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The Relationship of Self-Awareness to Leadership Effectiveness for Experienced Leaders

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The Relationship of Self-Awareness to Leadership Effectiveness for Experienced Leaders

by

Patricia A. Sullivan

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Curriculum and Instruction with an emphasis in Adult Education
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Emotional intelligence, self-awareness, leadership, Leadership Practices Inventory (LPI)

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Dedication

This work is dedicated to my Sullivan Clan:

Lauren—the most talented and bravest person I know; you remind me each day that the world is anything you make it.

Aaron—you bring kindness, compassion, and smarts into every situation.

Sullivan—you are pure joy; a reminder that now is all there ever needs to be.

Mom—who taught unconditional love, non-judgment, and seeking the good in all.

Dad—who modeled his values: work hard, play hard; be honest and be respectful.

Joan, Mike, Dan, Sue, Gen, Matt, Jen, Paul, Amy, Vince, Cindy, Joe, Carrie, Elizabeth—brilliant in such diverse ways, talented, compassionate, caring, generous, funny (and sometimes not), supportive, fun; extraordinary parents.

Mary—the most generous person I know; you give time, shelter, expertise; you inspire others to support charities; you are all I wrote of siblings above, and yes, even funny.

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Abstract

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. The population included leaders with at least five years of experience in a leadership role. Participants were recruited by snowball sampling methods; the researcher used a diverse network of professionals to recruit other leaders from diverse industries. Each leader completed a 35-survey questionnaire along with demographic questions (gender, education, years in leadership role, industry), and was required to ask at least four direct reports to complete the 35 questions about observed behaviors of their leader. After removing incomplete responses, the final sample included $N = 179$ leaders, each with at least four direct reports ($N = 761$).

Data were collected using three well-established, validated research instruments for this quantitative correlational study: the Emotional and Social Competency Inventory (ESCI) (Boyatzis, 2007), the Leadership Practices Inventory SELF (LPI-SELF) (Kouzes & Posner, 2013b) and the Leadership Practices Inventory OBSERVER (LPI-OBSERVER) (Kouzes & Posner, 2013a). LPI surveys provided five independent leadership competency scores: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2012). Qualtrics, an approved third-party online survey platform, was used to collect and analyze study questions.
The study measured direction and strength of leaders' LPI scores and self-awareness, the direction and strength of how the direct reports’ rated their leaders’ LPI practices and the leaders’ self-awareness; it also measured if there were significant differences in how the leaders rated themselves based on gender, education and time in a leadership position.

The results indicated a positive, but not strong relationship between leaders’ own LPI scores and self-awareness. The relationship of the direct reports’ observation of leaders and their self-awareness appeared positive and strong for each of the five competencies.

The correlation of the five LPI-SELF competencies and self-awareness to gender did not appear significantly different. Results appeared different in four of the five leadership practices based on education. Only Challenging the Process was similar for all educational levels. Whereas, years as a leader appear similar in four of the five leadership practices, and only Modeling the Way showed different results.
Chapter 1
Introduction

Leaders in today’s organizations are required “to get people moving, to take action, and to energize the workforce in an ever changing environment” (Kouzes & Posner, 2012, p. 1). In this evolving business landscape, organizations are finding that the ways in which they previously managed business are not sufficient within today’s Volatile, Uncertain, Complex, and Ambiguous (VUCA) environment (Bennett & Lemoine, 2014; Euchner, 2013; Ganguly, 2013; Lawrence, 2013; Sullivan, 2012). The VUCA acronym has been used to describe the way organizations conduct business in the current environment (Ganguly, 2013; Horney, Pasmore, & O’Shea, 2010; Sullivan, 2012). It is used to explain, succinctly, the present external environment and its impact on the workplace; it also explains how the global economy and technological advances have impacted, and continue to impact how organizations conduct business (Bennett & Lemoine, 2014; Horney, 2010; Sullivan, 2012).

Organizations are responding in various ways to this newer business climate, including how they hire, promote, and train employees (Kouzes & Posner, 2012; Sullivan, 2012). It is not surprising to find one of the areas being evaluated in both research and business settings, is leadership effectiveness; a construct impacting this changing landscape (Euchner, 2013; Horney et al., 2010). Kouzes and Posner reply to the situation saying, “In uncertain and turbulent times, accepting that [leadership] challenge is the only antidote to chaos, stagnation, and disintegration. Times change,
problems change, technologies change, and people change. Leadership endures” (2012, p. 1).

In addition to the external VUCA environment, organizations are evaluating the internal constructs of employee engagement (EE) and organizational commitment (OC) (Grant, 2011; Kruse, 2014; Lederman, 2013; Meyer & Allen, 1997) as well as which leadership attributes, styles, and disciplines are most effective for higher EE and OC (Boyatzis & McKee, 2005; Clinebell, Skudiene, Trimonyte, & Reardon, 2013; Dale & Fox, 2008; Dunn, Dastoor, & Sims, 2012; Garg & Ramjee, 2013; Jackson, Meyer, & Wang, 2013).

Another internal construct impacting the support of organizations and employees is what some consider a change in the psychological contract between the organization and employee (Hughes & Palmer, 2007; Jha, 2011; Philipp & Lopez, 2013). Herriot, Manning, and Kidd (1997) defined psychological contract “as the perceived promises and reciprocal obligation of each part in the employee-employer relationship” (p.151). This unwritten agreement is challenging leaders to think, act and support retention initiatives differently (Boyatzis & McKee, 2005; Goleman, 1995; Goleman, 1998; Kouzes & Posner, 2012; Philipp & Lopez, 2013; Rousseau, 1990).

In today’s VUCA environment, organizations must find new ways to engage employees and build organizational commitment (Philipp & Lopez, 2013; Sullivan, 2012; Sutherland, 2010; Wasti & Onder, 2009; Wilson, 2010; Zopiatis, Constanti, & Theocharous, 2014). Both the external environment and the workplace, or internal environment, impact the way organizations position themselves for the future.
It is axiomatic that leaders impact employees’ engagement and commitment to the organization (Lederman, 2013; Mayer, Aquino, Greenbaum, & Kuenzi, 2012; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009; Meyer, 2009; Morrison, 2011; Posner & Kouzes, 1993; Ulrich, Zenger, & Smallwood, 1999). Voluminous numbers of papers and books have been published for the purpose of identifying and developing the competencies, styles, traits, or actions that lead to effective leaders; a consistent theme is that effective leaders have committed employees, while less effective or incompetent leaders have employees who are less committed to the organization (Clinebell et al., 2013; Goleman, 1995; Hogan, 1994; Kouzes & Posner, 2012; Lederman, 2013; Neubert, Wu, & Roberts, 2013). These studies posit a fluid dynamic between leadership, engagement, organizational commitment, and VUCA responsiveness.

Numerous studies have focused on facets and theories of leadership including skills, traits, behaviors, attributes, competencies, and transformational and transactional leadership styles (Bass, 1985; Boyatzis, 2014; Cole, 1999; Garg & Ramjee, 2013; Hess & Bacigalupo, 2013; Wilson, 2010). Articles and books have been published on antecedents and outcomes of leadership (Bester, Stander, & van Zyl, 2015; Boyatzis, 2008a; Boyatzis & McKee, 2005; Day, Gronn, & Salas, 2004; Goleman, 1995; Goleman, Boyatzis, & McKee, 2002; Kouzes & Posner, 1987, 2012; Ulrich, n.d.). Proposed antecedents that have gained popularity include emotional intelligence (Boyatzis, 1982, 2008a, 2014; Goleman, 1995, 1998a, 1998b; Goleman et al., 2002) and practices of exemplary leaders (Kouzes & Posner, 1987, 2007, 2012); frequently studied outcomes include organizational citizenship behavior, organizational commitment and employee
engagement (Bennett, 2011; Bratton, Dodd, Brown, 2011; Cherniss & Goleman, 2001; Sutherland, 2010; Thor, 2012).

Emotional Intelligence, defined by Goleman (1998) as “managing feelings so that they are expressed appropriately and effectively, enabling people to work together smoothly toward their common goals” (p. 7) has become increasingly popular as a measure for identifying potentially effective leaders, and as a tool for developing effective leadership skills (Palmer, Walls, Burgess, & Stough, 2001; Posner, 2013).

Published research reflecting the outcomes of effective leadership are extensive (Church, 1997; Dale & Fox, 2008; Jackson et al., 2013; Jha, 2011; Meyer & Allen, 1997; Meyer, Herscovitch & Topolnytsky, 2001). Two well-studied constructs are organizational commitment (OC) and organizational citizenship behaviors (OCB). Organizational commitment is defined by Allen & Meyer (1996) as “a psychological link between the employee and his or her organization that makes it less likely that the employee will voluntarily leave the organization” (p. 252). Organ (1988) defines Organizational Citizenship Behavior (OCB) as the discretionary effort an employee offers on behalf of organization. Both OCB and organizational commitment have been studied as potential outcomes of leadership (Jackson et al., 2013; Meyer & Allen, 1997; 2009; Philipp & Lopez, 2013).

In order to create the workplace culture that is positioned to respond to the external VUCA environment and support the focus of increased employee engagement and organizational commitment, companies/firms often seek to recruit and develop talent who can provide the direction, coaching, and mentoring needed to engage employees and to cultivate commitment and discretionary effort (Lederman, 2013; Higgs, 2002; Marques, 2008; Osterman & Hafner, 2009; Palmer et al., 2001). If emotional intelligence is one way to recruit and develop, self-awareness is a more specific area within emotional intelligence that may be further explored as it relates to leadership effectiveness. Self-awareness has been studied extensively (Palmer, 2014; Shahidi, 1994), since Duval and Wicklund propelled this topic in the 1970s (Duval & Wicklund, 1972). A search in the ProQuest Dissertation and Thesis A&I database located over 76,000 results for “gender and self-awareness” and over 62,000 for “self-awareness and leadership”. Self-awareness, within the construct of emotional intelligence is not as widely studied as it is in other disciplines. Boyatzis (2011) defines self-awareness as “recognizing one’s emotions and their effects” (p. 4); and self-awareness “concerns knowing one’s internal states, preferences, resources and intuitions” (p. 5).

**Statement of the Problem**

Literature suggests that as organizations strive to succeed in this high tech, global economy, Human Resources (HR) professionals need to recruit and develop leaders who cultivate employee commitment and engagement (Lawrence, 2013; Lederman, 2013; Sullivan, 2012). Human Resource Development (HRD) professionals are being challenged to provide the right leadership development strategies and
programs to ensure leaders are engaging and empowering their workforce with the overarching goal of delivering results that drive organizational performance (Ackley, 2010; Bass, 1985; Boyatzis, 2014). Organizations may need a newer paradigm that evaluates leaders’ performance to impact positive workplace outcomes. Emotional Intelligence (EQ) studies support the need to develop leadership EQ competencies (Bennett, 2011; Bester, Stander, & van Zyl, 2015; Boyatzis, 2008a; Hess & Bacigalupo, 2013). Practitioners often overlook this construct in the recruiting processes and training programs. There is a gap in the literature as it relates to self-awareness within the EQ research; there has been limited research relating to self-awareness and its relationship to leadership effectiveness.

**Statement of the Purpose**

Organizations generally recognize the role leadership and emotions play in employee and organization performance. Organizations, therefore, may seek to validate interventions that are effective in the development of leaders and their emotional awareness. The popularity of emotional intelligence in research and as an HR strategy is extensive, especially for leaders; however, given the limited evidence around self-awareness, considered by experts to be a foundational competency of emotional intelligence (Boyatzis, Goleman, & Rhee, 2000), this correlational analysis was conducted to better understand the relationship of self-awareness and leadership effectiveness. The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. It also intended to assist HR and HRD professionals manage leadership development interventions in response to today’s workplace environment.
Research Questions

The research questions identified to address the purpose of this study were:

1. What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory Self (LPI-SELF) scores of experienced leaders?
   a. Is there a significant difference in the relationship by gender?
   b. Is there a significant difference in the relationship by education level?
   c. Is there a significant difference in the relationship by amount of time in a leadership role?

2. What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?

Significance of the Study

Leaders are challenged to recruit, retain, and engage employees (Dunn et al., 2012; Ganguly, 2013, Hogan, 1994; Jackson et al., 2013). Emotional Intelligence (EQ) has been cited as a construct that differentiates exceptional results in leaders (Goleman, 1995, 1998a; Kirkland, 2011) as it relates to recruiting, retaining, and engaging. There have been numerous empirical studies conducted on EQ (Hess & Bacigalupo, 2013; Higgs, 2002; Palmer et al., 2001), but few directed at the impact of self-awareness, within the EQ field. Yet, many theorists believe self-awareness is the foundational principal of EQ (Boyatzis, 2011; Boyatzis & McKee, 2005; Cherniss &
Goleman, 2001; Goleman, 1995, Osterman & Hafner, 2009). With empirical research, organizations will be better able to direct appropriate resources in their developmental strategies. Understanding the impact of highly self-aware leaders may support the decisions, specifically if there is scientific research linking higher self-awareness with organizational outcomes, as measured by exemplary leadership practices.

This research may allow practitioners to more clearly understand if self-awareness development interventions may correlate with improvements in leaders’ effectiveness. The identification of this relationship may help HR/HRD professionals to determine what learning activities may be used to cultivate a more engaged and committed workforce, and address VUCA.

**Limitations of the Study**

This study had certain inherent limitations which are discussed below.

**Generalizability.** In order to enhance population validity, participants were recruited by snowball sampling methods. The researcher used a diverse network of professionals (ambassadors) to participate and to recruit other leaders. The ambassadors in this study were all professionals based in the United States. Due to this, assessment was restricted to U.S. based leaders, and generalizability is therefore restricted to United States and cannot be generalized globally.

**Selection of direct reports.** Neither leaders nor their direct reports were randomly selected. The experienced leaders chosen for this study were selected using a snowball chain sample of the researchers’ professional network. This network sent emails to experienced leaders in their network. The direct reports were determined by individual leaders. Therefore if the leaders have more than four direct reports, they
could potentially select those who they believe would score them the most advantageously.

**Definition of Terms**

Within this research, these terms were used according to the following definitions:

*Ambassador.* An ambassador is defined as a professional with at least 10 years of experience. The ambassadors were used to recruit Experienced Leaders for this research, and may have participated in the research if they meet the Experienced Leader criteria.

*Direct Report.* A direct report is an individual reporting directly to the leaders in this study; synonymous with subordinate.

*Emotional Intelligence (EQ).* As defined by Goleman (1988), the capacity for recognizing own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships.

*Experienced Leader (EL).* An experienced leader (EL) is defined as a leader participating in this study, who (a) has been in leadership roles (as a middle manager, senior manager, or executive) for at least five years, and (b) has directed/led the work of two or more individuals at one time, and (c) can recruit at least four direct reports who have worked for them over the past five years to participate in the study.

*Leadership Effectiveness.* For the purpose of this study, Kouzes and Posner’s (2012) *Five Practices of Exemplary Leadership* model was used to reflect leadership effectiveness. These five practices include:
1. Modeling the way. Leaders are clear on values and align actions with these shared values.

2. Inspiring a shared vision. Leaders create vision of future and inspire that common vision in others.

3. Challenging the process. Leaders look opportunities, challenge the status quo, and look for innovative ways to improve.

4. Enabling others to act. Leaders foster collaboration by building trust and cultivating relationships and they develop competence in their team.

5. Encouraging the heart. Leaders show appreciation for individual efforts and celebrate successes (Kouzes & Posner, 2012).

**Psychological Contract.** Psychological contract is defined as the perceived promises and reciprocal obligations of each party in the employee-employer relationship (Herriot et al., 1997).

**Organizational Citizenship Behavior (OCB).** OCB is defined as the discretionary effort an employee offers on behalf of organization (Organ, 1988).

**Organizational Commitment (OC).** OC is defined as a psychological link between the employee and his/her organization that makes it less likely that the employee will voluntarily leave the organization (Allen & Meyer, 1996).

**Self-Awareness.** When creating the Emotional and Social Competency Inventory (ESCI) assessment, Boyatzis (2011), defined this construct: “Recognizing one’s emotions and their effects” (p. 4); and it “concerns knowing one’s internal states, preferences, resources and intuitions” (p. 5).
Organization of Study

This study is organized into five chapters. Chapter 1 introduces the study with problems, purpose, significance, definitions, delimitations and limitations, and specific research questions of the study. Chapter 2 includes relevant literature review presenting the knowledge in literature to date. Each of the study constructs, through a review of the literature, is presented with an introduction to the constructs and the current unresolved issues/challenges. Chapter 3 is an outline of the methods for this research. This chapter includes sections on the research design, population and sample, instrumentation, data collection, data analysis and a summary. Chapter 4 provides the research questions, participants and details on response rates, demographic characteristics of leaders, analyses the leadership effective and self-awareness scores, and observations. Chapter 5 includes summary of the study, conclusion, implications and recommendations for future research.
Chapter 2  
Review of the Literature

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. This chapter provides a summary of the relevant literature relating to leadership, the five practices of exemplary leadership, self-awareness, demographics in leadership and emotional intelligence research, and a summary.

Leadership

Leadership is a widely studied and published subject in business and academia (Bass, 1985; Bennett, 2011; Boyatzis, 1982, 2014; Cole, 1999; Posner, 2013). It remains relevant for various reasons that include both the external and internal workplace conditions. The external environment has been described often as a Volatile, Uncertain, Complex, and Ambigious (VUCA) economy; and it helps to describe the environment in which organizations are challenged to conduct business (Ganguly, 2013; Horney, Pasmore, & O’Shea, 2010; Sullivan, 2012). VUCA is used to explain, succinctly, the current external environment and its impact on the workplace; explaining how the global economy and technological advances have impacted, and continue to impact how organizations conduct business (Bennett & Lemoine, 2014; Euchner, 2013; Sullivan, 2012).

The Volatile, Uncertain, Complex, and Ambiguous environment is one consideration impacting leadership today. There are also internal constructs that are
demanding a different leadership approach: Organizational commitment (OC), employee engagement (EE), psychological contracts, organizational citizenship behaviors (OCB), as well as, an aging workforce. These constructs impact organizational performance (Bennett, 2011; Grant, 2011; Hamilton & Kathyrn, 2012, Herriot et al., 1997; Meyer, 2009; Meyer & Allen, 1991, 1997). Research provides extensive evidence that leadership actions, behaviors, practices, impact these consequences (Clinebell, Skudiene, Trijonyte, & Reardon, 2013; Dale & Fox, 2008; Dunn et al., 2012; Garg & Ramjee, 2013; Goleman, 1995; Goleman, 1998a; Hogan, 1994).

Organizations may need to view leadership in a new way that not only monitors workplace outcomes, but also measures how leaders influence individuals, ensure confidence and positive culture, as well as measuring the level to which they build trust and shared values (Caldwell, Hayes, & Long, 2010; Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010). Effective leadership within this new paradigm is the ability to motivate others through trust, compassion, caring, and connectedness (Gardner, Cogliser, Davis, & Dickens, 2011).

The popularity of Emotional Intelligence (EQ) literature as it relates to leadership and organizational performance has grown over the past quarter century, in both academic and organizational settings (Ackley, 2010; Bennett, 2011; Boyatzis, 2008b; Boyatzis & McKee, 2005; Bratton et al., 2011; Cherniss & Goleman, 2001; Goleman, 1998a, 1998b; Higgs, 2002; Kirkland, 2011; Thor, 2012). However, the construct of self-awareness, considered a foundational competency within emotional intelligence, has not been researched as extensively as it relates to leaders, their competencies,
practices, or effectiveness. It is posited that self-awareness is needed to cultivate other emotional intelligence competencies (Boyatzis, 2008a; Cherniss & Goleman, 2001; Goleman et al., 2002).

Leadership, in spite of all the research, is still not understood in terms of antecedents. *The Five Practices of Exemplary Leadership®* (Kouzes & Posner 1987, 2007, 2012; Posner & Kouzes, 1993) is a model that reflects behaviors and actions needed for exemplary leadership. Kouzes and Posner’s research, which spans over thirty years, posits that leadership is vital because it significantly impacts employees’ engagement, commitment to the organization, and performance (2016).

Even the definition of leadership is not consistently agreed upon by experts, researchers and business practitioners. Ulrich (n.d.) notes in his “What is Leadership” whitepaper, that when he was asked to write a preface of a book on leadership, it was not straightforward. He referred to leadership as a “hodgepodge of ideas” and “concept clutter”, and provided clarity in this point:

> The various leadership authors had written articles on far ranging topics such as trust, authenticity, servant leaders, tough-minded leaders, the difference between managers and leaders, effective conversations, power, decision-making, judgment and myriad other topics. (p. 1)

Ulrich (n.d.) writes that in the end, his preface compared leadership to alchemy because authors were striving to transform "lead into gold" when writing about leadership. Other researchers and authors support the concept that leadership has many facets. According to Cole (1999), after decades of leadership research there are massive amounts of information without a cohesive understanding of the subject. There are various theories, philosophies, and topics in leadership research. Bass and Avolio (1997) classified leadership into three styles: transformational, transactional, and
laissez-faire. Jackson et al. (2013) note transformational leadership is similar to charismatic leadership.

Transformational leadership and team leadership are two common constructs used in research (Burke, Granadox, & Salas, 2011; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Often when leadership is defined as transformational, it relates less to skill or trait, and more to ability to influence. Tierney and Foster (1989) write that leadership is expected to create a culture based on morals and it is not a trait, skill, or science. Team leadership is defined by Burke et al. as “an enactment of the affective, cognitive, and behavioural processes needed to facilitate performance management . . . and team development” (2011, p. 338). Day et al. (2004) write that team leadership is different than other leadership processes and goals. These various theories support that leadership is a widely studied construct without one acceptable definition.

Kouzes and Posner’s (1987, 2012) definition of transformational leadership involves visioning, challenging, consideration and acting as examples. They chose to distinguish activities that were most often found in situations where leaders excelled. Based on their studies, they identified five practices that reflect exemplary leadership. It is these practices that make up their well-known Leadership Challenge texts and assessments.

It is axiomatic that leaders impact employees’ engagement and commitment to the organization (Kouzes & Posner, 1987; Lederman, 2013; Mayer et al., 2012; Mayer et al., 2009; Meyer, 2009; Morrison, 2011; Ulrich et al., 1999). An abundance of papers and books have been published for the purpose of understanding the competencies, styles, traits, or actions that lead to effective leaders; with the posit that effective leaders
have committed employees, while less effective and/or incompetent leaders have employees who are less committed to the organization (Clinebell et al., 2013; Goleman, 1995; Hogan, 1994; Lederman, 2013; Neubert et al., 2013; Kouzes & Posner, 2012). These studies support a relationship between leadership and various outcomes related to engagement, organizational commitment, organizational citizenship behaviors and VUCA responsiveness.

Among the papers and research on leadership, there is no one agreed-upon definition of leadership; nor is there one way to determine effectiveness in leadership since it is often determined by situation (Blanchard, Zigarmi, & Nelson, 1993). The construct leadership encompasses so many types of employees, that what might be needed for one leader may be a detriment to another. As an example, a business leader may be purposeful in obtaining support, ideas, encouraging team members to challenge proposed methods throughout an entire project/program; whereas a military leader in combat may require immediate action and commitment from troops without collaboration on options. The approach would differ based on situation.

Human Resource and Human Research Development professionals are reminded that leaders more often disengage their direct reports more than they engage them; managers are “found to be incompetent 60-75% of the time” as they lack in the role of inspiring and engaging others (Hogan, 1994; Lederman, 2013). HR and HRD leaders are often charged with employee engagement and employee satisfaction initiatives; with this as a frequent focus, they are reminded that leaders’ actions directly impact the employees in either a negative or positive way (Jackson et al., 2013; Kirkland, 2011). Organizations therefore may choose to respond by creating strategies
to recruit, retain, and develop leaders who positively impact their direct reports; and HRD professionals may then be challenged with ongoing leadership development that supports positive results of individuals and teams.

As organizations respond to the VUCA environment, which demands new skills of leaders (Sullivan, 2012), HR and HRD may find that they are supporting new initiatives including employee flexibility, change management, speed in responsiveness. Within many organizations, the VUCA concept is impacting the hiring, training, and strategic planning practices/processes (Euchner, 2013; Horney et al., 2010; Lawrence, 2013). The companies that recognize this immediate need may be better positioned to compete because the skills and talents defined in the hiring and training of leaders support this; compared to employers that are only hiring or developing based on technical skills.

Five Practices of Exemplary Leadership

For over 30 years, Kouzes and Posner have researched leaders who have been labeled ‘exemplary’ in various settings and situations. In their most recent edition of *The Leadership Challenge* (2012), the authors write:

Although the context of leadership has changed dramatically since we first began our research thirty years ago, the content of leadership has not changed much at all. The Five Practices framework has passed the test of time. Our research tells us that the fundamental behaviors and actions of leaders have remained essentially the same and are as relevant today as they were when we first began our study of exemplary leadership. (p. 19-20)

The five exemplary leadership practices identified by Kouzes and Posner (2012) that have been studied for decades are:

1. *Modeling the way.* Leaders are clear on values and align actions with these shared values.
2. *Inspiring a shared vision.* Leaders create vision of future and inspire that common vision in others.

3. *Challenging the process.* Leaders look opportunities, challenge the status quo, and look for innovative ways to improve.

4. *Enabling others to act.* Leaders foster collaboration by building trust and cultivating relationships, and they develop competence in their team.

5. *Encouraging the heart.* Leaders show appreciation for individual efforts and celebrate successes (Kouzes & Posner, 2012).

**Leadership effectiveness.** Over the past decades numerous studies have been conducted and papers written to discuss and compare EQ and organizational or leadership effectiveness (Affandi & Raza, 2013; Goleman, 1998b; Palmer et al., 2001; Thor, 2012). Measurements of effective leadership vary, with some outcomes focusing on Organizational Citizenship Behavior (OCB), Organizational Commitment (OC), and employee engagement (Jackson et al., 2013; Meyer & Allen, 1997; Meyer et al., 2001; Philipp & Lopez, 2013; Thor, 2012). Several studies show that high emotional intelligence leads to increased employee motivation, financial results and productivity (George, 2000; Goleman, 1995; Tang, Yin, & Nelson, 2010).

Two popular measures of leadership effectiveness used in academic research are the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1997) and the Leadership Practices Inventory (LPI) (Kouzes & Posner, 2007, 2013a, 2013b). The MLQ has been validated to measure transformational and transactional leadership. Kouzes and Posner’s (2007, 2012) LPI measures five practices related to leaders who excel in specific situations.
Just as there is no one definition of leadership, there is no one agreed upon definition of leadership effectiveness. And, just as there are an abundance of studies that have focused on various facets and theories of leadership including skills, traits, behaviors, attributes, competencies, and transformational and transactional leadership styles (Bass, 1985; Boyatzis, 2014; Cole, 1999; Garg & Ramjee, 2013; Hess & Bacigalupo, 2013; Wilson, 2010), there are diverse outcomes that are used to evaluate level of effectiveness. Therefore, actually defining leadership effectiveness will need to be clear in any study. Of utmost importance for researchers and practitioners is the belief that there is little evidence in how one might develop leaders to be most effective. Research indicates a strong link between emotional intelligence and transformational leadership (Barbuto & Burbach, 2006), but developing effective programs is not as clear. In the 2015 book, *Neuroscience for Leadership*, the authors write that research has provided little hard evidence about what leadership products work and/or why some development programs work while others do not (Swart, Chisholm, & Brown; 2015). Boytzis (2008b) reminds us that other intrinsic issues also impact leadership development initiatives. He is clear that adult learning principles must be considered in evaluating effectiveness of leadership development practices in that only adults who want to develop leader characteristics will benefit; and that many people participate in learning activities to satisfy other people’s expectations. These two researchers are concise in clarifying the complexity of leadership, their effectiveness, as well as the effectiveness of learning initiatives. They reinforce that many factors play a role when evaluating leadership effectiveness and development interventions.
Self-Awareness

Self-awareness has been studied in various sciences and areas of research: psychology, social sciences, motivation, leadership, etc. since the early 1970s. Duval and Wicklund’s theory reflects an external directed view, *subjective self-awareness*, or an internal directed view, *objective self-awareness*. It is the objective self-awareness that leads to contemplation and reflection (Duval & Wicklund, 1972). De Silva (2004) believes it is a critical aspect of psychology that influences behavior. Palmer (2014) claims self-awareness requires self-reflection of assumptions and the impact of those assumptions on others. Researchers have found gender differences in self-awareness and the environments that increase levels of awareness (De Silva, 2004; Shahidi, 1994).

**Overview of emotional intelligence (EQ).** A discovery of self-awareness literature cannot be presented without first addressing the construct under which self-awareness often falls. Goleman (1998b) defines emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships” (p. 317). There are several prominent theorists who lead research on emotional intelligence. Each has been influenced by Gardner, who in the early 1980s developed the theory of Multiple Intelligences (1983); two of Gardner’s seven intelligences refer to *personal* intelligence. From this, three models of emotional intelligence were initially formed, and are still relevant in research. Each of these models, although different, posit that EQ is a discrete intelligence; it is different than IQ (Bar-On, 2006; Salovey & Meyer, 1990; Goleman, 1995). Salovey and Mayer (1990) created the Mayer-Salovey model of EQ.
This model is ability-based; it defines EQ as the ability to perceive, understand, manage and use emotions to facilitate thinking (Salovey & Mayer, 1990). Bar-On (2006) defines EQ as a cross-section of interrelated emotional and social competencies and skills that impact intelligent behavior. Research, books and papers refer to various EQ definitions and measurements presented by Bar-On and Mayer-Salovey (Boyatzis, 2011). But for the purpose of this research, EQ is defined according to Goleman’s definition (1998b); Goleman created a competency-based model.

Goleman grouped EQ competencies in his early work (1998b), and has changed the groupings over the years as research evolved (Boyatzis & Goleman, 2001; Boyatzis, 2007; Goleman et al., 2002). For several years he and his colleagues grouped the EQ competences into Personal and Social categories as presented in *Primal Leadership* (Goleman et al., 2002) and *The Emotionally Intelligent Workplace* (Cherniss & Goleman, 2001). For both the Personal and Social areas, the authors posit there is a need for awareness of emotions, feelings, thoughts, and beliefs; and an ability to manage responses to, and motivation for improvement in emotional competencies. The list of the clusters and related competencies that support the Personal and Social model in the authors’ two groupings are listed in Table 1.

More recently, however, Goleman & Boyatzis changed the competencies within the groupings after analysis of numerous research findings (Boyatzis, 2007). The Emotional Competency Inventory (ECI) is the Goleman/Boyatzis assessment that measures EQ using the clusters/competencies related to Personal and Social groupings. When they analyzed validity of the ECI, they made changes to the clusters and definitions. The ECI’s groupings/clusters were redesigned into Emotional and
Social Competencies (ESCI) instead of the Personal and Social groupings. Today, both the ECI and the ESCI are used to measure EQ.

Table 1

*Emotional Intelligence Competency Clusters--Pre Emotional and Social Competency Inventory*

<table>
<thead>
<tr>
<th>Personal Competence</th>
<th>Social Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Awareness</strong></td>
<td><strong>Relationship Management</strong></td>
</tr>
<tr>
<td>Emotional self-awareness</td>
<td>Inspirational leadership</td>
</tr>
<tr>
<td>Accurate self-assessment</td>
<td>Influence</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>Developing others</td>
</tr>
<tr>
<td></td>
<td>Change catalyst</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td><strong>Social Awareness</strong></td>
</tr>
<tr>
<td>Emotion self-control</td>
<td>Building bonds</td>
</tr>
<tr>
<td>Transparency</td>
<td>Teamwork and collaboration</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>Empathy</td>
</tr>
<tr>
<td>Initiative</td>
<td>Organizational awareness</td>
</tr>
<tr>
<td>Optimism</td>
<td>Service</td>
</tr>
</tbody>
</table>

*Note: Source: Cherniss & Goleman (2001)*

This new cluster groups Emotional competencies: Self-Awareness, Self-Management, and Social Awareness; and Social competencies: Relationship Management. The history of the clusters/grouping is important for researchers since many of the related papers, books, research use older definitions. Since 2007, with the development of the ESCI, researchers can choose between two assessments, and therefore will evaluate different competencies within groupings. Table 2 reflects Boyatzis’ most recent competencies and clusters (Boyatzis, 2007, 2011).
Table 2

*Emotional Intelligence Competency Clusters--Post Emotional and Social Competency Inventory*

<table>
<thead>
<tr>
<th>Emotional Competence</th>
<th>Social Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Awareness</strong></td>
<td><strong>Relationship Management</strong></td>
</tr>
<tr>
<td>Emotional self-awareness</td>
<td>Conflict management</td>
</tr>
<tr>
<td></td>
<td>Coach and mentor</td>
</tr>
<tr>
<td><strong>Social Awareness</strong></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>Influence</td>
</tr>
<tr>
<td>Organizational awareness</td>
<td>Inspirational leadership</td>
</tr>
<tr>
<td></td>
<td>Teamwork</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td></td>
</tr>
<tr>
<td>Achievement orientation</td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
</tr>
<tr>
<td>Emotional self-control</td>
<td></td>
</tr>
<tr>
<td>Positive outlook</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Source: Boyatzis (2011)

Emotional intelligence as a construct was brought into business programs after the success of Goleman’s (1995) *Emotional Intelligence: Why it Can Matter More than IQ*. Since then, academic research has been extensive as have the number of leadership books (Cherniss & Goleman, 2001; Goleman, 1998b; Goleman, Boyatzis & McKee, 2002; Higgs, 2002; Wilson, 2010). The relationship between exceptional leadership and emotional intelligence is often explored with many of the social competencies reflecting optimal leadership traits (Cherniss & Goleman, 2001; Goleman, 1998a). Specifically, the studies link high emotional intelligence with job success (Cherniss & Goleman, 2001; Goleman, 1998b) and optimal transformational leadership practices (Kouzes & Posner, 2012).

In general, what these authors and other EQ theorists state is those that have a high awareness of oneself and others, and are able to appropriately and optimally
respond to specific situations, including inner thoughts and interactions with others, have a high EQ; and people with high EQ will be more personally and professionally competent, confident, effective, and happy (Boyatzis, 1982, 2014; Cherniss & Goleman, 2001; Goleman, 1998a; Swart et al., 2015). Goleman et al., (2002) state that emotional intelligence contributes to over 80% of the competencies that differentiate exceptional leaders from average leaders.

Organizations have been utilizing emotional intelligence interventions for recruitment, retention strategies and development of leaders (Goleman, 1998b; Goleman et al., 2002). Most often, the research that leads HR/HRD professionals to utilize EQ as an intervention reflects the full scope of emotional intelligence, rather than individual competencies or clusters, such as self-awareness, self-management, social awareness and relationship management. Boyatzis and Goleman (Goleman, 1998a, 1998b; Goleman et al., 2002) grouped specific competencies into clusters after research showed similarities in results. But, according to several emotional intelligence researchers/theorists, self-awareness is the foundational competency upon which others are built (Goleman, 1998a, 1998b; Goleman et al., 2002; Haskett, 2003).

Ackley (2010) provides recommendations for HRD professionals to introduce EQ training and assessments within the workplace. She summarizes the problem of promotions to leadership roles within organizations without the appropriate support and development of these newly promoted leaders.

Many of these talented people have attained high positions due largely to their intelligence and technical business skills. But they may rub people the wrong way or bring people down with their lack of optimism. They may be impulsive or inflexible. They may not be able to express clearly what they need from people or be able to read what people need from them. People may not find them easy to interact with, avoiding them as much as possible. (p. 23)
Some of Ackley’s (2010) recommendations to develop leadership talent include providing voluntary EQ training and focusing training on meaningful issues. These recommendations take into account a different approach to Training and Development (T&D) strategies, in that the work is internal and reflective; development interventions are personalized as well as specific to individual positions. Goleman (1998b) and Boyatzis (2014) propose the need for inner work and reflection as a means to improve leadership competencies. This paradigm shift may require Human Resource leaders and Human Resource Development professional to understand EQ and incorporate EQ principals into the organization.

Organizations, in response to the VUCA environment and the internal constructs, are designing leadership strategies and interventions to compete in this current workplace environment, for the purpose of positive organizational results. “Effective leaders get results” (Ulrich et al., n.d., p.1). Many of the organizations in this endeavor are utilizing emotional intelligence as a construct for recruiting, retaining and developing leaders because the skills identified in VUCA environments, which include agility, change catalyst, adaptability, teamwork (Euchner, 2013; Ganguly, 2013) reflect the social competency clusters of EQ (Boyatzis et al., 2000). Emotional Intelligence literature supports the need to develop leader EQ competencies (Boyatzis, 2008b; Boyatzis, 2014; Bratton et al., 2011; Goleman, 1995; Goleman et al., 2002; Hess & Bacigalupo, 2013; Tang et al., 2010).

Regardless of the setting, organizations of all types are finding the importance of effective leadership development within their specific learning environment (Haskett, 2003; Horney et al., 2010; Kouzes & Posner, 2012). Creating programs that support the
development of employees and/or learners, facilitating learning that positively impacts the knowledge, skills, and abilities of the employees/learners, and focusing on emotional intelligence competencies within these programs may provide greater opportunity for long-term organizational success (Cherniss & Goleman, 2001; Church, 1997; Cole, 1999).


1. *Emotional Self-awareness* reflects the importance of identifying one’s own feelings and recognizing how these feelings impact performance;

2. *Accurate Self-assessment* deals with an individual’s recognition of one’s own strengths and weaknesses;

3. *Self-confidence* is the sense of self-worth and capabilities.

Self-awareness is not limited to research and the business arena. In Yoga, self-awareness is a primary focus as individuals strive to see life situations as neutral. It is believed that this non-judgmental view removes stress and aligns mind, body, spirit (Butera, 2015). It a construct that is part of lifetime learning. In a personal interview with Butera in 2015, he defined two aspects of self-awareness:

One includes the understanding of one’s own disposition, history, nature, body type, preferences, and beliefs; in a completely objective manner. The second
includes an understanding of the totality of life, the spiritual essence of nature and the universe. (R. Butera, personal communication, September 15, 2015)

Researchers support the concept of a more creative learning approach for organizations striving to enhance self-awareness in the workplace. Palmer (2014) believes this process requires a self-focused and self-reflective mindset, which may lead to self-discovery. Self-awareness is the practice of reflecting on and accurately assessing one’s own behavior and skills as they are manifested in workplace interactions (Church, 1997). Higgs (2002) has described self-awareness as “the awareness of our own feelings and the ability to recognize and manage them” (p. 196).

Cherniss and Goleman (2001) define three competencies related to self-awareness: Emotional self-awareness, accurate self-assessment, and self-confidence. They write that emotional self-awareness reflects the importance of identifying one’s own feelings and recognizing how these feelings impact performance. Accurate self-assessment deals with an individual’s recognition of one’s own strengths and weaknesses. They note that leaders with a high degree of the third competency, self-confidence, differentiate great leaders from average leaders.

This self-awareness cluster of competencies is considered the foundational set of competencies needed to excel in the other clusters: self-management, social awareness and relationship management (Boyatzis & McKee, 2005; Cherniss & Goleman, 2001; Goleman, 1995).

Boyatzis and McKee (2005) theorize that ineffective leadership is due to lack of self-awareness, rather than general inability. They posit that emotional skills are needed to address complex situations are tapped into less often by leaders who possess lower self-awareness (Boyatzis & McKee, 2005). Enhancing self-awareness is
a continuous process central to effective school leadership and change processes (Osterman & Hafner, 2009). There is a need to train school leaders to recognize the role self-awareness plays in overall performance, as there is a need to develop exemplary leadership skills to support organizational goals and objectives.

In 2007, Boyatzis redefined self-awareness when developing the Emotional and Social Competency Inventory (ESCI); he reduced the number of competencies relating to self-awareness, and described it as “concerns knowing one’s internal states, preferences, resources and intuitions” (Boyatzis, 2011, p. 5). Only recently has the construct, self-awareness become a topic for empirical research. Quantitative research is limited. Despite the significance of EQ research relating to performance, there is minimal research on self-awareness as it relates to leadership effectiveness.

Self-awareness, as a construct, also does not have one agreed-upon definition. This construct varies within and outside the scope of emotional intelligence (Butera, 2015, Wilson, 2010). Self-awareness, as defined within the yoga philosophy, is a long-term development process which takes continued focus and discipline (Butera, 2015). This ongoing process is supported by Wilson (2010) in his self-awareness research. He writes that mindfulness and self-awareness are the most difficult adult development areas to change because they require an intentional, sustained commitment to learning. He is clear that lasting change is only successful with a committed, regular practice, and a focused intention on change. This level of commitment may or may not be addressed in typical development interventions of leaders.

Additionally, the extensive research on EQ shows there may be differences in self-awareness across cultures. Tang et al. (2010) found the need for self-awareness
as a condition for emotional intelligence seems to differ based on culture. Based on the global economy, there may not be a one solution focus for global talent managers.

The newer scientific practice of brain scans within neuropsychology is changing the face of business discussions (Swart et al., 2015). These researchers write that newer technology is starting to show brain links of self-awareness, emotions, mindfulness, stress, cognition, decision-making and other leadership activities. They believe that changes will be made in the way we measure self-awareness, emotions, mindfulness, etc. as it relates to business practices. Newer scanning equipment, like functional Magnetic Resonance Imaging (MRI) scanners may be a link in interpersonal and intrapersonal skill development.

Demographics in Leadership and Emotional Intelligence Research

The popularization of both emotional intelligence and leadership in business and academia has provided opportunity for researchers to study differences in gender, education levels, leadership role, and time in position; as well as in other demographics (Ashley, 2009; Dawson, Ho, & Kauffman, 2012; De Silva, 2004; De Smet, 2003; Graybeal, 2015; Mishra & Das Mohapatra, 2010; Posner, 2010; Shahidi, 1994). Ashley found results that were unexpected and may have been caused by a small sample. The only correlation in Ashley’s results between age, gender, work experience and self-awareness was as age increased, self-awareness decreased. Graybeal (2015) noted in her research that gender did not make a difference in the student leaders’ performance.

De Silva (2004), while studying various forms of self-awareness manipulations, found independent manipulations effective for both genders, whereas interdependent manipulations were effective only with male participants. Shahidi (1994) found
significant effect of gender on self-awareness; females were more self-focused, they wrote more, and they were more negative in their tone. De Smet (2003), when researching opportunity costs of self-awareness expected to find no effects from a number of variables, including gender, on self-awareness. However, the researcher found significant interaction effects for gender and self-awareness. Men performed better on three leadership effectiveness scales when they were rated low on self-awareness; women performed high in one leadership effectiveness scale when they scored high on self-awareness.

Posner (2010) provided evidence that demographic variables showed no significance in terms of engagement and organizational commitment, but level of position (e.g., supervisor vs. executive) had a large impact on how closely the leader's perception of their own leadership practices matched those of his/her direct reports. The higher up in the chain of command, the more the difference in the leader's perspective from his/her subordinates. In other words, executives are less in tune with how they are perceived, than the lower level managers. Dawson, Ho, and Kauffman (2012) conducted research on top information officers; they provided results regarding individual characteristics: education levels, gender, and time in role. The researchers found evidence that gender did not influence the executives' own tenure, but significantly impacts others' tenure within the organization.

In terms of effective leadership impacting performance of organization, Posner (2013) provided findings that gender and age had no statistical significant differences in their own leadership practices reporting. Mishra and Das Mohapatra (2010) researched emotional intelligence and showed only work experience correlated to emotional
intelligence scores. The more experienced leaders scored higher on emotional intelligence assessments.

The interest in various demographic characteristics is evident in research. This research continues to support the desire for information relating to gender, level of leadership, and education.

Summary

Leadership effectiveness impacts business performance. The Five Practices of Exemplary Leadership (Kouzes & Posner 1987, 2007, 2012; Posner & Kouzes, 1993) is a model that reflects behaviors and actions needed for exemplary leadership, and is used in research to measure leadership effectiveness.

Self-awareness is considered the foundational construct of emotional intelligence, a topic that has been researched for over 20 years. There is limited quantitative research relating to self-awareness.

Given the limited research about self-awareness and leadership effectiveness, this correlational quantitative study was conducted to better understand this relationship. This study may provide useful information to determine relationship, direction, and strength of self-awareness to leadership effectiveness, as defined by Kouzes and Posner’s (2012) Five Practices of Exemplary Leadership.
Chapter 3

Methods

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. This chapter presents the research methods and procedures that were used to conduct the study and to evaluate the results. Specifically this chapter provides details that describe the research design, population and sample, instrumentation, data collection, data analysis along with a summary. As part of the data collection section, management of ethical concerns was addressed.

Research Design

The focus of this research was to determine the direction and strength of the relationship between self-awareness in leaders and their effectiveness within their leadership roles. It has been posited that effective leaders create a workplace environment that responds appropriately to external VUCA conditions and internal engagement and organizational commitment initiatives (Euchner, 2013; Ganguly, 2013; Sullivan, 2012). But, at the time of this research, there was limited knowledge available about self-awareness as a potential antecedent to effective leadership practices.

This study employed a correlational research design. The researcher identified independent variables and looked for direction and strength of relationship between these variables. The independent variables in this study were continuous and were not manipulated.
The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. Three commercially available, well-established, validated research assessments were used to measure the variables in the following questions.

**Research Questions.** This study attempted to answer the following research questions:

1. What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory Self (LPI-SELF) scores of experienced leaders?
   a. Is there a significant difference in the relationship by gender?
   b. Is there a significant difference in the relationship by education level?
   c. Is there a significant difference in the relationship by amount of time in a leadership role?

2. What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?

**Variables.** The variables in this study were leaders’ self-awareness, gender, education level, years in leadership role, and leadership effectiveness (as was reviewed by both the leader, SELF, and his/her direct reports - OBSERVER). Leadership effectiveness was the dependent variable, whereas the other variables were independent.
**Self-awareness.** Self-awareness is defined by Boyatzis (2011) as “recognizing one’s emotions and their effects” (p. 4); and it “concerns knowing one’s internal states, preferences, resources and intuitions” (p. 5).

The Emotional and Social Competency Inventory (ESCI) was created by The Hay Group, in conjunction with McClelland Center for Research and Innovation and in partnership with Drs. Boyatzis and Goleman, as a way to measure behaviors associated with emotional intelligence (EQ) (Boyatzis, 2007). Self-awareness is one cluster within the construct of emotional intelligence.


Other variables in this research reflect demographics. They included Leader’s Gender (male, female, other); Leader’s Highest Education Level (no college degree, associate degree, undergraduate degree, graduate/post graduate degree); Leader’s Years in Leadership Role (5-10, 11-20, more than 20). There was no designation of less than five years in leadership role because the research is specific to Experienced
Leaders. These demographic variables were collected in Qualtrics, an approved third-party survey platform, and analyzed to measure if there were any significant statistical differences in the specific demographics.

Population and Sample

Non-probability convenience sampling was used. The population for this study included individual leaders within various types of organizations who: (a) have been in a leadership role (as a middle manager, senior manager, or executive) for at least five years; and, who regularly directed/led the work of two or more individuals at one time; and, was able to recruit at least four direct reports (a subordinate or a person who reports directly to the leader) who have worked for them for at least two years at some point over the past five years, at time of study.

The sample was obtained using a snowball chain-sample method. The researcher had a broad network of contacts in various professional roles, and recruited ambassadors from this network. Ambassadors then recruited experienced leaders (EL) to participate in study. According to Gall, Gall, and Borg (2007), using this method is appropriate for well-situated individuals to identify other appropriate individuals from their own network.

The experienced leaders rated themselves using two assessments (ESCI and LPI-SELF) and were also rated by four or more direct reports, using two assessments (ESCI and LPI-OBSERVER). The ESCI was designed as a 360-degree instrument, and therefore, only one instrument was used by both the EL and their direct reports. The LPI was designed to be used individually (SELF), and/or by others (OBSERVER). The EL was responsible for securing responses from their four, or more, direct reports.
Due to the high probability that not all EL would fully complete the assessments (self and direct reports), only data from leaders who completed their own assessments and who obtained data from at least four direct reports, was considered valid for the purpose of analysis. Therefore, the directions to participating leaders encouraged sending the survey out to a minimum of four direct reports, and up to 10 direct reports who were currently working for the EL, or who had worked for the leader within the past five years.

The desired sample size was determined using statistical power, significant criterion (alpha ~α), and effect size (ES). For this study, the power was .90, the typical power used in academic research; α was .05, the standard measure; and the ES effect size was .41.

The researcher solicited participation from 454 ambassadors. Each ambassador was asked to petition up to 15 leaders to participate. The ambassador, if meeting the EL criteria, was also able to participate in research. The number of ambassadors that had leaders contribute to completing surveys was 103, with 89 ambassadors contributing to the final data collected.

**Instrumentation**

Three well-established, validated research instruments were used in this quantitative correlational study. The Emotional and Social Competency Inventory (ESCI) (Boyatzis, 2007), the Leadership Practices Inventory SELF (LPI-SELF) (Kouzes & Posner, 2013b) and the Leadership Practices Inventory OBSERVER (LPI-OBSERVER) (Kouzes & Posner, 2013a) were used and are described below.
Emotional and Social Competency Inventory (ESCI). The ESCI is a multi-rater assessment used to collect data on observations of the individual’s emotional intelligence behaviors in their work environment (Boyatzis, Good, & Massa, 2012). The ESCI: A User Guide for Accredited Practitioners (User Guide) (Boyatzis, 2011) notes the ESCI assessment measures behaviors that are needed for effective performance (Boyatzis, 2011). The instrument is a 72-question survey that measures 12 separate and distinct competences of social and emotional intelligence. Self-awareness is one of the 12 competencies measured, and this one competency score is determined by five items within the instrument. Each of the 12 social and emotional competences within the assessment has been validated separately and has been shown to be reliable and valid for the self-awareness competency specifically (Boyatzis, 2007; Boyatzis & Gaskin, 2010; Saxe, 2011). For this research, only questions that rate self-awareness were used. These assessment questions were only included in this researcher’s Proposal Defense document due to confidentiality, proprietary, and copywriting purposes.

Format, scoring and interpretation. Although the ESCI has 12 independent scales, only the self-awareness scale was used. Qualtrics, a third-party survey platform was approved for this research. See Appendix A, Hay Group ESCI Approval Email for 3rd Party Platform and Self-Awareness Questions Only. The leader and direct reports replied to observational questions, rating how frequent certain behaviors were observed. A 5-point scale was used to measure the frequency: never, rarely, sometimes, often, and consistently. Additionally, there was a don’t know response option. Each rating was converted to a number where never is rated as one and
consistently as five. Scoring was calculated using the *User Guide’s* (Boyatzis, 2007) instructions. One aspect of scoring, however, was not included in the instructions, and that related to calculating user’s score and their direct reports’ scores. Only the average of the direct reports’ scores was used to measure leader’s self-awareness scores; the leader’s self-score is discarded for analysis (Boyatzis et al., 2012). Because the tool is generally used for development purposes, the feedback to leaders generally includes both the leader’s score and the others’ scores in debriefing discussions. Finally, per the *User Guide* directions (Boyatzis, 2007), surveys were discarded if the rater, in this case the direct report, was not able to answer at least 75% of the questions (Boyatzis, 2011).

**Validity and reliability.** The assessment has been shown to have acceptable research validity and reliability (Boyatzis & Gaskin, 2010; Wolff, 2007). Internal consistency of the ESCI based on Cronbach’s alpha for self-awareness is .83, $n = 52,363$ (Boyatzis, 2011). When determining the reliability of responses, if Cronbach’s alpha is .7 or above, on a scale of 0 to 1, the internal consistency is considered good to excellent (Ary, Jacobs, & Sorensen, 2010). The *User Guide* (Boyatzis, 2011) states that over 160,000 participants have supported face validity, content validity, construct validity, and criterion validity, and contribute to the .83 Cronbach’s alpha for self-awareness. Other ESCI competencies range from .74 to .87, and each of the 12 competencies were found to be distinct from each other (Boyatzis, 2007).

**Leadership Practices Inventory (LPI).** Kouzes and Posner (2012) state the LPI has been used for over 30 years, in over two million assessments, and they claim it is a multi-rater assessment designed to measure exemplary leadership practices. They
posit the LPI rates behaviors that can be measured as well as learned. The questions for both the LPI-SELF and LPI-OBSERVER are the same, with a different focus in directions: either this leader, if viewed by OBSERVER; or you, if viewed by SELF. The questions were only included in this researcher’s Proposal Defense document due to confidentiality, proprietary, and copywriting purposes.

**Format, scoring and interpretation.** The LPI assessment consists of 30 statements describing various observable behaviors. Six questions measure each of the five different practices. The five individual practice scores being measured include: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Engaging the Heart. These five behaviors were rated and measured by the leader (SELF), and the average of the direct reports’ scores (OBSERVER) as well; one score for self and one average score for all OBSERVERS for each of the five behaviors were measured and analyzed.

The questionnaire for the leader (SELF) has an overall instruction section that asks, “To what extent do you engage in the following behaviors?” and each question starts with “I”. For example, “I set” or “I describe” (Kouzes & Posner, 2013b). The questionnaire for the direct reports (OBSERVER) has an overall instruction section that asks, “To what extent does this leader engage in the following behaviors?” and each question starts with the verb, not “I”. For example, “Sets” or “Describes” (Kouzes & Posner, 2013a). In other words, although the questions are the same, the format of questions differ based on the person taking the assessment.

Qualtrics, a third-party survey platform, was selected for this research, and has been approved by Wiley, the publisher of the LPI Assessment. See Appendix B, Wiley
LPI Approval Letter for 3rd Party Platform. The leader and direct reports reply to observational questions, rating how frequently specific behaviors are observed. A 10-point scale is used. The ratings are as follows: \textit{almost never, rarely, seldom, once in a while, occasionally, sometimes, fairly often, usually, very frequently, and almost always.} Each rating is converted to a number where \textit{almost never} is rated as one and \textit{almost always} as 10. Approval to use the assessment comes with rating instructions which reflects the average of six questions for each of the five practices. For this research, the instruments are not included in this document due to confidentiality, proprietary, and copyright purposes.

\textit{Validity and reliability.} The LPI has been extensively examined and is shown to have good validity and reliability (Posner, 2010). In 1993, Posner and Kouzes showed initial coefficient alpha on LPI ranging from .80 to .91; with SELF (between .70 and .85) lower than OBSERVER (.81 to .92). The authors also write that the test-retest reliability for the five practices was at a .93 level or higher (Posner & Kouzes, 1993). In 2013, Posner provided more recent research data where internal reliability showed an overall Cronbach’s alpha score of .83, with coefficient alpha on LPI SELF ranging between .69 and .83 for the five practices; and the coefficient alpha on LPI OBSERVERS ranging between .84 and .90. When determining the reliability of responses, if Cronbach’s alpha is .7 or above, on a scale of 0 to 1, the internal consistency is considered good to excellent (Ary, Jacobs, & Sorensen, 2010).

\textbf{Data Collection}

This section provides an overview of the steps taken to collect data from both the leaders and their direct reports, and how data were obtained and stored. It also
describes the role of the ambassador, as a way to enhance generalizability and increase the number of leaders participating in research.

The instrument items were administered through Qualtrics.com where the instrument and responses were stored in a secure site. The researcher received approval to use the three research instruments and to transfer the questions into a third-party survey platform.

The experienced leaders (EL) rated themselves using the LPI-SELF and were rated by four or more direct reports using the LPI-OBSERVER assessment (Kouzes & Posner, 1987, 2007, 2012, 2013a, 2013b). Both the leader and direct reports completed questions of observation using the ESCI, an assessment created for 360-degree measures (Boyatzis, 2007).

The experienced leaders’ effectiveness was measured using the LPI SELF and LPI OBSERVER. These instruments were approved for use in this research. For the LPI SELF and LPI OBSERVER, see Appendix C, Wiley LPI Approval Letter. See Appendix B for approval to use third-party platform.

The experienced leaders’ self-awareness was measured using the Emotional and Social Competency Inventory (ESCI), an assessment created for 360-degree measures (Boyatzis, 2007, 2011). Although the ESCI measures the spectrum of emotional intelligence, only questions related to self-awareness was used for this research. The same assessment was completed by both the leader and direct reports. This instrument was approved for use in this research. For the ESCI, see Appendix D, Hay Group ESCI Approval Letter.
**Ambassadors’ role.** In order to enhance population validity, participants were recruited by ambassadors. An ambassador was defined as a leader with at least 10 years of professional experience. Ambassadors were from the researcher’s network of professional contacts. To enhance population validity, the extent to which results from the study can be generalized from the sample to the target population, the sample should be broad to enhance generalizable of broader populations (Gall et al., 2007).

A broad accessible population was achieved by recruiting ambassadors in diverse industries and professions. The researcher contacted a network of 454 ambassadors; each ambassador was asked to recruit up to fifteen experienced leaders. Ambassadors were asked to participant if they met the EL definition, and were counted as one of the fifteen leaders asked to recruit.

**Procedures.** Each ambassador received two emails prior to the distribution of the actual survey. The steps of communication and data collection are explained below.

**Step one.** Ambassadors received an introductory email, Communication to Ambassadors, 1st Notice. See Appendix E for a copy of that email. The purpose of this email was to introduce the research, provide opportunity to waive out of the ambassador role, and to share with ambassadors what the criteria is for leadership participation. Thirty-three potential ambassadors, of the original 454 contacts, waived out after the initial email. They were thanked for their consideration; they received no further notifications. An additional 23 emails were ‘blocked’ or rejected by email server, or were shown as no longer valid emails.

**Step two.** Three business days later, 398 ambassadors received another email, Communication to Ambassadors, 2nd Notice. See Appendix F for a copy of that email.
In this second email, instructions were given on the steps to take, on reviewing criteria, in forwarding the emails to experienced leaders, and in participation in the survey as an experienced leader, if they meet the criteria.

**Step three.** On the same day as second notice, each ambassador received 15 similar emails that were to be forwarded directly to up to 15 ELs. See Appendix G, Communication to Experienced Leaders, for a copy of the email. These 15 emails appeared similar except each has a specific five-digit identifying number. The first three digits reflected the ambassador and were assigned by the researcher; the next two-digit number (01-15) was generated to identify the leader recruited by specific ambassador. Each leader participating therefore received a five-digit number that was a specific identifier. This number will was made visually obvious in the instructions and was required to be typed into the survey by both the participating leader and his/her direct reports. Without this number, the survey was not able to be moved forward. Each of these 15 emails provided the directions for both the leaders and for their direct reports. Each had one survey link for the leader, and one survey link for all direct reports participating in this research. After the leader took the survey, he/she was directed to delete one clearly identified section, and forward the rest of the letter to four or more direct reports (see Appendix G). The mass email process was managed with Gmail and a GMass application. The researcher received notification that there were approximately 20 ambassadors who did not receive these emails because their organizations’ server blocked them.
Several ambassadors contacted the researcher stating they did not get the expected emails. The researcher resent 15 emails, individually to six different ambassadors who requested the information.

**Step four.** Each participating leader was asked to initiate the study within three days.

**Step five.** Ten days from the second email notice to ambassadors (Appendix F), a reminder was sent to ambassadors, asking them to follow up with their ELs. See Appendix H, Ambassador Follow-Up Email for a copy of this email.

The researcher was contacted by several ambassadors with a request from leaders to allow longer time for survey participation. Specifically, they asked to keep survey open until after the new year, after the holidays. Based on their request, Step 6 was performed.

**Step six.** Based on leader request, an addition reminder was sent out to specific ambassadors immediately after the New Year holiday. See Appendix I for a copy of the Ambassador Follow Up II Reminder Email.

**Step seven.** Begin data analysis.

Throughout the process above, up through the data analysis step, the researcher was contacted by over 10 different ambassadors asking for the status of their leaders' participation. For instance, they asked for a list of the leaders' numbers that had completed surveys and those that had started but not completed the survey needed for data to count. Some ambassadors were specific in requesting an update every couple weeks; others wanted to send personal notes of thanks to those who finished all needed surveys.
The flowchart for the process of data collection is displayed in Figure 1. It shows the various steps for leaders, ambassadors and direct reports.

Figure 1. Flowchart of participation communication and data collection.

**IRB requirements.** Following IRB approval participants received information about the study (purpose, details, etc.). See Appendix J for a copy of the IRB letter indicating the exempt status of research was approved. Participants were informed that they had the opportunity to participate or not, and that they could cease participation at
any time. The following steps were taken to ensure all aspects of this study were planned and executed according to ethical standards.

1. The researcher is current on all IRB educational requirements.

2. The study was submitted to the University of South Florida IRB panel for review and approval prior to the onset of research activities.

3. The researcher followed the IRB approved rollout of study.

**Confidentiality.** Surveys were administered anonymously and participants’ identities remained anonymous throughout the study. Data collected were recorded using a number system that was generated with a G-Mail and GMass application. The researcher did not have access to what number was assigned to each leader; the researcher did not have access to any leader or direct report email addresses. All participants (experienced leaders and direct reports) were informed of the anonymous nature of the survey at two different times. First, they were notified of the confidentiality and anonymity in the instructions (see Appendix G). Then, they were informed again during the online survey.

**Data Analysis**

Data were collected using Qualtrics.com where responses were hosted on a secure server. Qualtrics.com was approved by both instrument companies as a third party survey platform (see Appendices A & B). The following features of Qualtrics.com provide for effective online surveys: (a) rating levels of observed behaviors; (b) demographic categories; (c) confidentiality and anonymity; and (d) ability to force responses, such as the leader identification number.
The data collected from the Qualtrics.com survey were exported to Excel. Statistical computations were prepared using SAS. Four primary statistical methods were used in the analysis: (a) descriptive statistics, (b) Pearson product-moment correlation coefficient (PPMCC); (c) Chi-square test; and (d) $z$ tests.

The results were described using mean, standard deviation, and range for continuous variables; and frequency and percentage for categorical variables. The analysis for each question is discussed below.

**Research question 1**: What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory-Self (LPI-SELF) scores of experienced leaders?

Pearson product-moment correlation coefficient (PPMCC) was used to compute the test for significance and degree of linear dependence. The PPMCC, $r$, was used to measure the association between the independent variable, self-awareness, and the dependent variables, the five practice scores in the LPI-SELF assessment.

**Research question 1 independent variable subsets:**

a. Is there a significant difference in the relationship by gender?

b. Is there a significant difference in the relationship by education level?

c. Is there a significant difference in the relationship by amount of time in a leadership role?

The subset questions had categorical variables. Gender was a nominal variable; education and time in leadership role are ordinal variables. Each of these questions provided at least three response options for research participants. The use of a Chi-square test was used to determine if there was a significant difference in each of the
sample subsets that provided more than two options; the variable gender was only answered with two options, male and female; therefore, \( z \) tests were used to test if there were significant differences. For both Chi-square questions and the \( z \) test question, Fisher’s \( Z \) (Glass & Hopkins, 1996) was used as a means to place confidence around \( r \), and to convert each independent variable within the subset questions. Fisher shows that a normal distribution can be obtained even with smaller sample groups (Glass & Hopkins, 1996).

**Research question 2:** What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?

Pearson product-moment correlation coefficient (PPMCC) was also used to compute the test for significance and degree of linear dependence for this question. The PPMCC, \( r \), was used to measure the association between the independent variable, self-awareness score, and the dependent variables, the five practice scores in the LPI-OBSERVER assessment. The LPI-OBSERVER scores were obtained by calculating the mean of all observer respondents, for each individual practice.

It should be restated in this section of the chapter, self-awareness scores were collected from the ESCI instrument that measures emotional intelligence in its entirety, as well as individual competency grouping. For this research, only the self-awareness score was measured and analyzed. The LPI, however, with five components showed five separate scores reflecting the five practices.
Summary

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness, and was intended to assist HR and HRD professionals manage leadership development interventions in response to today’s workplace environment. The instruments used in this study were three well-established, validated research instruments: the Emotional and Social Competency Inventory (ESCI) (Boyatzis, 2007), the Leadership Practices Inventory SELF (LPI-SELF) (Kouzes & Posner, 2013b) and Leadership Practices Inventory OBSERVER (LPI-OBSERVER) (Kouzes & Posner, 2013a). Non-probability convenience sampling was used. The sample was obtained using a snowball chain-sample method where ambassadors were asked to recruit leaders for the study.

Qualtrics.com was used to collect responses from participating leaders. Once data was collected, it was exported to Excel, and analyzed using SAS. Correlations between the self-awareness scores and leadership effectiveness scores were summarized based on this analysis.
Chapter 4

Findings

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. This chapter contains the research questions, study participants, analysis of the leadership effective and self-awareness scores, and observations.

Research Questions

This study attempted to answer the following research questions:

1. What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory Self (LPI-SELF) scores of experienced leaders?
   a. Is there a significant difference in the relationship by gender?
   b. Is there a significant difference in the relationship by education level?
   c. Is there a significant difference in the relationship by amount of time in a leadership role?

2. What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders' abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?
Study Participants

The sample for this study included individual leaders within various types of organizations who: (a) have been in a leadership role (as a middle manager, senior manager, or executive) for at least five years; and, who regularly directed/led the work of two or more individuals at one time; and, was able to recruit at least four direct reports (a subordinate or a person who reports directly to the leader) who have worked for them for at least two years at some point over the past five years, at time of study.

The sample group was obtained using a snowball chain-sample method using the researcher’s network of contacts from various industries, termed ambassadors. This network recruited leaders to participate in study. The researcher initially solicited participation of ambassadors (n = 454). Each ambassador was asked to provide up to 15 leaders to help with generalizability of study. The research required an additional four surveys, from direct reports, for each single leader to support Question 2 of the study: What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?

Ambassadors. The ambassadors (n = 454) for this study were key in recruiting study participants. The overall response rate of leaders delivering one or more completed survey was 19.6% (N = 89) of initial requests to ambassadors. See Table 3, Activity of the Ambassadors’ Participation for specifics. Although more contributed to the data collected (n = 103), several ambassadors (n = 14) had leaders who sent partial responses, and another group of ambassadors were removed from participation early in process for several reasons including their request to not participate (n = 18), and
incorrect email addresses or notification to researcher that servers blocked email messages \( (n = 38) \). Over 60% of ambassadors \( (n = 295) \) provided no feedback or responses.

Table 3

*Activity of the Ambassadors’ Participation*

<table>
<thead>
<tr>
<th>Ambassador Count</th>
<th>Percentage of Total</th>
<th>Activity Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>454</td>
<td>100.0%</td>
<td>Ambassadors Originally Contacted</td>
</tr>
<tr>
<td>103</td>
<td>22.7%</td>
<td>Ambassadors with Some Activity</td>
</tr>
<tr>
<td>18</td>
<td>4.0%</td>
<td>Ambassadors Voluntarily Removed</td>
</tr>
<tr>
<td>38</td>
<td>8.4%</td>
<td>Ambassadors Bounced Back (Spam or Wrong Emails)</td>
</tr>
<tr>
<td>14</td>
<td>3.1%</td>
<td>Ambassadors with Partial Responses - could not use</td>
</tr>
<tr>
<td>295</td>
<td>65.0%</td>
<td>Ambassadors with No Responses</td>
</tr>
<tr>
<td>89</td>
<td>19.6%</td>
<td>Ambassadors with One or More Completed Surveys</td>
</tr>
</tbody>
</table>

Due to the snowball chain-sample method used to recruit participants, there was no available data relating to how many emails were sent to potential participants. It was unknown how many additional email messages were blocked from servers/company sites. Data were not available to support how many ambassadors initiated participation.

**Respondents.** Over two months, this data collection method yielded an adequate sample size (leader respondents, \( n = 283 \); direct report respondents, \( n = 867 \)). Data inspection of all responses revealed incomplete surveys (leaders, \( n = 13 \); direct reports, \( n = 12 \)) and leaders who were missing the minimum of four direct reports
(leaders, \(n = 91\)). After removing these responses for the data set, the final sample included \(N = 179\) leaders, each with at least four direct reports (\(N = 761\)) who completed surveys.

**Demographic profile of respondents.** Three questions provided demographic data related to the three independent variables of this study: gender, education and years as a leader. A fourth demographic question gathered information relating to the leader’s industry. Table 4, Demographic Characteristics of Leaders in the Study, summarizes the demographics of the respondents within each variable. There were slightly more female leaders (93) in the study than males (86). Over 80% of leaders had completed a minimum of four years of college, and Bachelor degree respondents (42.5%) were slightly higher than Master degree participants (38.5%); there were more non-degreed leaders (11.2%) than those with an Associate degree (7.8%). The years as a leader was more evenly distributed between the three categories, five to 10 years of leadership experience (38%), 11 to 20 years (26%), and over 20 (26%).

One primary reason the researcher used ambassadors to solicit participation, was to obtain samples from various industries, with the goal of providing a more generalizable study. The demographic results show diversity in industries with Manufacturing and Finance/Insurance categories both providing slightly more than 20% of sample; Healthcare and Technology/Telecom over 10% of respondents, and a few categories: Hospitality, Education, Military/Government, and Other providing between 6-10% of participants; Property/Real Estate reflected less than 5% of the research sample.
Table 4

Demographic Characteristics of Leaders in the Study

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>87</td>
<td>48.6</td>
</tr>
<tr>
<td>Females</td>
<td>92</td>
<td>51.4</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Degree</td>
<td>20</td>
<td>11.2</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>14</td>
<td>7.8</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>42.5</td>
</tr>
<tr>
<td>Grad/Post Grad Degree</td>
<td>69</td>
<td>38.5</td>
</tr>
<tr>
<td>Years as a Leader:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>67</td>
<td>37.4</td>
</tr>
<tr>
<td>11 to 20 years</td>
<td>65</td>
<td>36.3</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>47</td>
<td>26.3</td>
</tr>
<tr>
<td>Industry:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>41</td>
<td>22.9</td>
</tr>
<tr>
<td>Financial/Insurance</td>
<td>36</td>
<td>20.1</td>
</tr>
<tr>
<td>Healthcare</td>
<td>20</td>
<td>11.2</td>
</tr>
<tr>
<td>Technology/Telecom</td>
<td>20</td>
<td>11.2</td>
</tr>
<tr>
<td>Hospitality</td>
<td>17</td>
<td>9.5</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>8.4</td>
</tr>
<tr>
<td>Education</td>
<td>13</td>
<td>7.3</td>
</tr>
<tr>
<td>Military/Government</td>
<td>11</td>
<td>6.1</td>
</tr>
<tr>
<td>Real Estate/Property Mgmt.</td>
<td>6</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Note: N = 179; *% may not equal 100 due to rounding

Analysis of Research Questions

Research question 1. What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory Self (LPI-SELF) scores of experienced leaders? Two widely accepted, quantitative instruments were used to measure leadership effectiveness and self-awareness. LPI-SELF, one of the surveys, is made up of 30 questions that rate the frequency of 30 different behaviors.
The SELF assessment was used by the individual leaders. These behaviors were then grouped into five major competencies that have been found to link with exemplary leadership practices: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2012). Each of these five competencies ranged from 6 to 60 points with 60 reflecting highest levels a responder can rate each practice. Mean scores range from 49.92 (Challenging the Process) to 54.09 (Enabling Others to Act). Standard deviations of the items ranged from 2.36 to 6.23. The mean scores for the LPI-SELF competencies for 179 participants are summarized in Figure 2. Table 5 provides descriptive analysis of the leaders’ self-reported LPI scores and their self-awareness scores.

**Figure 2.** Leaders’ LPI-SELF mean ratings for leadership practices.
Table 5

*Descriptive Analysis of Leaders’ LPI-Self and Self-Awareness Scores*

<table>
<thead>
<tr>
<th>Variable</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>52.54</td>
<td>3.88</td>
<td>51.96 - 53.11</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>50.17</td>
<td>6.23</td>
<td>49.25 - 51.08</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>49.92</td>
<td>5.15</td>
<td>49.16 - 50.67</td>
</tr>
<tr>
<td>Enabling Other to Act</td>
<td>54.09</td>
<td>2.36</td>
<td>53.61 - 54.57</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>51.21</td>
<td>4.80</td>
<td>50.50 - 51.91</td>
</tr>
<tr>
<td>Self-Awareness Score</td>
<td>3.45</td>
<td>.73</td>
<td>3.34 - 3.56</td>
</tr>
</tbody>
</table>

*Note: N = 179*

The self-awareness score of the leader was calculated by using the mean score of at least four observers, as instructed by Boyatzis et al. (2012). To ensure validity of this research, at least four direct reports rated the frequency of observed behaviors as identified in five self-awareness assessment survey questions. These questions make up a partial list of questions found in the comprehensive ESCI which is often used to measure emotional intelligence (Boyatzis, 2011). The mean score of leaders (N = 179) leaders’ self-awareness was calculated by the average score obtained by observers (N = 761) who rated individual leaders. If there were not at least four direct reports’ completed surveys, the leaders’ information was removed from data analysis.

The direction and strength of the leaders’ effectiveness, as perceived by the individual leaders, and the leaders’ self-awareness score was determined by first converting all scores to z scores. Analysis relating to correlation provides \( r \) values that are closer to 0 than 1; each of the five competencies depicts a positive, but low correlation to the self-awareness score. *Modeling the Way* reflects the lowest correlation, \( r = .155 \) and *Inspiring a Shared Vision*, the highest of the leaders self-
assessment, was \( r = .292 \). Each of the \( p \) values was <.05, showing statistical significance. The linear dependence between the two variables, as measured by the Pearson Product-Moment Correlation Coefficient (PPMCC) for Leader’s LPI-SELF Scores and Self-Awareness Score is shown in Table 6.

Table 6

*Pearson Product-Moment Correlation Coefficient for Leaders’ LPI-SELF Scores and Self-Awareness Score*

<table>
<thead>
<tr>
<th>LPI Competencies</th>
<th>( r )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>0.155</td>
<td>0.0378</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>0.292</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>0.215</td>
<td>0.0039</td>
</tr>
<tr>
<td>Enabling Other to Act</td>
<td>0.233</td>
<td>0.0016</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>0.175</td>
<td>0.0193</td>
</tr>
</tbody>
</table>

*Note:* significant at the .05 level; \( N = 179 \)

Histograms showing the distribution of the leaders self-reported scores for each of the Leadership Practices Inventory (LPI) are presented in Figures 3 to 8 below, along with the dispersion of leaders' self-awareness scores, as rated by their direct reports. The distribution of each of the LPI score shows leaders rated themselves most often in the 50-60 point range (on a 6-60 scale), and rarely acknowledged 10-20-30 point ratings.
Figure 3. Histogram of LPI-SELF Modeling the Way.

Figure 4. Histogram of LPI-SELF Inspiring a Shared Vision.
Figure 5. Histogram of LPI-SELF Challenging the Process.

Figure 6. Histogram of LPI-SELF Enabling Others to Act.
Research question 1a. Is there a significant difference in the relationship by gender? Gender is a nominal, categorical variable, and although three options were
available to leaders: male, female, other; responders only answered with male and female responses. Therefore, a $z$ test was used to calculate if there were statistical significant differences in gender responses to each of the five leadership practices, at the .95 confidence level. Fisher's $Z$ (Glass & Hopkins, 1996) was used as a means to place confidence around the correlation, and to convert these independent variables. The calculated $z$ ratio for each Leadership Practices Inventory rating, as provided by the leader, was compared with critical $z$ value, 1.96, with alpha $= .05$. The observed $z$ ratio for each of the LPI competencies and Self-awareness (MTW $= .3475$; ISV $= .3627$; CTP $= .1034$; EOA $= .5320$; ETH $= .1698$; SA $= .3339$) is less than critical $z$ value, 1.96.

With these data the correlation of the five LPI-SELF competencies and Self-awareness is not significantly different by men and women who participated. Table 7 provides the mean and standard deviation for LPI-SELF and Self-Awareness by Gender. Table 8 depicts the results of the male and female correlations for each LPI category, and the $z$ test analysis by gender.

The results appeared to show the correlation was stronger for females, ranging from $r = .247$, Challenging the Process, to $r = .367$, Enabling Others to Act, than for males in the study, ranging from $r = .019$, Modeling the Way, to $r = .192$, Inspiring a Shared Vision. However, it is not statistically significant at the levels measured.
Table 7

*Mean and Standard Deviation, LPI-SELF Competencies and Self-Awareness by Gender*

<table>
<thead>
<tr>
<th>LPI-SELF</th>
<th>Total</th>
<th>Mean</th>
<th>SD</th>
<th>Male</th>
<th>Female</th>
<th>Mean</th>
<th>SD</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Modeling the Way</td>
<td>52.54</td>
<td>3.88</td>
<td>52.26</td>
<td>52.79</td>
<td>4.01</td>
<td>3.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>50.17</td>
<td>6.23</td>
<td>49.07</td>
<td>50.57</td>
<td>6.37</td>
<td>6.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>49.92</td>
<td>5.15</td>
<td>48.70</td>
<td>51.07</td>
<td>5.34</td>
<td>4.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>54.09</td>
<td>2.36</td>
<td>54.38</td>
<td>53.82</td>
<td>3.16</td>
<td>3.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>51.21</td>
<td>4.80</td>
<td>50.99</td>
<td>51.41</td>
<td>4.73</td>
<td>4.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Awareness</td>
<td>3.45</td>
<td>0.73</td>
<td>3.27</td>
<td>3.61</td>
<td>0.72</td>
<td>0.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: N = 179, male n = 87, female n = 92*

Table 8

*z Test Results for LPI–SELF Competencies and Self-Awareness by Gender*

<table>
<thead>
<tr>
<th>Category</th>
<th>Female r</th>
<th>Male r</th>
<th>Total r</th>
<th>z Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>0.275</td>
<td>0.019</td>
<td>0.155</td>
<td>0.3475</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>0.356</td>
<td>0.192</td>
<td>0.292</td>
<td>0.3627</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>0.247</td>
<td>0.099</td>
<td>0.215</td>
<td>0.1034</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>0.367</td>
<td>0.154</td>
<td>0.233</td>
<td>0.5320</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>0.263</td>
<td>0.073</td>
<td>0.175</td>
<td>0.1698</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td></td>
<td></td>
<td></td>
<td>0.3339</td>
</tr>
</tbody>
</table>

*Note: N = 179, Male n = 87, Female n = 92.*
Research question 1b. Is there a significant difference in the relationship by education level? This question relates specifically to how the leaders rated their own leadership effectiveness; the question sought to identify if those responses have significant differences influenced by four levels of education: no college, associate degree, bachelor degree, or graduate/post graduate degree. Specifically, are the correlation coefficients of the education subset different than the total sample results? Education is a categorical variable and is ordinal. Because there were several response options available, Chi-square tests were used to determine if there was a significant difference based on the education subset. Fisher’s Z was used to place confidence in results; Fisher’s Z shows that a normal distribution can be obtained even with smaller sample groups (Glass & Hopkins, 1996).

Testing differences among several independent correlation coefficients required the comparison of Critical Chi-square, 7.82, with each of the five leadership practices’ Chi-square distribution. Table 9 shows that one competency, Challenging the Process, could be viewed as resulting from sampling error; the other responses appear to be significantly different based on education level. Tables 10 through 14 provide the analysis for each leadership practice by education. Specifically, with a .95 CI, for Modeling the Way correlation was noticeably higher in the Graduate/Post Graduate degree participants ($r = .5556$), whereas those with Bachelor degrees showed almost no correlation at all ($r = .0389$); Inspiring a Shared Vision was also highly correlated with Grad/Post participants ($r = .8771$), and again the Bachelor level participants showed the least relationship ($r = .1490$). Enabling Others to Act showed the greatest correlation with the No Degree participants ($r = .6959$), and Grad/Post Grad participants were also
highly correlated ($r = .6331$). The strongest correlation in terms of education was noticeable in the Encourage the Heart practice, where the Grad/Post Grad participants' correlation was $r = .9739$.

In addition to the Chi-square results, descriptive statistics were also used to analyze sample data. Table 15 provides the mean and standard deviation for the five LPI practices by education. *Challenging the Process* had the widest dispersion of mean scores, ranging from 47.80 (no degree) up to 52.35 (grad/post grad degree); both *Modeling the Way* and *Enabling the Heart* had little dispersion in mean scores. The standard deviation for *Inspiring a Shared Vision* was over 6 for each education group.

Table 9

**Critical Chi-square Compared to Chi-square Distribution for Education**

<table>
<thead>
<tr>
<th>LPI Practices</th>
<th>Chi-square Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>12.35045*</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>56.20723*</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>1.29637</td>
</tr>
<tr>
<td>Enabling Other to Act</td>
<td>15.31864*</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>148.66230*</td>
</tr>
</tbody>
</table>

*Note: Critical Chi-square = 7.82; *significant at .05 level
Table 10

*Weighted Chi-square Distribution Level of Education for Modeling the Way*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>No College</td>
<td>20</td>
<td>0.1582</td>
<td>0.1595</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>0.3135</td>
<td>0.3244</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>0.0389</td>
<td>0.0389</td>
</tr>
<tr>
<td>Graduate/Post Grad</td>
<td>69</td>
<td>0.5556</td>
<td>0.6264</td>
</tr>
</tbody>
</table>

Chi-square = 12.35045

*Note: N = 179*

Table 11

*Weighted Chi-square Distribution of Level of Education for Inspiring Shared Vision*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>No College</td>
<td>20</td>
<td>0.2350</td>
<td>0.2395</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>0.2685</td>
<td>0.2752</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>0.1490</td>
<td>0.1501</td>
</tr>
<tr>
<td>Graduate/Post Grad</td>
<td>69</td>
<td>0.8771</td>
<td>1.3631</td>
</tr>
</tbody>
</table>

Chi-square = 56.20723

*Note: N = 179*

Table 12

*Weighted Chi-square Distribution of Level of Education for Challenging the Process*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>No College</td>
<td>20</td>
<td>0.3835</td>
<td>0.4042</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>0.2685</td>
<td>0.2752</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>0.4365</td>
<td>0.4679</td>
</tr>
<tr>
<td>Grad/Post Grad</td>
<td>69</td>
<td>0.2769</td>
<td>0.2843</td>
</tr>
</tbody>
</table>

Chi-square = 1.296376

*Note: N = 179*
Table 13

*Weighted Chi-square Distribution of Level of Education for Enabling Others to Act*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>No College</td>
<td>20</td>
<td>0.6959</td>
<td>0.8593</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>0.2786</td>
<td>0.2862</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>0.1521</td>
<td>0.1533</td>
</tr>
<tr>
<td>Graduate/Post Grad</td>
<td>69</td>
<td>0.6331</td>
<td>0.7466</td>
</tr>
</tbody>
</table>

Chi-square = 15.31864

*Note: N = 179*

Table 14

*Weighted Chi-square Distribution of Level of Education for Encouraging the Heart*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>No College</td>
<td>20</td>
<td>0.1258</td>
<td>0.1265</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>14</td>
<td>0.2685</td>
<td>0.2752</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>76</td>
<td>0.2484</td>
<td>0.2537</td>
</tr>
<tr>
<td>Graduate/Post Grad</td>
<td>69</td>
<td>0.9739</td>
<td>2.1629</td>
</tr>
</tbody>
</table>

Chi-square = 148.6623

*Note: N = 179*

Table 15

*Mean and Standard Deviation, LPI-SELF Competencies by Education*

<table>
<thead>
<tr>
<th>LPI-SELF</th>
<th>Total Mean</th>
<th>SD</th>
<th>No Degree Mean</th>
<th>SD</th>
<th>Associate Mean</th>
<th>SD</th>
<th>Bachelor Mean</th>
<th>SD</th>
<th>Grad/Post Grad Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTW</td>
<td>52.54</td>
<td>3.88</td>
<td>52.75</td>
<td>3.95</td>
<td>52.43</td>
<td>2.31</td>
<td>52.12</td>
<td>4.06</td>
<td>52.96</td>
<td>3.96</td>
</tr>
<tr>
<td>ISV</td>
<td>50.17</td>
<td>6.23</td>
<td>48.80</td>
<td>6.71</td>
<td>48.86</td>
<td>6.20</td>
<td>49.25</td>
<td>6.08</td>
<td>51.84</td>
<td>6.02</td>
</tr>
<tr>
<td>CTP</td>
<td>49.92</td>
<td>5.15</td>
<td>47.80</td>
<td>4.56</td>
<td>48.29</td>
<td>4.41</td>
<td>48.57</td>
<td>5.00</td>
<td>52.35</td>
<td>4.72</td>
</tr>
<tr>
<td>EOA</td>
<td>54.09</td>
<td>2.36</td>
<td>54.20</td>
<td>2.82</td>
<td>52.93</td>
<td>3.05</td>
<td>54.07</td>
<td>3.37</td>
<td>54.32</td>
<td>3.32</td>
</tr>
<tr>
<td>ETH</td>
<td>51.21</td>
<td>4.8</td>
<td>51.60</td>
<td>5.18</td>
<td>50.57</td>
<td>4.67</td>
<td>51.16</td>
<td>4.64</td>
<td>51.28</td>
<td>4.96</td>
</tr>
</tbody>
</table>

*Note: N = 179, no degree n = 20, associate degree n = 14, bachelor degree n = 76, grad/post grad degree n = 69*
**Research question 1c.** Is there a significant difference in the relationship by amount of time in a leadership role? This question sought to answer if how the leaders rated their own leadership effectiveness differed significantly based on three levels of time in leadership role: 5-10 years, 11-20 years, or more than 20 years. Specifically, are the correlation coefficients related to the years of experience subset different than the total sample results? Time in a leadership role is a categorical variable, and is ordinal. Because there were several options available, Chi-square tests were used to determine if there were differences based on the years in the leadership role subset. Fisher’s Z was used to evaluate confidence levels of results; Fisher’s Z shows that a normal distribution can be obtained even with smaller sample groups (Glass & Hopkins, 1996).

Testing differences among several independent correlation coefficients requires the comparison of Critical Chi-square, 5.99, with each of the five leadership practices’ Chi-square distribution. Table 16 summarizes this comparison. The leaders’ responses demonstrated four of the five practices (*Inspiring a Shared Vision*, *Challenging the Process*, *Enabling Others to Act*, and *Encouraging the Heart*) could be viewed as resulting from sampling error; whereas, only *Modeling the Way* (9.62116 > 5.99) appeared to be significantly different in how the leaders rated themselves, based on years in a leadership role. There was a difference that was statistically higher in both the 11 to 20 year leaders (*r* = .5933) and the over 20 year participants (*r* = .5509). Tables 17 to 21 provide the analysis for each leadership practice by years of leader.

Descriptive statistics were also used to analysis sample data related to the
years as in a leadership role. Table 22 provides the mean and standard deviation for the five LPI practices by years as a leader. Each of the LPI mean scores, by time in a leadership role, is within one point of the total mean. There is little variance around the mean. However, the standard deviation, as was found with education level provides more dispersion for each sub-category of years in role.

Table 16

*Critical Chi-square Compared to Chi-square Distribution for Years as Leader*

<table>
<thead>
<tr>
<th>LPI Practices</th>
<th>Chi-square Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>9.62116*</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>3.976421</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>5.174883</td>
</tr>
<tr>
<td>Enabling Other to Act</td>
<td>4.188451</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>2.965025</td>
</tr>
</tbody>
</table>

*Note:* Critical Chi-square = 5.99; *significant at .05 level

Table 17

*Weighted Chi-square Distribution Years in Leadership Role for Modeling the Way*

<table>
<thead>
<tr>
<th>Years of Leadership</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 Years</td>
<td>67</td>
<td>0.1705</td>
<td>0.1722</td>
</tr>
<tr>
<td>11 - 20 Years</td>
<td>65</td>
<td>0.5933</td>
<td>0.6827</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>47</td>
<td>0.5509</td>
<td>0.6197</td>
</tr>
</tbody>
</table>

Chi-square = 9.62116

*Note:* N = 179
Table 18

*Weighted Chi-square Distribution Years in Leadership Role for Inspiring a Shared Vision*

<table>
<thead>
<tr>
<th>Years of Leadership</th>
<th>$n$</th>
<th>$r$</th>
<th>$Z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 Years</td>
<td>67</td>
<td>0.3245</td>
<td>0.3367</td>
</tr>
<tr>
<td>11 - 20 Years</td>
<td>65</td>
<td>0.0957</td>
<td>0.0960</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>47</td>
<td>0.4388</td>
<td>0.4707</td>
</tr>
<tr>
<td>Chi-square =</td>
<td></td>
<td></td>
<td>3.976421</td>
</tr>
</tbody>
</table>

*Note: N = 179*

Table 19

*Weighted Chi-square Distribution Years in Leadership Role for Challenging the Process*

<table>
<thead>
<tr>
<th>Years of Leadership</th>
<th>$n$</th>
<th>$r$</th>
<th>$Z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 Years</td>
<td>67</td>
<td>0.2068</td>
<td>0.2098</td>
</tr>
<tr>
<td>11 - 20 Years</td>
<td>65</td>
<td>0.7888</td>
<td>0.4462</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>47</td>
<td>0.0072</td>
<td>0.0072</td>
</tr>
<tr>
<td>Chi-square =</td>
<td></td>
<td></td>
<td>5.174883</td>
</tr>
</tbody>
</table>

*Note: N = 179*

Table 20

*Weighted Chi-square Distribution Years in Leadership Role for Enabling Others to Act*

<table>
<thead>
<tr>
<th>Years of Leadership</th>
<th>$n$</th>
<th>$r$</th>
<th>$Z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 Years</td>
<td>67</td>
<td>0.3146</td>
<td>0.3256</td>
</tr>
<tr>
<td>11 - 20 Years</td>
<td>65</td>
<td>0.5963</td>
<td>0.6874</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>47</td>
<td>0.4589</td>
<td>0.4959</td>
</tr>
<tr>
<td>Chi-square =</td>
<td></td>
<td></td>
<td>4.188451</td>
</tr>
</tbody>
</table>

*Note: N = 179*
Table 21

*Weighted Chi-square Distribution Years in Leadership Role for Encouraging the Heart*

<table>
<thead>
<tr>
<th>Years of Leadership</th>
<th>n</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 Years</td>
<td>67</td>
<td>0.2137</td>
<td>0.2170</td>
</tr>
<tr>
<td>11 - 20 Years</td>
<td>65</td>
<td>0.2165</td>
<td>0.2200</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>47</td>
<td>0.4753</td>
<td>0.5169</td>
</tr>
<tr>
<td><strong>Chi-square</strong></td>
<td></td>
<td></td>
<td><strong>2.965025</strong></td>
</tr>
</tbody>
</table>

*Note: N = 179*

Table 22

*Mean and Standard Deviation, LPI-SELF Competencies by Years in Leadership*

<table>
<thead>
<tr>
<th>LPI-SELF</th>
<th>Total</th>
<th>5 - 10 years</th>
<th>11 - 20 years</th>
<th>over 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>MTW</td>
<td>52.54</td>
<td>3.88</td>
<td>52.52</td>
<td>4.15</td>
</tr>
<tr>
<td>ISV</td>
<td>50.17</td>
<td>6.23</td>
<td>49.27</td>
<td>6.64</td>
</tr>
<tr>
<td>CTP</td>
<td>49.92</td>
<td>5.15</td>
<td>50.13</td>
<td>5.72</td>
</tr>
<tr>
<td>EOA</td>
<td>54.09</td>
<td>2.36</td>
<td>53.18</td>
<td>3.48</td>
</tr>
<tr>
<td>ETH</td>
<td>51.21</td>
<td>4.80</td>
<td>50.69</td>
<td>5.15</td>
</tr>
</tbody>
</table>

*Note: N = 179, 5-10 years n = 67, 11-20 years n = 65, over 20 years n = 47*

Research question 2. What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceived the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)? Two widely accepted, quantitative instruments were used to measure leadership effectiveness and self-awareness. At least four direct reports completed the questionnaire about their manager/leader. LPI-OBSERVER consists of the same 30 questions as the LPI-SELF survey, but the terminology reflects frequency
of observing the behaviors of the leader. These behaviors, as with the LPI-SELF were then grouped into five major competencies that have been found to link with exemplary leadership practices: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart (Kouzes & Posner, 2012). Each of these five competencies ranged from 6 to 60 points with 60 reflecting highest levels a responder can rate each practice. Mean scores from the direct reports who rated their leaders ranged from 45.18 (Inspiring a Shared Vision) to 50.09 (Enabling Others to Act). Standard deviations of the items ranged from 5.96 to 9.04; with a .95CI. The mean scores for the LPI-OBSERVER ($N = 761$) reflecting results for leaders ($N = 179$) are summarized in Figure 9. Descriptive Analysis is presented in Table 23.

![Bar chart showing mean LPI-OBSERVER ratings for leaders.](image)

*Figure 9.* Direct reports’ mean LPI-OBSERVER ratings for leaders.
Table 23

Descriptive Analysis of the Direct Reports’ Rating of their Leader’s LPI Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\bar{X}$</th>
<th>$SD$</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>48.13</td>
<td>7.14</td>
<td>47.08 - 49.19</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>45.18</td>
<td>9.04</td>
<td>43.84 - 46.50</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>45.84</td>
<td>7.26</td>
<td>44.77 - 46.91</td>
</tr>
<tr>
<td>Enabling Others to Act</td>
<td>50.09</td>
<td>5.96</td>
<td>49.21 - 50.97</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>47.38</td>
<td>6.02</td>
<td>46.39 - 48.17</td>
</tr>
</tbody>
</table>

Note: The Self-Awareness Score is the same in this table as in Table XX because only the observers’ responses are used to determine self-awareness of individual being evaluated (Boyatzis, 2011). $N = 761$

The direction and strength of the leaders’ effectiveness, as observed by their direct reports in the LPI-OBSERVER scores, and the leaders’ self-awareness score was determined by first converting all scores to $z$ scores. The linear dependence between the two variables, as measured by the Pearson Product-Moment Correlation Coefficient (PPMCC), for Leader’s LPI-OBSERVER Scores and Self-Awareness Score is shown in Table 24. Because analysis relating to correlation provides $r$ values that are closer to 1 than to 0, each of the five competencies describes a positive, strong relationship to the self-awareness score. *Challenging the Process* reflects the lowest correlation, $r = .731$; *Enabling Others to Act* appears to be most related, $r = .830$. Each of the $p$ values was <.0001, showing statistical significance.
Table 24

*Pearson Product-Moment Correlation Coefficient for LPI-OBSERVER Scores and Self-Awareness Score*

<table>
<thead>
<tr>
<th>LPI Category</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling the Way</td>
<td>0.802</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Inspiring a Shared Vision</td>
<td>0.778</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Challenging the Process</td>
<td>0.731</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Enabling Other to Act</td>
<td>0.830</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Encouraging the Heart</td>
<td>0.788</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

*Note: N = 761*

Histograms showing the distribution of LPI-OBSERVER scores are presented in Figures 10 to 14. The dispersion of each of the LPI score shows how the direct reports rated their leaders; possible scores ranged from 6 to 60.

*Figure 10. Histogram of LPI-OBSERVER Modeling the Way, by direct reports.*
Figure 11. Histogram of LPI-OBSERVER Inspiring a Shared Vision, by direct reports.

Figure 12. Histogram of LPI-OBSERVER Challenging the Process, by direct reports.
Figure 13. Histogram of LPI-OBSEVER Enabling Others to Act, by direct reports.

Figure 14. Histogram of LPI-OBSEVER Encouraging the Heart, by direct reports.

Observations

An observation worth noting relates to the challenges of sending multiple emails simultaneously to various ambassadors. Numerous recipients did not receive the email
because their server blocked the message. Some emails were “bounced” back to the researcher noting that the messages failed to be delivered. In several cases, the researcher needed to send one message at a time to ambassadors; in other cases, a different email address was used. When notification was sent back to researcher, it was easy to correct by removing the email addresses from the study or by contacting ambassadors to ask for different email addresses. What was considered more challenging by the researcher was the number of emails that were blocked by the server and went undetected by the researcher because no message was received. Of the 454 ambassadors initially contacted, 103 took some action and 56 were removed from study. There is the question of how many of the other 295 ambassadors ignored the request and how many may have been blocked by the servers.

Another observation was related to the ambassadors’ interest level. Most of the 89 Ambassadors who assisted in recruiting participants did not ask for assistance during the process, but several wanted to know which leaders had started their surveys, which leaders had fully completed, and who was outstanding. Although the researcher did not have names or email address of the leaders, it was easy to provide the status of the 15, five-digit numbers that were assigned to each ambassador. Other ambassadors asked for additional time due to the holidays; while a few were interested in the statistics of their leaders’ completion rates. These active ambassadors were the key to the 179 results. They had numerous responses, as many as all 15 emails forwarded to 15 leaders, and as many as seven completed leader surveys were used. No ambassador had more than seven fully completed surveys.
Also related to ambassadors is the number of surveys forwarded to each ambassador. In retrospect, it might be advantageous to ask ambassadors to forward two surveys to leaders, instead of 15, while providing an opportunity for them to receive more surveys if they requested additional assessments. Receiving 15 similar emails at one time may have overwhelmed some or many ambassadors if they did not read the initial notices sent or fully understand what was being sent to them. With fewer leaders to recruit, more ambassadors may have been willing to assist.

A look at this study from the leaders’ activities also related to the specific organizations’ security/spam features. Several leaders who wanted to participate were unable because their organization blocked the email messages sent by ambassadors. Large companies and many of the financial companies had tight restrictions on what was allowed to be sent, via email, to their employees. This may have been corrected with the use of paper/pencil assessments, which could have been used within specific organizations that blocked the email communications and survey login links.

Of interest in regards to the data, although there were no research questions to support the comparison of how the leaders rated themselves to how their direct reports rated their leader, there was a strong relationship with the direct reports’ self-awareness and leadership effectiveness scores and a weak correlation with the leaders’ responses. See Appendix K, Scatterplot Diagrams Comparing Responses of Leaders and Direct Reports. Within this appendix, Figures 15 to 24 display these scatterplots for each of the Leadership Practices. These results identify a question about the perception of “self” for those in leadership positions. The mean leader score was higher in each LPI category, with an overall average of 4.262 points. Leaders rated themselves higher
than how their direct reports measured the leader by several points in each competency: *Modeling the Way* (4.41), *Inspiring a Shared Vision* (4.99), *Challenging the Process* (4.08), *Enabling Others to Act* (4.0), and *Encouraging the Heart* (3.83).

An additional observation made by researcher about this study and results related to the self-awareness scores used for leaders. These scores were determined by the mean score of how the direct reports’ measured their leaders’ behaviors. The leaders’ responses were not used for analysis in this study. There is a question of results related to correlation, since the leaders’ correlation analysis reflected a weak relationship for each of the five leadership practice inventory competencies, whereas the direct reports’ correlation identified a strong relationship.

Also related to the direct reports’ responses is the difference found in the subset question variables: gender, education and years in a leadership role. This study only analyzed demographics as they related to the leaders. The results may have shown differences based on the direct reports’ gender, education, and years in a professional role. For instance, the research reflected no difference in gender, as it related to relationship of the LPI and self-awareness analysis. The question of what the results might show if the direct reports’ gender was captured and analyzed. Also related to gender, looking at the correlational coefficient on first glance, each correlation for the women were higher than for men, just not at a significant level.

Another observation related to the education levels. Grad/post graduate degrees were often the most highly correlated responses to LPI-SELF scores; but the bachelor degree participants often had the lowest correlation of all of the education options, including No College and Associate degree study participants. Also of interest, as with
gender and years within a leadership role is the results if measured and analyzed by the direct reports’ education level and/or years in a professional role.

Lastly, the research team sought to make the communication as simple as possible, and provide as little verbiage as needed. However, with IRB approval came mandates for a great deal more content. The required language made some short requests into very long statements. From a marketing perspective, less is better. From an IRB perspective, a lot of content is required.
Chapter 5

Summary, Conclusions, Implications, and Recommendations

The purpose of this research was to investigate the relationship between leaders’ self-awareness and their effectiveness. This chapter contains the research questions, a summary of the study, conclusions, implications and recommendations for future research.

Research Questions

This study attempted to answer the following research questions:

1. What is the direction and strength of the relationship between self-awareness scores and Leadership Practices Inventory Self (LPI-SELF) scores of experienced leaders?
   a. Is there a significant difference in the relationship by gender?
   b. Is there a significant difference in the relationship by education level?
   c. Is there a significant difference in the relationship by amount of time in a leadership role?

2. What is the direction and strength of the relationship between self-awareness scores of experienced leaders and how their direct reports perceive the leaders’ abilities, as identified by the Leadership Practices Inventory Other (LPI-OBSERVER)?
Summary

Leaders, in response to the ever changing workplace environment, are required to engage employees and deliver results (Kouzes & Posner, 2012). They are challenged with internal expectations, such as organizational commitment, employee engagement, and delivering individual and departmental results. The external environment is also changing expectations and business practices; leaders are required to respond to a faster, technological, global economy.

Organizations are responding to these challenges with Human Resource (HR) and HRD (Human Resource Development) interventions that seek to improve the effectiveness of leaders. One of the areas being evaluated in both research and business settings, is leadership effectiveness, a construct impacting this changing landscape (Euchner, 2013; Horney et al., 2010). Emotional Intelligence has become increasingly popular as a measure for identifying potential leaders, and as a tool for developing effective leadership skills (Palmer, Walls, Burgess, & Stough, 2001; Posner, 2013); but, not as much quantitative research has been conducted on the foundational principal of emotional intelligence, self-awareness. This study was conducted to add to the body of research on self-awareness and leadership effectiveness.

The instruments used in this study were three well-established, validated research instruments: the Emotional and Social Competency Inventory (ESCI) (Boyatzis, 2007), the Leadership Practices Inventory SELF (LPI-SELF) (Kouzes & Posner, 2013b) and Leadership Practices Inventory OBSERVER (LPI-OBSERVER) (Kouzes & Posner, 2013a). Non-probability convenience sampling was used; a snowball chain-sample method was employed and ambassadors ($N = 454$) were asked
to recruit leaders for the study. Ambassadors were experienced professionals from various industries from the researchers’ professional network. Each ambassador was asked to recruit up to 15 leaders to complete a 35-question survey; each leader needed to solicit at least four direct reports to also answer these 35 questions about the leader. After review of data and removal of incomplete survey responses, the final number of leaders included in this research was 179 with corresponding direct reports ($N = 761$). The resulting data provided a quantitative view of leadership effectiveness and the relationship to leaders’ self-awareness.

**Conclusions**

Based on the results, the conclusions that are made from this study are as follows.

*Although there is a positive relationship between the leaders’ self-assessment of their effectiveness and their self-awareness, it was not strong. Based on the leaders’ own self-assessment of their LPI competencies in relation to their self-awareness score, there were no strong relationships noted for these five practices: Modeling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, Encouraging the Heart.*

The responses of the leaders and their direct reports were different. The leaders and direct reports appeared to have different perspectives on the leaders’ effectiveness practices. The leaders perceived themselves higher than the direct reports on all leadership practices. The leaders effectiveness scores did not seem to relate to their self-awareness scores, but the direct reports’ responses about the leaders were correlated to the self-awareness scores.
The gender of leaders didn’t reflect differences in this study. The variable of leadership effectiveness compared to self-awareness was similar regardless of gender. Education, however, was observed to differ for most of the leadership competencies; only *Challenging the Process* showed no relationship with level of education. Grad/post grad leaders appeared to have a stronger relationship for most of the competencies, whereas the bachelor degree leaders were found to have little relationship when comparing leadership effectiveness with self-awareness. Regarding years as a leader, there was a relationship of *Modeling the Way* with years in a leadership role. Those with more experience as a leader were more likely to show a relationship of their *Modeling the Way* effectiveness to self-awareness.

**Implications**

Organizations spend enormous amount of time and money in developing leaders, with the expectation that good leaders create value to the organization (Ashley, 2009). The desired outcome is positive impact on employee engagement and organizational performance. Yet, leadership interventions do not generally provide the positive effect, as noted in a meta-analytic summary (Reichard & Avolio, 2005). Organizations, therefore, may seek to validate interventions that are effective in the development of leaders and their self-awareness.

Leaders are tasked with delivering results, inspiring a shared vision, motivating others to act, improving process, and walking the talk. How leaders are perceived is different from how they view themselves. The different perspectives of leaders and their direct report may indicate disagreement in the teams of effectiveness and workplace culture. Self-aware leaders are perceived to be more skilled at the dimensions
associated with exemplary leadership practices. Focusing on bridging that gap may enhance the individual and team results.

The Leadership Practices Inventory has provided over 40 years of research validating that these five practices reflect exemplary leadership practices (Kouzes & Posner, 2012). The direction and strength of the relationship between leaders’ self-awareness and their direct reports ratings for each of the five leadership competencies appears to support the need for self-awareness development and leadership effectiveness development.

Many HR and HRD practitioners are utilizing coaching, mentoring, and training workshops as interventions to improve leadership practices. The information provided in this study may be used to support the desired outcomes of such interventions since these types of developmental interventions have more of a reflective practice than most workplace training programs.

Academia, charged with developing HRD and HR professionals as well as leaders may continue to enhance deep learning practices that support self-awareness and the practices that are needed in the workplace to deliver exemplary leadership knowledge, skills, and abilities.

Finally, if organizations require leaders to be measured on their impact to those they work with, all stakeholders may benefit from a leader who recognizes strengths and weaknesses, hot buttons, reactions and impact to others, and the results of individual and teams.
Recommendations for Future Research

The following recommendations for further research have been developed as a result of this study:

1. A quantitative study may be conducted to measure the subset questions for responses by the direct reports. Conducting research to measure if leaders’ years as leader, level of education, and gender differ significantly by how the OBSERVERS answered the questions may be valuable in understanding more about the direct reports’ responses.

2. A similar research project that also analyzes relationship based on level of leadership (executive, middle management, supervisor) would help to add to the body of research.

3. This study attempted to be generalizable, so that various organizations could benefit from the results. There may be a benefit to making this study more specific to individual industries on a larger scale.

4. This study was conducted in the United States, with primarily U.S. organizations. International studies may be relevant as the economy continues to expand globally.

5. One of the surprises to the researcher was the extent of different responses from leaders and their direct reports. A study that compared these two groups’ responses would have to understand the similarities and variances observed in the results of this study.
6. Further research to measure individual and team performance in comparison to the relationship of self-awareness and leadership practices may provide a positive return on investment for owners of the training budget.

7. Qualitative research might help to better understand various aspects of this research. Questions about the reasons certainly leaders choose to not actively participate in one or more of the exemplary practices, or perhaps investigate how high self-aware leaders believe they’ve become self-aware.

8. A longitudinal study of leaders who are ‘on the path’ of self-awareness might be a focus for researchers and practitioners seeking to build this emotional intelligence competency.
References


Clinebell, S., Skudiene, V., Trijonyte, R., & Reardon, J. (2013). Impact of leadership styles on employee organizational commitment. Journal of Service Science, 6(1), 139-152. Retrieved from http://search.proquest.com/docview/1468618385?accountid=14745


Appendices
Appendix A

Hay Group ESCI Approval Email for 3rd Party Platform and Self-Awareness Questions Only

Priscilla Olle via haygroup.com

Hi Patti,

Let me ask the research committee if we can approve you to use only the questions related to the self-awareness competency. We typically want the researchers to use the full questionnaire through our system, but if they approve for you to use the self-awareness items only, I’ll send you those items and scoring key and you’ll need to put those into your Qualtrix program, as our system doesn’t allow for a sub-set of questions to be used. On our platform, it’s the full survey that’s available only.

I’ll circle back with you asap.

Best,

Priscilla

Priscilla Olle via haygroup.com

Hi Patti,

The committee has approved you to use the self-awareness items only from the ESCI. Attached please find the related items and scoring key.

In terms of support for reviewing your project methods, unfortunately given our limited bandwidth at this time, we aren’t able to help researchers with design or advice on research methods, so hopefully your advisor from the university can help you with that piece.

Kind Regards,

Priscilla
Appendix B

Wiley LPI Approval Letter for 3rd Party Platform

Notkin, Debbie - San Francisco <dnotkin@wiley.com>    Jul 28

Dear Patricia Sullivan:

Thank you for your request to use the LPI®: Leadership Practices Inventory® in your research. This letter grants you permission to use the LPI Self and Observer instruments in your research through a third-party survey platform. We have received your payment for this use. Permission to use the instruments on a third-party platform is contingent upon the following:

(1) The LPI may be used only for research purposes and may not be sold or used in conjunction with any compensated activities;

(2) Copyright in the LPI, and all derivative works based on the LPI, is retained by James M. Kouzes and Barry Z. Posner. The following copyright statement must be included on all reproduced copies of the instrument(s); “Copyright © 2012 James M. Kouzes and Barry Z. Posner. Published by John Wiley & Sons, Inc. All rights reserved. Used with permission.”

(3) The third-party platform posting of the LPI instrument must be set to private – only individuals with a link and/or password may access the instrument. You agree to remove the third-party platform posting of the LPI instrument immediately upon conclusion of your research project.

(4) One (1) electronic copy of your dissertation and/or one (1) copy of all papers, reports, articles, and the like which make use of the LPI data must be sent promptly to my attention at the address below; and,

(5) We have the right to include the results of your research in publication, promotion, distribution and sale of the LPI and all related products.

Permission is limited to the rights granted in this letter and does not include the right to grant others permission to reproduce the instruments except for versions made by nonprofit organizations for visually or physically handicapped persons. No additions

Continued on the next page
Appendix B continued

*Wiley LPI Approval Letter for 3rd Party Platform*

or changes may be made without our prior written consent. Specifically, you may not alter the text of the 30 Behaviors or the 10-point rating scale. Doing so invalidates the results of your research and is grounds to rescind the permission as these changes result in your work no longer adding to the body of research behind the LPI instrument.

You understand that your use of the LPI shall in no way place the LPI in the public domain or in any way compromise our copyright in the LPI. This license is nontransferable. We reserve the right to revoke this permission at any time, effective upon written notice to you, in the event we conclude, in our reasonable judgment, that your use of the LPI is compromising our proprietary rights in the LPI.

Thank you again for your interest in the Leadership Practices Inventory.

--

*Debbie*

Debbie Notkin
Contracts Manager

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San Francisco, CA 94104-4594
U.S.
www.wiley.com
+1 415 782 3182
Appendix C

Wiley LPI Approval Letter

June 27, 2016

Patricia Sullivan
3181 Toscana Circle
Tampa, FL  33611

Dear Ms. Sullivan:

Thank you for your request to use the LPI®: Leadership Practices Inventory® in your dissertation. This letter grants you permission to use either the print or electronic LPI [Self/Observer/Self and Observer] instrument[s] in your research. You may reproduce the instrument in printed form at no charge beyond the discounted one-time cost of purchasing a single copy; however, you may not distribute any photocopies except for specific research purposes. If you prefer to use the electronic distribution of the LPI you will need to separately contact Eli Becker (ebecker@wiley.com) directly for further details regarding product access and payment. Please be sure to review the product information resources before reaching out with pricing questions.

Permission to use either the written or electronic versions is contingent upon the following:

(1) The LPI may be used only for research purposes and may not be sold or used in conjunction with any compensated activities;

(2) Copyright in the LPI, and all derivative works based on the LPI, is retained by James M. Kouzes and Barry Z. Posner. The following copyright statement must be included on all reproduced copies of the instrument(s); "Copyright © 2013 James M. Kouzes and Barry Z. Posner. Published by John Wiley & Sons, Inc. All rights reserved. Used with permission";

(3) One (1) electronic copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data must be sent promptly to my attention at the address below; and,

(4) We have the right to include the results of your research in publication, promotion, distribution and sale of the LPI and all related products.

Permission is limited to the rights granted in this letter and does not include the right to grant others permission to reproduce the instrument(s) except for versions made by nonprofit organizations for visually or physically handicapped persons. No additions or changes may be made without our prior written consent. You understand that your use of the LPI shall in no way place the LPI in the public domain or in any way compromise our copyright in the LPI. This license is nontransferable. We reserve the right to revoke this permission at any time, effective upon written notice to you, in the event we conclude, in our reasonable judgment, that your use of the LPI is compromising our proprietary rights in the LPI.

Continued on the next page
Appendix C continued

Wiley LPI Approval Letter

Best wishes for every success with your research project.

Cordially,

Ellen Peterson
Permissions Editor
Epeterson4@gmail.com
Appendix D

Hay Group ESCI Approval Letter

Priscilla Olle via haygroup.com

Hi Patricia,
I sincerely apologize for the mishap in the wrong information on the form. We have since deleted the old form so it will not happen again. I can confirm received of the documents and have sent them along to the research committee for their review. I have just received confirmation this afternoon that they have approved your request to use the ESCI 360 for your research.
Below please find your log in to access the self-service administrator website. Please do not distribute this information to any of your participants as it is only meant for the administrator of the account. You can use the info to login and begin using the self-service site (creating new projects, adding participants, sending reminders, creating reports, etc.).

Your administrative site log-in information:
https://surveys.haygroup.com
Username: psullivan
Password: xxxxxxxx

Attached please also our full ‘self-service user guide’ to take you through step by step instructions of how to set up assessments, send emails, generate reports, and other functionalities of the site. Also, you may use the link to view a video demonstration of how to use the site to get you started:

Training Video for administrators (this is for you, not for any participants you add on the survey site)
https://vimeo.com/123660765
Password: xxxxxx

Once you have completed your data collection, please reach out to me and I will send you an Excel spreadsheet with your data for your analysis.

Best Regards,

Priscilla

Priscilla Olle

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10th Floor, Suite 1020
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Tel: +1.617.927.5018
Mobile: +1.857.330.2329
Email: priscilla.olle@kornferry.com
www.kornferry.com/haygroup
Appendix E

Communication to Ambassadors, 1st Notice

Email Subject Line: Patti Sullivan requests your expertise for research

Hi Colleagues/Peers/Friends/Business Acquaintances:

I’m requesting that you help me find leaders for research on leadership effectiveness and self-awareness. Your role is an Ambassador. It will take up to 15 min. of your time.

If you are NOT able/interested in participating, just let me know and you will be removed from the process.

If you are able/interested, in three business days, you will receive one email with easy to follow directions, and you will be asked to send a request to up to one or two experienced leaders.

An “Experienced Leader” is defined as:

(a) In leadership role (as a middle manager, senior manager, or executive) for at least five years; and,
(b) who regularly directs/leads the work of two or more individuals at one time; and,
(c) can ask at least four direct reports (a subordinate or a person who reports directly to the leader) who have worked for them for at least two years at some point over the past five years.

Thank you. I appreciate your consideration, your time, and your effort. If you have any questions or need assistance, please feel free to contact me at sullivan1@mail.usf.edu or 215.421.4242.

Regards,

Patricia A. Sullivan, MS, SPHR
University of South Florida
Communication to Ambassadors, 2nd Notice

Email Subject Line: Patti Sullivan research – Time to Contact Your Experienced Leaders

Hi Research Ambassador:

I'm writing to initiate your role as Ambassador. Thank you in advance for your time and consideration. You will shortly receive 15 similar emails, but they are not the same. Each one has an identifying number for linking leaders with their direct reports. Your role is to simply forward each email to up to 15 different leaders.

Your Role as Ambassador:
Over the next 3 business days please:

1. Review Criteria for “Experienced Leader”
   (a) In leadership role (as a middle manager, senior manager, or executive) for at least five years; and,
   (b) who regularly directs/leads the work of two or more individuals at one time; and,
   (c) can ask at least four direct reports (a subordinate or a person who reports directly to the leader) who have worked for them for at least two years at some point over the past five years.

2. Forward each email to each of your Experienced Leaders. Forward as many as you can to up to 15 Experienced Leaders.

3. Complete the survey yourself, if you meet the Experienced Leader criteria.

If you do not receive the set of similar emails by tomorrow, please check your spam or contact the researcher at sullivan1@mail.usf.edu.

Over the next two weeks, you'll receive a reminder; asking you follow up with your leaders who may want to participate. If you have any questions or need assistance, please feel free to contact me at sullivan1@mail.usf.edu or 215.421.4242.

With Gratitude and Appreciation,

Patti Sullivan
University of South Florida
Appendix G

Communication to Experienced Leaders

Subject Line: 10 Minutes! Please Participate in Leadership Research

Dear Leader:

I am asking for 10 minutes of your time to take an online survey and obtain information from your direct reports. The research relates to leadership and self-awareness for University of South Florida.

For research information, confidentiality and complete consent, please click on link below.

Leaders eligible to participate in this research are:

(a) In leadership role (as a middle manager, senior manager, or executive) for at least five years; and,
(b) who regularly directs/leads the work of two or more individuals at one time; and,
(c) can ask at least four direct reports (a subordinate or a person who reports directly to the leader) who have worked for them for at least two years at some point over the past five years.

1. Over the next three days, please take the survey. Your participant number is {{LEADER}}. (needed to participate). Survey link is:

   LINK to SURVEY

2. Once you complete this short survey, please delete email content to = = = = = = line below, and forward the content below to up to ten people who have worked for you for at least two years sometime over the past five years.

   Your participation is strictly voluntary and will help contribute to the research on self-awareness and leadership. All information gathered WILL BE strictly confidential and responses will remain anonymous. You will never be asked to give your name or other identifying information. Additionally, information gathered will ONLY be used for research and writings/presentations related to leadership effectiveness and/or self-awareness. Your participation will not cause you to receive any emails unrelated to this survey. If you are interested in the final results of the study, please contact the researcher, Patricia Sullivan, at sullivan1@mail.usf.edu and provide an email address to send the final results.

   Thank you, in advance, for your time and consideration.

   DELETE THIS DOTTED LINE AND ABOVE CONTENT BEFORE SENDING

   = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
Good Day!

I am participating in research on the relationship of self-awareness and leadership. As part of my participation, four of my direct reports must also complete an assessment related to my leadership. I am asking you to help with this, and request that you complete the survey about me, as a leader. This survey should take no more than 10 minutes.

Your participation is strictly voluntary and will help contribute to the research on leadership. All information gathered is strictly confidential and responses will remain anonymous. You will never be asked to give your name or other identifying information. Additionally, information gathered will ONLY be used for research, writings and presentations related to the research topic. Your participation will not cause you to receive any emails unrelated to this survey.

Please click on the link below to complete the assessment.

You will need to include this number for the purpose of completing this survey: {{LEADER}}. Please type in number; do not copy/paste.

[LINK to SURVEY]

If you are interested in the final results of the study, please contact the researcher at sullivan1@mail.usf.edu, and provide an email address to send the final results.
Appendix H

Ambassador Follow-Up Email

Subject Line: Reminder to Check in On Research Leaders

Hi Research Ambassador:

I’m sending a quick note to ask that you send a reminder to your Experienced Leaders. The goal is to have all data collected over the next week, so analysis can be started at that time.

If you have your own message to send to those you reached out to as research participants, please feel free to write your own message. If you want a quick/easy message, feel free to copy and paste the following message.

Hello Again Colleague/Team Member,

I’m sending a quick note to ask you to complete the research questionnaire and to check in with your direct reports to ensure they’ve completed the survey. As you recall, you will need at least four individuals - more if possible - who have worked directly for you, for at least two years sometime over the past five years and who can reply to the survey about you as a leader.

Please work to have all survey participants complete their survey over the next few days.

The results will be shared with you, if you would like to see the research summary. If you are interested in the final results of the study, please contact the researcher at sullivan1@mail.usf.edu, and provide an email address to send the final results.

Thanks so much for supporting this research related to leadership and self-awareness.
Appendix I

Ambassador Follow-Up II Reminder Email

Subject Line: After Holiday Reminder

Hi Research Ambassador:

Several of you contacted me to request an extension to allow surveys to be completed. Specifically, you requested I keep survey open until after the New Year holiday. Your consideration and efforts on my behalf are very much appreciated, and I'm honored to have professionals helping with this process.

Yes, survey will remain open. For anyone who is able/willing to follow-up with experienced leaders, please request they begin (or finalize) their participation.

Please forward this message or send your own message to those leaders you reached out to as research participants.

Also, please remember, if you want a copy of final results, please let me know and I’ll add you to the list of interested participants.

Happy 2017!

Patti
Appendix J

IRB Approval Letter for Exempt Status

IRB Study Processing Completed
To: Patricia Sullivan
RE: The Relationship of Self-Awareness to Leadership Effectiveness for Experienced Leaders
PI: Patricia Sullivan
Link: Pro00226533

You are receiving this notification because processing has been completed on the above-listed study. For more information, please navigate to the project workspace by clicking the Link above.

Please note, as per USF IRB Policy 303, “Once the Exempt determination is made, the application is closed in eIRB. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation of the change.”

If alterations are made to the study design that change the review category from Exempt (i.e., adding a focus group, access to identifying information, adding a vulnerable population, or an intervention), these changes require a new application. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project. Again, your research may continue as planned, only a change in the study design that would affect the exempt determination requires a new submission to the IRB.

DO NOT REPLY: To ensure a timely response, please direct correspondence to Research Integrity & Compliance either through your project's workspace or the contact information below.
Appendix K

Scatterplot Diagrams Comparing Responses of Leaders and Direct Reports

Figure 15. Scatter Plot of LPI-SELF Modeling the Way.

Figure 16. Scatter Plot of LPI-OBSERVER Modeling the Way.

Continued on next page
Appendix K Continued

*Scatterplot Diagrams Comparing Responses and Leaders and Direct Reports*

**Figure 17.** Scatter Plot of LPI-SELF Inspiring Shared Vision

**Figure 18.** Scatter Plot of LPI-OBSERVER Inspiring Shared Vision

Continued on next page
Appendix K Continued

Scatterplot Diagrams Comparing Responses and Leaders and Direct Reports

Figure 19. Scatter Plot of LPI-SELF Challenging the Process

Figure 20. Scatter Plot of LPI-OBSERVER Challenging the Process.
Appendix K Continued

Scatterplot Diagrams Comparing Responses and Leaders and Direct Reports

Figure 21. Scatter Plot of LPI-SELF Enabling Others to Act

Figure 22. Scatter Plot of LPI-OBSERVED Enabling Others to Act

Continued on next page
Appendix K Continued

Scatterplot Diagrams Comparing Responses and Leaders and Direct Reports

Figure 23. Scatter Plot of LPI-SELF Encouraging the Heart

Figure 24. Histogram of LPI-OBSERVED Encouraging the Heart
About the Author

Patricia A. Sullivan (Patti) is an Organizational Development professional with over 25 years in HR; and 15 years in adult education, training and leadership coaching. She consults for and coaches business executives and managers, and provides tools that create high performing work systems, aligning human resource initiatives with strategic objectives.

Patti serves as an Adjunct Professor for Villanova University’s graduate program; and designs and facilitates HR & leadership courses for various universities and organizations. As leadership coach, she works with clients to discover their true leadership potential.

Patricia was awarded an undergraduate and graduate degree from Temple University, with a Human Resources concentration. She started her PhD coursework in 2011 at the University of South Florida with a passion for Leadership Development, Adult Learning, Emotional Intelligence and Employee Engagement. She is an avid learner. Her many certifications include: SPHR, SHRM-SCP; Energy Leadership Coach, Conflict Resolution Mediator, Master Trainer, Web-Based Instructional Designer, Yoga Instructor. She is currently working on a 1,000-hour Yoga Therapy certification to support her coaching business.