10.74	.000
Developed	25	.32	.23, .41	6.66	.000
Modeling Desired Behavior ($Q_B = 6.78$, $df = 2$, $p = .034$)					
Developing	18	.28	.22, .34	8.60	.000
Highly Developed	40	.37	.31, .43	11.02	.000
Developed	11	.41	.32, .50	7.73	.000
Encouraging Employee Input and Feedback ($Q_B = 3.17$, $df = 2$, $p = .205$)					
Developing	12	.31	.24, .37	8.61	.000
Highly Developed	24	.36	.29, .44	8.59	.000
Developed	7	.43	.30, .54	6.20	.000
Soliciting Creative Employee Solutions ($Q_B = 2.34$, $df = 2$, $p = .311$)					
Developing	51	.42	.34, .48	9.89	.000
Highly Developed	92	.40	.36, .44	16.16	.000
Developed	32	.34	.26, .42	7.72	.000
Shared Decision Making ($Q_B = 1.05$, $df = 2$, $p = .592$)					
Developing	3	.37	.23, .49	5.04	.000
Highly Developed	17	.35	.26, .43	7.33	.000
Developed	7	.45	.26, .59	4.53	.000

Table S-6, continued.

Leadership Practices/Moderator	<i>k</i>	Weighted Average <i>r</i>	95% CI	Z	<i>p</i> -value
Relationship-Building Practices ($Q_B = 1.86$, $df = 2$, $p = .395$)					
Developing	17	.32	.25, .39	8.34	.000
Highly Developed	37	.40	.31, .48	8.63	.000
Developed	18	.35	.27, .42	8.46	.000
Confidence-Building Practices ($Q_B = 9.26$, $df = 2$, $p = .010$)					
Developing	19	.59	.43, .71	6.26	.000
Highly Developed	23	.47	.36, .56	7.61	.000
Developed	17	.29	.16, .42	4.19	.000
Coaching Practices ($Q_B = 2.51$, $df = 2$, $p = .286$)					
Developing	34	.46	.36, .56	7.56	.000
Highly Developed	52	.46	.40, .52	11.90	.000
Developed	20	.36	.23, .48	5.12	.000
Performance Expectations ($Q_B = 3.42$, $df = 2$, $p = .181$)					
Developing	3	.34	.29, .38	12.39	.000
Highly Developed	21	.26	.19, .33	7.09	.000
Developed	5	.29	.21, .36	7.26	.000
Performance Rewards ($Q_B = 1.85$, $df = 2$, $p = .397$)					
Developing	13	.23	.07, .38	2.73	.006
Highly Developed	51	.35	.28, .41	9.13	.000
Developed	31	.34	.25, .42	7.35	.000

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