

**MANAGERIAL COACHING: ITS MEASUREMENT AND RELATIONSHIP WITH
OCCUPATIONAL SELF-EFFICACY AND EMPLOYEE ENGAGEMENT**

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Dedication

I would like to dedicate my dissertation to my family. My parents Jaime and Norma Pascal, whose unconditional love and support have been a constant source of inspiration throughout my life. My sister and her husband, Carla and Marcos Modiano, and of course their kids Mario and Alana – who bring an infinite joy to our lives. Finally, I would like to thank my late grandmother, Jaya Cotic, who bestowed in me her love of knowledge and art.

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Abstract

The current studies aimed to address the research gap in the managerial coaching research literature related to its measurement as well as its relationship with other workplace outcomes. Using an archival data set, the sample for both studies consisted of 2,003 managers as well as 5,746 direct reports of those managers. Study One examined the factor structure, reliability, convergent validity, and criterion related validity evidence for the *Coaching Effectiveness 360*[®] (CE 360), a new managerial coaching measure developed by the Center for Creative Leadership (CCL). Multilevel Exploratory Factor Analysis and Confirmatory Factor Analysis were used to determine the underlying factor structure, along with calculation of the Cronbach's alphas and correlation analysis. Results of the first study demonstrated that, contrary to predictions, the CE 360 was unidimensional and had strong internal consistency ($\alpha = .96$). The overall CE 360 score was correlated with general coaching effectiveness ($r = .71$) and perceived supervisor support ($r = .29$). A second study examined whether the frequency of use of managerial coaching behaviors was associated with higher employee engagement, and the role of employee occupational self-efficacy in mediating this relationship. Multilevel modeling and path analysis were used to test the proposed mediation relationship between managerial coaching, occupational self-efficacy, and employee engagement. Results of the second study did not support the proposed mediation relationship, but additional analyses suggested that managerial coaching may be related to both gender ($B = 6.59$) and level of the manager in the organization ($B = 2.57$). The findings suggest that further research is needed to establish criterion validity for the managerial coaching construct.

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CHAPTER I: INTRODUCTION AND LITERATURE REVIEW

Coaching to increase performance is a concept with beginnings in the world of athletics, with coaches providing guidance to athletes to ensure their success (Evered & Selman, 1989). It was not until recently that the concept of coaching became prevalent in the workplace, first through executive coaching to increase the performance of leaders in organizations and then through managers coaching the employees they supervise (Joo, Sushko, & McLean, 2012).

Managerial coaching is defined as the following:

...a developmental activity in which an employee works one-on-one with his or her direct manager to improve current job performance and enhance his or her capabilities for future roles and/or challenges, the success of which is based on the relationship between the employee and manager, as well as the use of objective information, such as feedback, performance data, or assessments. (Gregory & Levy, 2010, p. 111)

This application of coaching by managers has garnered more attention from organizations in recent years, with some businesses incorporating coaching into their leadership strategies (Beattie, Kim, Hager, Egen, Ellinger, & Hamlin, 2014; Joo, Sushko, & McLean, 2012).

One reason that managerial coaching has increased in popularity is due to its potential relationship with positive workplace outcomes. Research has linked managerial coaching with several outcomes for employees who are being coached, such as higher performance (Ellinger, Ellinger, & Keller, 2003), better engagement (Kuzmycz, 2011), and higher job satisfaction (Ellinger, Ellinger, & Keller, 2003). If managerial coaching does in fact relate to positive outcomes for employees, it has the potential to be a powerful tool for businesses to use to develop their employees, improve performance, and even increase more broad organizational

outcomes over time. This potential has led to an increase in interest in managerial coaching in recent years, both in organizations and in research.

Statement of the Problem

Although managerial coaching has become more prevalent, empirical research has not given enough critical attention to the construct and any potential relationships with outcomes (Beattie et al., 2014). As a result, managerial coaching has become a popular practitioner-based recommendation without the empirical evidence needed to support its benefits to employees and organizations (Gregory & Levy, 2011). Managerial coaching has been linked with various outcomes, but evidence for these relationships is limited (Ellinger, Ellinger, & Keller, 2005). In order for managerial coaching to continue to become a valued asset to organizations and managers, more empirical research is needed to allow for better understanding of how managerial coaching interacts with other constructs in the workplace.

One limitation of the current body of research on managerial coaching relates to the measurement of the construct. A review of the literature is presented in the rest of this chapter, with several broad themes. First, there are different measures of managerial coaching developed over time, and each operationalizes managerial coaching in a different way (Hamlin, Ellinger, & Beattie, 2006). Furthermore, several measures of managerial coaching have been criticized for being too limited in their scope and based on sports literature and not workplace literature (Park, 2007). Additional empirical research beyond what is reviewed here is needed to better understand how to best measure managerial coaching in a comprehensive and meaningful way.

The limited body of research on managerial coaching has led to a lack of information about the relationship between managerial coaching and various outcomes. The empirical research that does exist is reviewed in this chapter, but it is limited in both the simplicity of the

models and in the number of studies that have provided evidence for the proposed relationships (Gregory & Levy, 2011). More research is needed to examine the relationship between managerial coaching and other outcomes to strengthen the evidence for these relationships and understand more clearly how the variables interact.

Purpose of the Current Studies

To address these needs, two studies are conducted. The first study examines the factor structure, reliability, and convergent validity of a recent measure of managerial coaching, *The Coaching Effectiveness 360*[®] (CE 360). The purpose of this study is to consider whether (a) the measure is a reliable and valid measure of managerial coaching, (b) the clusters of behaviorally-based items included in the measure are empirically distinct, and (c) the measure relates to employees' perceptions of effective coaching by their managers. This information allows for a better understanding of not just the measure used here, but also of the construct of managerial coaching in general and its operationalization.

The second study focuses on the relationship between managerial coaching and other outcomes. The purpose of study two is to understand (a) whether managerial coaching behavior is related to employees feeling more engaged and (b) whether this relationship is mediated by employee occupational self-efficacy. This model provides clarity about the relationship of managerial coaching to important employee outcomes.

History of Management

Although managerial coaching is a fairly new area of research, it has a foundation in decades of research on how to best manage people. There have been many different trends and changes in management approaches and research over the past century. In order to best understand managerial coaching, it is important first to consider the history of management as a

whole and how this history has contributed to modern conceptualizations of management. Organizations themselves have changed over time to meet emerging social, technological, and economic demands – leading to changes in management as well. A close look at this development over the last century provides important context for understanding the modern challenges of managers and of researchers who study the complexities of management in postmodern organizations. In the next section I briefly review some of the major historical and current approaches to management as a way to contextualize managerial coaching.

Scientific Management

People have been managing others for centuries. One of the earliest attempts to scientifically study management came from Frederick Taylor, who conducted extensive research on how to train employees to be more efficient in the workplace (Taylor, 1911). Taylor believed that there was one best way to complete a task, and that employees who were using less effective methods were one of the biggest sources of waste in the economy. Additionally, Taylor argued that the main goal of organizations was to gain the most profit possible while the main goal of the employee was to get paid the maximum amount while doing the minimum amount of work. These goals were incompatible, but Taylor argued that scientific management would allow for the greatest benefit to both parties. In scientific management, managers were tasked with understanding the science behind the best methods for completing tasks and then training employees and overseeing their activities in a way that allowed for them to be effective. Employees were not expected to understand the science behind their work, but were instead expected to respond positively to the more active role of management, the overall effect of less wasted time by their coworkers, and to special incentives provided by management to reward good work. Taylor applied these principles over several years at Bethlehem Steel Company,

where he observed the workers and trained the foremen who oversaw them. When he first arrived, each worker was loading about twelve and a half tons of pig iron onto the rail carts each day. Taylor estimated that each worker should be able to load between 47 and 48 tons per day instead, and applied the above-described principles to increase efficiency. He found that when managers gave simple instructions paired with monetary and personal incentives, workers were able to load the estimated 47 to 48 tons per day and were able to maintain this pace over several years. Taylor was able to show that when his principles were implemented, worker productivity increased, thus providing evidence for scientific management, and with this evidence the field of scientific management began to grow.

Along with Frederick Taylor, Frank and Lillian Gilbreth worked to expand the field of scientific management through their own studies and writing (Gilbreth & Gilbreth, 1919). In their description of scientific management and what they called applied motion study, they argued that every part of work could be divided into a human element and a material element. The job of management was to understand how to eliminate as much waste as possible through breaking down the work into its smallest components and identifying areas where the process could be simplified or done more quickly. The Gilbreths' work supported that of Frederick Taylor in many ways, including a shared emphasis on waste elimination, but also differed in some respects. For example, the Gilbreths argued that the worker should be involved in the process of scientific management and should understand what was happening and why, while Frederick Taylor argued that many employees would be unable to understand the process and should instead be directed by the manager (Gilbreth & Gilbreth, 1919; Taylor, 1911). Overall, both the Gilbreths and Taylor argued that the job of management was to understand how to most

efficiently complete tasks and ensure that employees were both able and motivated to complete those tasks.

Scientific management continues to have an impact on the field of management. For example, the Gantt chart (Gantt, 1919) that was originally developed as part of scientific management as a method for leaders to track work and compensation continues to be applied across a variety of workplace settings (Wren, 2015). The recent trend of gamification in employee training also includes some of the principles of scientific management, such as objective measurement of employee motivation and the division of tasks into smaller components (DeWinter, Kocurek, & Nichols, 2014). When compared to modern conceptualizations of management, such as managerial coaching, it is clear that scientific management had a very different conceptualization of what employees were capable of and what the goals of management are. The task focus paired with the lack of emphasis on the thoughts, feelings, and understanding of the employee could not be further from the developmental and relationship focus of managerial coaching. Although much of the content has changed, the concept of studying the management of employees from a scientific perspective paved the way for later approaches to the study of management in the workplace.

Human Resource Management

In the middle of the 20th century, a shift occurred in management research from scientific management to a more humanistic approach. McGregor summarized this shift through his outline of what he called Theory X and Theory Y (McGregor, 1957). Theory X described a type of management more similar to scientific management, where the main goal of managers was to organize for economic gain. In this theory, employees were passive and resistant to work and the manager needed to both motivate and control employees. Employees were thought to be lacking

ambition, aversive to responsibility (preferring to be led), self-centered and indifferent to organizational needs, resistant to change, and in general gullible and unintelligent. Therefore, management played a critical role in ensuring that resistant employees would do the job at hand through systems of commands, rewards, and punishments for employees.

As a sharp contrast to Theory X, McGregor (1957) proposed what he referred to as Theory Y, a new theory of management in direct contradiction to the old assumptions made by Theory X. In Theory Y, the overall goal of economic gain for the organization remained the same. However, employees were no longer viewed as lazy and unintelligent. Instead, employees were thought to have their own ambitions, desires, and responsibilities and the role of management was to ensure that these individual goals matched the organizational goals. Management's objectives went from a focus on control of employees, to one that encourages employees to use their talents, work towards goals, and develop as individuals. The introduction of Theory Y marked a shift away from management by control to a focus on the relationship between managers and their employees (Evered & Selman, 1989).

One of the most important contributors to this new, more humanistic approach to management was Peter Drucker, who is often credited with being the founder of modern management (Drucker, 2001). Drucker's 1954 book, *The Practice of Management*, redefined what it meant to be a manager by arguing that managers were charged with ensuring that employees worked well and contributed to the broader context of both the overall organization and the economy in which that organization was situated (Zahra, 2003). The book also included the introduction of management by objectives, by which managers organized many goals into smaller, sequential steps and then compared employee performance to the standards and expectations set by those goals. This approach to management included the concept of self-

control, as Drucker argued that involving employees in goal setting would both motivate them and allow them to recognize their own accomplishments as they progressed toward goals.

Peter Drucker continued to influence the field of management long after the publication of his early writings (Drucker, 2001). He later coined the term “knowledge worker,” referring to the idea that employees provided unique information and perspectives that often went above and beyond the expertise of the manager, and the manager was charged not with having a better understanding than employees (as in scientific management) but instead with ensuring that the individual knowledge of employees was able to be shared and utilized in an effective manner (Drucker, 2001). Drucker also predicted the disappearance of the blue-collar worker and argued that organizations needed to prepare for a future where the value of employees came from their intellectual contributions and expertise (Drucker, 1988). Overall, Peter Drucker is credited with moving the study of management beyond an approach that emphasized control to one that valued employees and their contributions.

Many other researchers contributed to the movement from scientific management to a more humanistic approach. Elton Mayo emphasized the social and relational aspects of performance in the workplace, focusing on solutions to problems that accounted for the human interactions that were taking place (Mayo, 1949). Mary Parker Follett argued that power should come from expertise and reciprocal respect, and that both the organization and the employee could benefit from a more informal and equal relationship between managers and employees (Barclay, 2005). Chester Barnard centered his description of management on communication and the ways in which messages and goals were shared among people in organizations (Barnard, 1938). Scientific management had emphasized efficiency; humanistic approaches emphasized relationships, individuals, and human interaction in the workplace. This shift in focus changed

the way that management was viewed from that point forward, with the humanistic aspects of management informing later theories, up to and including the theories of managerial coaching discussed later in this literature review. The addition of the social aspects of management to the task focus of scientific management set the stage for managerial coaching, which explicitly includes both a task and relationship focus and combines them into one set of behaviors.

Leadership

At the same time that management research was taking a more humanistic approach to the direction and control of employees, a new area of research was emerging: leadership. Leadership theory began to take hold in the workplace with the research of Kurt Lewin, who used social psychology to describe different ways that people could choose to lead a group of others and the consequences of those choices (Lewin, Lippitt, & White, 1939). Lewin described three types of leadership: authoritarian (where rules were clearly outlined by a leader with no room for compromise), democratic (in which leaders made decisions based on input from those they were leading), and laissez-faire (a more hands-off approach where people were mostly left to behave as they wished and leaders were more passive). This initial research started a trend toward thinking of managers as leaders in the workplace and considering how different approaches to management could impact subordinates and organizations overall (Burnes, 2004).

Since Lewin's initial description of the three leadership styles that he found in his research, several other leadership styles have emerged and impacted the field of management. Two of the most commonly discussed and researched styles are transformational and transactional leadership (Judge & Piccolo, 2004). In transformational leadership, managers focus on higher-level, long-term goals and benefits for employees, such as career development and sense of purpose (Burns, 1978). In contrast, transactional leadership focuses on an equal

exchange of resources, where managers offer employees something they want in exchange for something the leader wants (Burns, 1978). Both of these leadership styles differentially predict outcomes for both leaders and subordinates (Judge & Piccolo, 2004).

Even though transformational and transactional leadership have been frequently studied, several other leadership styles emerged that have also impacted management research. Chris Argyris argued that the democratic leadership described by Lewin could only be effective when all parties understood the needs and issues of the organization in a combination of organizational leadership and participative management (Argyris, 1955). Servant leadership is a style in which leaders are first and foremost servants to their subordinates, working to understand their needs and find inspiration through listening to and interacting with those that they lead (Greenleaf, 2002). Authentic leadership involves a high level of self-awareness and self-regulation that then impacts leader interactions with others (Avolio & Gardner, 2005). More recently, research has begun to look at complexity leadership, where leaders are charged with managing several complex systems simultaneously in order to achieve positive outcomes for the organization and employees (Uhl-Bein, Marion, & McKelvey, 2007). Each leadership style is related to different outcomes for managers, and these theories suggest that the choices that managers make about how they will lead their employees can have dramatically different consequences in the workplace.

Leadership research is not limited to the study of different styles of leadership. Other researchers have argued that leadership is about the traits that managers possess and how those traits impact behavior and relationships. Research has shown that the possession of certain traits, such as drive and leader motivation, is related to leader effectiveness (Kirkpatrick & Locke, 1991). The suggestion that personality can predispose certain people to be better leaders is not

without controversy, but in spite of this debate there is strong meta-analytic evidence that personality can predict leadership outcomes (Judge, Bono, Ilies, & Gerhardt, 2002).

Extraversion in particular consistently predicts leadership outcomes, but the five-factor model of personality has been shown to have high predictive value, adding support to the leader trait perspective (Judge et al., 2002). Compared to the leadership style perspective, the leader trait perspective suggests that some people may be better suited for leadership regardless of their approach to management.

Leadership has also been described in terms of specific behaviors that leaders engage in. This subset of research can be traced back to the Ohio State Leadership Studies, which introduced dimensions of leadership, such as consideration and initiating structure, that were composed of behaviors as opposed to overarching styles or traits (Stogdill & Coons, 1957). The Ohio State Leadership Studies were important to the field of management because they marked a shift from a focus on the trait perspective to a more fluid, situational description of how managers interact with their employees (Schriesheim & Bird, 1979). Since these initial studies, several areas of research have emerged that are based on the behaviors of leaders. For example, leader-member exchange (LMX) looks at how managers interact with their subordinates and how these behaviors impact relationships over time (Graen & Uhl-Bien, 1995). Similarly, the concept of trust, both from leaders to subordinates and from subordinates to leaders, has become an important aspect of leadership research, with specific behaviors and attempts to build trust contributing to interactions and outcomes in the workplace (Ferrin & Dirks, 2002). Unlike previous research, behaviorally-based theories are specific, can vary based on the situation and the individuals who are interacting, and can theoretically be adjusted based on feedback given to the leader (Graen & Uhl-Bien, 1995).

The emergence of leadership research once again marked a shift in focus for management. Scientific management had focused on efficiency, humanistic theories emphasized the employee as an individual, and leadership proposed a focus on the manager. These viewpoints have each informed more recent theories of management. It is important to note that these viewpoints do not necessarily compete with one another, but often are incorporated together in management theories that are informed by all three focal points. Just as scientific management and the humanistic theories before it, leadership theories served as a foundation for more modern theories of management. Leadership theories add another important aspect to management- that of the manager and the strategies he or she chooses to use. As opposed to more broad recommendations laid out by the theories before it, leadership theories began to introduce variability in both the options and recommendations for managers. This personalization of the relationship between managers and employees was another important step forward toward managerial coaching, where the interactions between managers and employees are personalized based on the varying relationships, goals, and accomplishments that are present in each case.

Modern Management

Peter Drucker predicted that with the rise of the knowledge worker, organizations would change dramatically in both their structure and their expectations of managers (Drucker, 2001). Modern organizations have in fact changed in many ways, with communication becoming increasingly important with greater specialization of employees and more diversity in work teams (Coughlan, 2016). Organizations have responded to these changes by considering different perspectives on management and rethinking previous policies about leading employees (Hoch, 2012). Management theory has also changed, with a shift in focus toward less

hierarchical models of management (Coughlan, 2016). In recent years the field of management has grown even further to accommodate these changes in organizations and in leadership structures.

Recent management theories consider not just *how* people can lead, but also on *who* can be leading. One result is an emphasis on shared leadership in which employees work together to influence one another toward accomplishing both individual and shared goals (Drescher, Korsgaard, Welp, Picot, & Wigand, 2014). Shared leadership differs from more traditional, hierarchical models in that it recognizes multiple sources of influence within a team or an organization and “refers to widespread influence within teams rather than to specific leadership behaviors, formal positions, specific types of influence, or the effectiveness of the leadership exhibited by these sources” (Carson et al., 2007, p.1218).

Carson et al. (2007) found that when managerial coaching occurred, shared leadership in teams was more likely to emerge, suggesting that the use of managerial coaching behaviors by leaders can enable shared leadership. Shared leadership has been shown to increase innovation above and beyond traditional leadership, providing unique value to organizations (Hoch, 2012). Over time, shared leadership increases trust among work team members, which then leads to an increase in performance (Carson et al., 2007; Drescher et al., 2014). Additionally, shared leadership has been linked with employee confidence (Nicolaidis et al., 2014). Results such as these suggest that shared leadership could be an important tool for organizations.

Shared leadership can also have situational benefits. For example, research shows that the positive impact of traditional, hierarchical leadership structures weakens when work teams are more virtual in nature, while shared leadership has a positive impact regardless of how virtual the teams are (Hoch & Kozlowski, 2014). As workplaces become more global, the need for

flexibility and communication in leadership increases in importance, and concepts such as shared leadership could play a role in increasing positive outcomes for these teams (Caligiuri & Tarique, 2012). In many cases, traditional leadership may no longer lead to the same benefits previously found in more classically structured organizations.

Although shared leadership has many important benefits, research suggests that it is most effectively used as a supplement to traditional leadership, not a replacement. Hoch (2012) examined this supplemental relationship through teams that had both a traditional, formally appointed leader and opportunities for shared leadership to occur informally through team member interactions. When formal leaders used transformational leadership, which prioritizes making changes to both individuals and social systems, shared leadership was not only more likely to occur among team members, but was also more effective compared to teams where there was no formal leadership (Hoch, 2012). This suggests that shared leadership may be a result of a management style that is more employee-centric as opposed to a replacement for traditional management structures. Although management structures have become more flexible, there are still benefits to traditional structures such as role clarity and streamlined decision-making (Coughlan, 2016). However, the benefits of shared leadership should also be considered, and it is possible for organizations to both maintain a management structure and integrate concepts from shared leadership into their day-to-day operations.

It is clear from the variety of research that exists and the changes across time that the field of management is complex. From the earliest days of management research, people have been working to better understand how to control and direct what happens in the workplace. Management has now moved far beyond efficiency and profit to include considerations of personalities, situations, and relationships. Although this complexity can seem daunting,

research has also provided practical suggestions for managers in the workplace. As the field of management has grown, so has the empirical understanding of how managers can lead employees across a variety of organizations and situations. It is this attempt to customize management and recommendations that had led to the importance of the practical behaviors with theoretical rationale associated with managerial coaching.

History of Coaching in Organizations

As management itself was changing and developing into its modern form, a different construct was also emerging in workplace psychology: coaching. The first appearance of the word “coaching” in a peer-reviewed journal appears to date back to 1937 when Gorby referred to coaching as a task to be performed by managers with the purpose of improving employees work skills (Evered & Selman, 1989). This original description of coaching was similar to scientific management, in which senior employees in a profit-sharing program interacted over time with individual employees on how to most efficiently do their job, leading to a larger profit overall. Even from the earliest conceptions, coaching was thought of as a type of communication in the workplace that allowed for improved outcomes. Since this first instance of the term, coaching was regarded in early literature as a one-time managerial activity to be performed by managers either on-the-job when necessary, or periodically at the time of the annual performance review (Evered & Selman, 1989; Lewis, 1947). Coaching was not considered a type of management, but instead one of many tools to be used sparingly by managers when employees needed more individualized instruction or attention (Evered & Selman, 1989). In spite of this limited use of coaching by managers, coaching continued to be discussed in the literature as a useful, and even necessary, approach for managers to guide and develop employees (Mace, 1950).

While the field of management research was becoming more focused on individual employees and their development across time, managers who used coaching behaviors in the workplace also became more focused on the development of their employees in the 1980's (Gegner, 1997). In the 1980's, research on managerial coaching began to move past the idea of coaching as a solution to occasional problems and to focus instead on the potential of managerial coaching as a development tool to be used consistently across time. This shift in focus was partly due to the publication of Fournies' 1987 book, *Coaching for Improved Work Performance*, which dealt at length about the developmental aspects of managerial coaching and helped to introduce the idea to a wider audience of researchers and practitioners (Evered & Selman, 1989; Gegner, 1997; Gregory & Levy, 2011). Fournies (1987) emphasized the interactional aspects of coaching between managers and their employees, arguing that the act of communicating was just as, if not more, important as the message being conferred. Managers could then use this personal communication style to focus on the individual employee's ambitions, problem-solving skills, and performance. Just as management in general was beginning to emphasize employee development, managerial coaching also shifted to a focus on how individual employees could benefit from consistent coaching from their managers.

Along with research examining managerial coaching, coaching also began to be viewed as a service that could be provided by external consultants in order to advise managers and executives on how to improve their own effectiveness, just as coaching within organizations allowed managers to help improve employee effectiveness. In fact, it was in 1981 that Personnel Decisions International (PDI) became one of the first management consulting firms to offer a coaching program for executives centered around ways in which executives could improve and develop individually (Hellervik, Hazucha, & Schneider, 1992; Peterson, 1996). Although many

of the behaviors associated with executive coaching and managerial coaching were the same, there were a few critical differences. First, managerial coaching involved a long-term relationship between manager and employee, while executive coaching involved a more short-term relationship. Executive coaching was often used to address very specific problems, while managerial coaching included more broad developmental activities. Finally, managerial coaching was internal, with the manager coaching employees within the organization while executive coaching involved an external consultant coaching a manager or executive. As coaching became more widely utilized, it evolved from being seen primarily as a remedial activity for struggling managers to help their employees, to serving as a more general platform to facilitate learning and development by providing the tools to achieve higher levels of performance (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Feldman, 2001; Feldman & Lankau, 2005). Even though executive coaching occurred in a different context, with consultants serving as coaches and executives serving as clients, it still mirrored the process of managerial coaching in many ways (Ellinger & Bostrom, 1999). In executive coaching, consultants helped executives develop over time, just as managers were able to help individual employees develop over time in managerial coaching. In both contexts, the focus of coaching was on development and learning, regardless of who was being coached.

The 1990s marked an increase in the practice of executive coaching; during this period, the practice of hiring consultants for executive coaching by organizations became more widespread in response to the need to improve the leadership skills of middle and senior level managers in organizations (Feldman & Lankau, 2005). The recipients of this developmental approach were mostly (a) managers whose past performance had led them up through the organizational ladder, but whose rise had placed them in positions for which they did not have

the necessary skill set or (b) managers who were seen as high potentials but were lacking specific skills in order to continue their advancement (Feldman & Lankau, 2005; London, 2002). This continued emergence and growth of executive coaching as a field helped to further cement the idea of managerial coaching as a developmental process and not just a remedial tool by showing that the strategies and principles used in coaching could lead to individual success and development over time, even if it was occurring in a different context (Ellinger et al., 2010; Mink, Owen, & Mink, 1993).

Hogan, Curphy, and Hogan (1994) summarized research on the importance of leadership, citing hundreds of studies that had been published based on field research in organizations. Their objective was to help leaders understand the practical implications of psychological research – which is often ignored by people outside the field of psychology. Each study included employee surveys regarding leadership in their organization and/or critical incidents regarding leadership. Based on the information gathered in these studies, they concluded that deficient leadership skills accounted for an average of 50% of failures among senior executives in corporate America. These troubling statistics and the apparent solution of executive coaching helped to solidify coaching as an important tool in organizations and led to an increase in research focusing on coaching throughout this period.

Executive coaching and its emergence often had a competitive relationship with research regarding managerial coaching, which is discussed in detail in the next section. With the potential economic and organizational benefits of executive coaching, research began to shift focus and managerial coaching received less attention than executive coaching (Ellinger, Ellinger, & Keller, 2003; Evered & Selman, 1989; McLean, Yang, Kuo, Tolbert, & Larkin, 2005). As executive coaching became more prominent in research, discussion of managerial

coaching began to fade in and out of both research and practical focus, sometimes reemerging as an important construct and then becoming less prominent again (Gray, 2006). There were also practical issues that could have contributed to a lack of consistent research. For example, managerial coaching may be viewed as overly time consuming by managers if they are not able to see it as valuable, making them less likely to engage in and be interested in learning more about coaching behaviors (McLean et al., 2005). McLean and colleagues note that if the organizational culture does not emphasize coaching as a vital part of management, it is likely not to be incorporated into practice. However, researchers still continued to argue that management itself had been changed by the incorporation of coaching in the workplace, and that a new management philosophy had emerged that changed the basic fabric of the manager-employee relationship (Ellinger et al., 2003; McLean et al., 2005; Rothwell, Sullivan, & McLean, 1995).

Defining Managerial Coaching

The process of defining managerial coaching is a difficult one for several reasons. First, empirical research on managerial coaching is in its infancy compared to other more established constructs, contributing to a lack of definitions based on empirical evidence (Beattie et al., 2014). Additionally, the empirical definitions of managerial coaching that do exist differ in many ways (see Table 1 for a list of definitions and descriptions). Finally, managerial coaching conceptually overlaps with several other constructs, so creating a definition that distinguishes managerial coaching from other similar constructs requires a detailed review of the various definitions and descriptions over time in order to clarify and distinguish what is meant by managerial coaching. However, in spite of these difficulties, several similarities and trends have emerged in defining managerial coaching, indicating progress toward agreement regarding what is meant by the term.

Early definitions of managerial coaching were largely based in the sports coaching literature (Evered & Selman, 1989; Orth & Wilkinson, 1990). Evered and Selman (1989) argued that managerial coaching was the application of sports theories in a business context, including techniques regarding motivation, training of skills, and performance development. They also emphasized the importance of the construct in their description of managerial coaching, stating that they viewed coaching “not as a subset of the field of management, but rather as the heart of management” and that “when managers are truly effective, coaching is necessarily occurring” (p. 20). Orth and Wilkinson (1990) drew direct parallels between managerial coaching and sports coaching, arguing that the behaviors and skills displayed by managerial coaches were very similar to the behaviors and skills used by an athletics coach. For example, they argued that managers should build individual mentoring relationships with employees in order to help them develop and that they should use their power over employees to serve as role models in their lives. Even more recent definitions have at times emphasized the athletic aspects of coaching, such as when McLean et al. (2005) described managerial coaching as an organizational development strategy based in principles of athletic coaching (this definition specifically included the principles of open communication, team approach, value people, and accept ambiguity). Although these definitions include many different concepts, from motivation to ambiguity, all of them are based in the sports coaching literature.

Even these early authors acknowledged the limitations of basing managerial coaching in the sports literature, with Evered and Selman (1989) arguing that future research should include definitions that were more specific to the workplace and less ambiguous than the definitions comparing sports and management. This argument is reflected in more recent research that includes more specific definitions that emphasized workplace performance. Burdett (1998)

Table 1

Alternative Definitions and Descriptions of Managerial Coaching

Theoretical Framework	Authors	Managerial Coaching Definition
Sports Coaching-based Definitions	Evered & Selman, 1989 (p.20)	“Much of businesses’ focus on coaching has been in translating sports coaching into techniques to motivate people, train them in skills, or improve management development.”
	Orth & Wilkinson, 1990 (p. 11)	“Managers who are most effective at developing employees have incorporated the skill of coaching into their management style. These managers display behavior and skills that are very similar to the behavior and skills of an athletics coach.”
Performance-based Definitions	Bianco-Mathis, Nabors, & Roman, 2002 (p.4)	“Coaching leaders communicate powerfully, help others to create desired outcomes, and hold relationships based on honesty, acceptance, and accountability.”
	Mujtaba, 2007 (p.3)	“(Managerial) Coaching is focused on developing a trusting relationship with others, as well as on clarifying expectations and goals, thereby leading to specific action plans for their achievement.”
	Ladyshewsky, 2010 (p.293)	“The manager-as-coach role is a process where managers create opportunities for an individual to gain insight into their performance, aimed at guiding and inspiring employees to improve their work.”
Development Definitions	Hamlin, Ellinger, & Beattie, 2006 (p.306)	“This new management paradigm calls for facilitative behaviors that focus on employee empowerment, learning, and development; in other words, coaching.”

(continues)

Table 1 (continued)

Alternative Definitions and Descriptions of Managerial Coaching

Theoretical Framework	Authors	Managerial Coaching Definition
	Ellinger, Ellinger, Bachrach, Wang, & Bas, 2010 (p.2)	“Managerial coaching is defined as a supervisor or manager serving as a facilitator of learning by enacting behaviors that enable employees to learn and develop work-related skills and abilities.”
	Gilley, Gilley, & Kouder, 2010 (p.54)	In the simplest terms, effective coaches develop their employees, which is a continuous process.”
Performance and development-based definition	Gregory & Levy, 2010 (p.111)	“(Managerial) coaching is a developmental activity in which an employee works one-on-one with his or her direct manager to improve current job performance and enhance his or her capabilities for future roles and/or challenges, the success of which is based on the relationship between the employee and manager, as well as the use of objective information, such as feedback, performance data, or assessments.”

described managerial coaching as a process that focused on enhancing employee performance, which included setting expectations, monitoring performance, and giving feedback. Burdett (1998) also argued that managerial coaching focused on the needs of the employee (not the manager) and was a philosophical approach to management, not just a periodic activity. So, whereas managers might typically conduct periodic performance reviews or interact with employees when problems come up, managerial coaching was a more involved process that occurred much more frequently and involved developing the employee regardless of whether or not problems existed that the manager needed to address for organizational purposes.

Managerial coaching has also been described as a communication and relationship strategy that managers can use to help employees accomplish desired outcomes through communication and relationships (Bianco-Mathis, Nabors, & Roman, 2002; Mujtaba, 2007). Recently, Ladyshevsky (2010) described managerial coaching as “a process where managers create opportunities for an individual to gain insight into their performance, aimed at guiding and inspiring employees to improve their work” (p. 293). Unlike previous definitions that emphasized sports, these definitions place the emphasis on workplace performance and provide a more context-specific view of coaching. As opposed to simply stating that managerial coaching includes behaving in similar ways to athletics coaches, more recent definitions describe specific processes, such as communication, that lead to work-related performance outcomes. Although employees and athletes may have a shared interest in performance, more recent definitions of managerial coaching address the specifics of the workplace.

More recent definitions of managerial coaching shifted the focus more directly to employee learning and development. Ellinger et al. (2010) defined managerial coaching as “a manager or supervisor serving as a coach or facilitator of learning in the workplace setting, in which he or she enacts specific behaviors that enable his/her employee (coachee) to learn and develop” (p. 438). As can be seen by this definition, while performance may be a secondary outcome of managerial coaching, the purpose is learning and development. Gilley, Gilley, and Kouder (2010) simplified this concept even further, stating that at its most basic level managerial coaching was a continuous process of employee development facilitated by the manager. Other researchers included more specific facilitative actions in their definitions, including planning for learning, creating mechanisms for learning, creating a learning environment, and employee empowerment (Beattie, 2006; Beattie et al., 2014; Hamlin, Ellinger, & Beattie, 2006). In

contrast to managerial coaching being the implementation of sports coaching in the workplace or a strategy for increasing performance, these definitions view managerial coaching as an important tool for employee learning and development. Although performance may still serve as a secondary or underlying goal, in these more recent definitions the primary objective of managerial coaching is employee development.

In order to define managerial coaching in the current study, all of the definitions reviewed here were critically assessed based on several factors. First, the definition of managerial coaching needs to be comprehensive enough to capture the complexity of the construct. Second, the definition needs to distinguish managerial coaching from other constructs. Third, the definition needs to be able to directly relate to the measurement of managerial coaching, discussed later in this chapter. The definition used in the current study is the definition used by Gregory and Levy (2010), which was created based on a comprehensive review of previous definitions, including the definitions and descriptions reviewed here. Specifically, Gregory and Levy (2010) define managerial coaching as

...a developmental activity in which an employee works one-on-one with his or her direct manager to improve current job performance and enhance his or her capabilities for future roles and/or challenges, the success of which is based on the relationship between the employee and manager, as well as the use of objective information, such as feedback, performance data, or assessments. (p. 111)

In this definition, managerial coaching includes both performance improvement and personal development across time, and these outcomes are facilitated by a one-on-one relationship between a manager and an employee. Although the definition might not be clearly differentiated from what is expected from managers in general, it stresses the importance of

integrating both a task and a relationship orientation – a characteristic of managerial coaching that sets it apart from many traditional leadership theories. The definition also focuses on the long-term nature of the relationship, in which a manager is not uniquely concerned with a momentary boost in performance. The objective of a manager using a managerial coaching style is to develop the capabilities for future challenges and roles. This entails that the manager is expected to be a facilitator of learning, not only an enabler of short-term performance. For example, a coaching style of management will emphasize a non-directive approach through the use of questions that provide direct reports an opportunity to explore underlying assumptions and determine the best course of action, as opposed to a directive approach in which direct reports are instructed as to the best path to solve a specific problem. It is important to note that managerial coaching occurs both as part of the day-to-day interactions between managers and employees, as well as in more focused developmental conversations that can take place at specific point in time. In the next two sections, managerial coaching as defined here will be discussed in order to both differentiate it from other constructs and to review the various attempts to measure managerial coaching.

Differentiating Managerial and Other Types of Coaching

It is common for researchers to consider how managerial coaching differs from other forms of coaching and workplace activities. This distinction is important from both a practical and theoretical perspective, with these differences informing how the construct of managerial coaching fits into the network of workplace constructs and how managerial coaching is operationalized and integrated in the workplace. There are several features that researchers point to when distinguishing managerial coaching from other constructs (see Table 2).

Table 2

<i>Comparison of Dimensions of Managerial Coaching Measures</i>			
Ellinger et al., 2003	Park 2007	Beattie 2002a	Hamlin 2004
Open communication with others	Open communication with others	Informing	Communicates and consults widely/keeps people informed
Taking a team approach to tasks	Taking a team approach to tasks	Empowering	Participative and supportive leadership/proactive team leadership
		Challenging	Empowerment and delegation
Valuing people over tasks	Valuing people over tasks	Caring	Open and personal management approach/inclusive decision making
		Being professional	
Accepting the ambiguous nature of work	Accepting the ambiguous nature of work	Assessing	Effective organization and planning/proactive management
		Thinking	
		Facilitating development	
		Developing others	Genuine concern for people/looks after the interests and developmental needs of staff
		Advising	

Note. The managerial coaching definition used for the present study (Gregory & Levy, 2010) used Ellinger et al., (2003) measure for their study. Ellinger et al.'s, (2003) is the most commonly used measure of managerial coaching.

Understanding these distinctions not only helps to clarify why managerial coaching is different from training, from other forms of management, or other concepts, but also helps to provide a more comprehensive view of what managerial coaching is, as well as how and when it can be enacted by managers in organizations. One example of a comparable on-the-job developmental activity is training. Training tends to be incremental and distinct from other tasks; managerial coaching occurs in the context of an ongoing process and relationship (Orth & Wilkinson, 1990). Employees may be asked to complete training once every few months, but managerial coaching is ongoing and occurs during other day-to-day interactions. Orth and Wilkinson (1990) argued in their review of managerial coaching that the four managerial coaching skills needed by managers are observational skills, analytical skills, interviewing skills, and feedback skills. Training may include a simple transfer of information and practice, but managerial coaching requires managers to have the ability to consistently interact with their employees in a way that contributes to development. Additionally, although training can happen at the group level and can be conducted by a variety of people, much of managerial coaching happens individually when employees are interacting with their own managers specifically. Although Orth and Wilkinson's (1990) four skills were general and not yet linked to specific behaviors, they pointed out ways in which managerial coaching differed from training in the workplace and how the two concepts could serve very different functions for employees and organizations. Training and managerial coaching are complementary. In fact, there are a number of training programs available for managers that want to develop coaching skills.

Managers may use a variety of strategies, styles, and approaches when managing their employees, so it is also important to consider what makes managerial coaching distinct from other forms of management. By contrasting a coaching approach with the command-and-control

approach that was so prominent throughout the 20th century, Evered and Selman (1989) describe 10 characteristics that differentiate managerial coaching from other managerial approaches and styles: developing a partnership, a commitment to produce results and enact a vision, compassion and acceptance, speaking and listening for action, a responsiveness to employees, honoring the uniqueness of employees, practice and preparation, a willingness to coach and be coached, a sensitivity to individuals as well as groups, and a willingness to go beyond what has already been achieved. These characteristics are compared to other management styles that are often based on competitiveness, being in control, solving problems, and/or being seen as the expert (Ellinger et al., 2005; Hankins & Kleiner, 1995). Managerial coaching involves forming a close partnership with employees, allowing them to develop across time.

Managerial coaching also differs from various leadership styles. The Ohio State Leadership Studies were some of the first to divide leader behaviors into two categories: relationship-oriented (also known as consideration) and task-oriented (also known as initiating structure) (Stogdill & Coons, 1957) based on empirical findings. Managerial coaching differs from other leadership styles in that it includes both relationship-oriented and task-oriented behaviors. Kuzmycz (2011) conducted an empirical study that showed that managerial coaching included both task-oriented and relationship-oriented behaviors and was able to predict employee performance above and beyond other leadership and management styles that only included some of the behaviors found in managerial coaching. Managers may use only have periodic contact with their employees may not be using the relationship-focused behaviors of managerial coaching, just as managers who focus on relational behaviors may not be using the task-related behaviors. Although many leadership styles fall into either a task or relationship category,

managerial coaching incorporates and builds on aspects of both task and relationship orientation, creating a new style that moves beyond other types of leadership and management.

Managerial coaching can be thought of as a combination between the world of coaching (like with sports coaches or life coaches) and management, as the name would suggest. A life coach would focus on personal development and related goals that may or may not include career goals, but would not primarily focus on workplace tasks and improvement. Nearly all types of management include a focus on completing and improving work-related tasks and/or relationships in the workplace. Managerial coaching combines these approaches. Workplace tasks and relationships are improved in the context of personal development. While a manager might typically review performance or organizational goals, managerial coaching would also include personal goals. This personalizes the manager-employee relationship above and beyond just meeting performance goals or workplace issues that arise.

One problem with managerial coaching is that it has not been consistently defined or understood. By working with a newly created measure of managerial coaching, the current studies aim to help better understand managerial coaching, and therefore make it easier to distinguish it from other workplace constructs. However, even though managerial coaching shares similarities with other constructs, there are some distinctions that have been established. Training and managerial coaching are arguably both developmental activities, but they are not the same construct. Similarly, although managerial coaching and management in general may share some of the same goals, managerial coaching represents distinctive approach. Many leadership styles consist of task-oriented or relationship-oriented behaviors, but managerial coaching moves across those boundaries and leverages a variety of behaviors that are both task and relationship oriented. Therefore, one defining characteristic of managerial coaching is the

blend of task and relationship behaviors. When compared to coaching in general, managerial coaching takes place in a different context because it is by definition coaching that occurs between a manager and an employee as opposed to a separate coach. This influences how managerial coaching is defined and conceptualized because unlike other forms of coaching it must account for the unique relationship between manager and employee. This relationship is a continuous, long-term one that typically includes daily interaction, task management, and a focus on organizational goals. These unique aspects of the manager-employee relationship must be combined with the tenants of traditional coaching in order to conceptualize, define, and measure managerial coaching. Managerial coaching research is still in its early stages. In order to learn more about this construct, it is important to define it empirically using a standardized measure.

Measures of Managerial Coaching

Once managerial coaching has been defined, it is important to consider how to operationalize and measure the construct. This can be particularly challenging with managerial coaching since it is not a singular occurrence, but rather a pattern of developmentally focused behaviors that take place across time. However, in order to empirically test managerial coaching, it is critical to be able to consistently measure it and provide evidence that it is a predictive, distinct construct. The measurement of managerial coaching has changed across time, and these changes have led to important differences in how managerial coaching is studied and viewed.

One of the earliest examples of an attempt to operationalize managerial coaching came from Ellinger and Bostrom (1999), who conducted a qualitative critical incident study on managerial coaching. They defined managerial coaching as an on-the-job process by which managers facilitate learning through relationships with their employees (Ellinger & Bostrom,

1999, p. 753). The study stemmed from the recognition that although the concept of manager as facilitator of learning had received significant attention in practice, there was a gap in the empirical understanding of the concept. The researchers' theory was based on the assumption that managers' belief systems influence their managerial approach; managers who see their role as facilitators of learning are then more likely to engage in learning episodes that finally serve as a catalyst for employee learning. The goal of their study was not to test the framework, but to define the behaviors that are associated with the role of facilitator of learning.

To achieve this goal, the study included twelve managers who were recognized as being exemplary facilitators of learning through the use of a managerial coaching management style (Ellinger & Bostrom, 1999). Each manager was interviewed and asked to describe at least four critical incidents in which they were effective or ineffective at facilitating employee learning. The researchers collected a total of 56 critical incidents and proceeded to use content analysis to analyze the data. The critical incidents were blindly analyzed and a trend of thirteen distinct categories of behavior emerged. The researchers then divided the thirteen themes into two clusters. The first cluster was that of *empowering behaviors* and focused on how in managerial coaching, there was a balance of power in the relationship between manager and employee and the focus was on the individual employee and not the manager. This category contained four behaviors that were common in the critical incident survey: a) question framing to promote critical thinking (which consisted of the manager posing questions to the employee in a way that caused them to think critically and not just arrive at an answer, such as asking about both the positive and negative aspects of an idea), b) being a resource (including allowing the employee to come to management for questions and information), c) transferring ownership (managers' expect their employees to be accountable and assume responsibility although they are receiving

help from their manager), and d) not providing answers for employees (so, instead of simply stating the answers to problems and questions, instead guiding the employees thinking so they are able to arrive at the answers themselves). The second was classified as the *facilitating cluster* and contained nine behaviors: a) providing feedback, b) soliciting feedback, c) working things out together, d) creating learning, e) setting and communicating expectations, f) stepping into other to shift perspectives, g) broadening employee perspectives, h) using examples, and i) engaging others to facilitate learning. The researchers argued that the findings provide a foundation for other researchers that want to learn more about the practices that are required to build a learning organization. Although the study was limited by its qualitative nature and the use of a small sample, it developed an initial taxonomy of the behaviors that are manifested in managerial coaching. Qualitative studies limit the ability to draw general, testable conclusions, especially when using small samples. The question remained as to whether the experiences of these twelve managers would in fact generalize to other managers. Even though qualitative studies can positively inform future research, a qualitative study with a small sample is not adequate on its own.

Based on the findings of the aforementioned 1999 study, Ellinger, Ellinger, and Keller (2003) developed an empirical measure of managerial coaching behavior. The measure was developed as part of a study of supervisory coaching behavior that set out to develop a better understanding of managerial coaching's impact on employee job satisfaction and performance in an industrial setting. Two measures were created. One was meant to gather employees' perceptions of managers' coaching behaviors and the other was designed to collect managers' self-perceptions of those same behaviors. Each of the two measures contained eight behaviorally-based items based on their previous study, in which Ellinger and Bostrom (1999)

found thirteen themes that provided an initial taxonomy of managerial coaching behaviors. Of the thirteen themes, the authors selected eight to create an eight-item coaching behavior measure. Those eight themes were selected “because they could be easily translated into items that could be understood by front-line employees and supervisors while maintaining face validity” (Ellinger, Ellinger, & Keller, 2003, p.442). The authors used to corroborate the relevance of the eight behaviorally anchored items by linking these behaviors with positive outcomes in the workplace such as job satisfaction and performance. Sample items included: “My supervisor uses analogies, scenarios, and examples to help me learn” (employee version) and “I use analogies, scenarios, and examples to help my employees learn” (supervisor version). This measure, which had an acceptable Cronbach’s alpha of .83 for the manager sample and .94 for the employee sample, provided a good foundation for evidence-based measures of managerial coaching, several limitations notwithstanding. First, the measure only included eight items. As a result, there are several aspects of managerial coaching that have been more recently supported in the literature that are not included in this measure, such as a focus on the developmental trajectory of the employee. Additionally, a measure that includes more than eight items could provide a more reliable measure of managerial coaching. In order to more accurately measure all aspects of managerial coaching and outline a specific, reliable, and comprehensive set of behaviors, it is necessary to use a more robust measure than the one used by Ellinger et al., (2003).

Based on their review of the coaching literature, McLean et al., (2005) developed a four-dimensional measure of managerial coaching. The four dimensions are: 1) open communication with others; 2) taking a team approach to tasks; 3) valuing people over tasks; and 4) accepting the ambiguous nature of work. In their measure, each dimension corresponded to five questions,

for a total of 20 items. Sample items included “When I share my feelings with my manager, my manager appears to be comfortable.” (open communication) and “In discussion with me, my manager focuses on my individual needs.” (value people). Across two studies with three samples and a total of 644 participants, they found support for all four of the dimensions through a factor analysis (McLean et al., 2005). However, other researchers have criticized this scale. Peterson and Little (2005) argued that even the 20-item scale did not include all of the components that, according to the literature, make up managerial coaching. Additionally, Peterson and Little (2005) criticized McLean and colleagues for basing much of their literature review on sports coaching instead of coaching in an organizational context, which limits the theoretical implications for the business world. According to the specificity-matching hypothesis, domain-specific constructs are better predictors of domain-specific outcomes (McWilliams, Nier, & Singer, 2013). Therefore, when studying business-related outcomes (in contrast to more general outcomes of coaching) it is important to focus on business-related predictors such as workplace communication and feedback in order to most accurately examine those relationships.

Based on this critique, Park (2007) conducted a study that further refined McLean et al.’s (2005) managerial coaching skill measure by adding a fifth dimension – facilitating development, which the author defined as the use of specific techniques by managers in order to facilitate their employees’ development. Park used a literature review, subject matter experts, and pilot testing to determine what the fifth dimension of the scale should include. Additionally, both McLean and Park relied on expert sorting of the items and statistical validation in narrowing down larger item pools to reach the items and behaviors included on their measures. Both the original McLean et al., (2005) and revised Park (2007) measures represented steps in

the right direction for managerial coaching research by both conceptualizing and measuring managerial coaching as a multi-dimensional construct, and providing evidence for these dimensions. However, the Park (2007) measure was still based on sports coaching literature, so the addition of the developmental dimension addressed some of the major critiques by including a more comprehensive list of dimensions and behaviors but failed to address other critiques about the specificity-matching hypothesis. The inclusion of sports coaching as foundational elements in the McLean scale is a limitation even after the Park (2007) revision.

As various measures of managerial coaching emerged in the literature, Hamlin et al., (2006) conducted a study of managerial coaching behaviors with the specific aim of comparing the results of various managerial coaching effectiveness studies and cultures. The study compared the findings of three distinct sets of studies that included the Ellinger “managerial coaching behaviors in learning organizations” studies (Ellinger, 1997; Ellinger & Bostrom, 1999), Beattie’s “managerial facilitative behavior” studies (Beattie, 2002a, 2002b, 2004), and Hamlin’s (2004) “generic model of managerial and leadership effectiveness” study. All of these studies were based on qualitative methodology and consistently used critical incident technique and in-depth semi-structured interviews (Hamlin et al., 2006). The researchers used blind, independent file-card coding to compare each of the behaviors measured in the previous studies. Using this method, the researchers found a considerable amount of similarity and congruence between the studies, with the majority of the behaviors measured in each mapping onto behaviors present in the other measures. Even though the studies varied in the number of behaviors they identified and how specific those behaviors were, when they were compared they fell into similar categories of behavior. For example, Hamlin’s (2004) empowerment and delegation category mapped onto both the more specific “question framing and encouraging

employees to think through issues” category in Ellinger’s (1997, 1999) work and the more broad thinking category in Beattie’s (2002) model. Although the measures had been derived from different expert groups in various cultures, many of the same managerial coaching behaviors emerged in each case. Therefore, this cross-cultural study provided support for the validity and generalizability of the findings of the studies it compared and suggested that the behavioral aspects of managerial coaching are applicable and can be measured in various cultural settings. Across time and culture, many of the same consistent behaviors emerged as part of managerial coaching.

Hamlin et al. (2006) used their research to outline many of the trends that had emerged over time regarding which behaviors were used in managerial coaching (see Table 2 for a comparison of the dimensions of commonly used managerial coaching measures). First, managerial coaching behaviors include relationship-focused behaviors (such as building trust and showing genuine care for employees). Also, managerial coaches help employees to assess their strengths and weaknesses (by doing things like providing individualized feedback and encouraging critical thinking about development). Managerial coaches also provide challenges for their employees (for example, they may challenge their employees’ thinking on a topic or guide them through practice in dealing with difficult situations). Support is another common behavior for managerial coaches, who frequently engage in activities such as providing resources for employees and showing empathy. Finally, managerial coaching involves helping employees obtain results by engaging in behaviors such as helping to set goals. According to Hamlin et al.’s (2006) review, all of these behaviors have been supported in the literature as themes and examples that make up what it means to use the managerial coaching management style in organizations.

In summary, managerial coaching measures to date have frequently failed to capture the construct of managerial coaching in its entirety as defined here, due to both a variety of definitions and a lack of comprehensive behavioral measures. Since managerial coaching is a management style marked by the use of behaviors to build relationships, it is important that measures of managerial coaching include behaviors across a variety of categories in order to more accurately capture managerial coaching. It is also important to note that the relative lack of empirical research on managerial coaching, and the inconsistencies in the research that does exist, is problematic for accurately measuring managerial coaching. For example, studies to date have not used multiple measures of managerial coaching and compared them empirically, with the comparison between measures being limited to theoretical comparisons. Additionally, studies have rarely compared measures of managerial coaching to other measures of management, so evidence is limited in that regard as well. Although the proposed studies are not able to address all of these issues, they do aim to add clarity and specificity around managerial coaching in the hope that future research can include a more comprehensive measure that has an established relationship with workplace outcomes. Even considering these issues, several important similarities and trends across various measures of managerial coaching have emerged. Most measures of managerial coaching include relationship-focused behaviors, behaviors that help employees assess their strengths and weaknesses, behaviors that challenge employees, behaviors that support the employee, and behaviors that help employees set and accomplish goals (Hamlin et al., 2006). Additionally, managerial coaching does not include some of the behaviors that have previously been associated with management or leadership, such as control over employees, focus on the manager, and training that occurs outside of the manager-employee relationship (Ellinger et al., 2005; Hankins & Kleiner, 1995). Many previous measures of

managerial coaching have failed to include all of the behaviors that comprise managerial coaching because of a limited number of items or items that were not based in an organizational setting. A complete measure of managerial coaching will measure all of these behaviors concurrently to accurately reflect managerial coaching as a whole.

The Current Measure

In response to the critiques of existing measures of managerial coaching, the Center for Creative Leadership (CCL) developed the Coaching Effectiveness 360[®] (CE 360) in 2011. The measure was created by CCL for practical use in organizations, and was based on an extensive literature review of previous measures of managerial coaching. However, the CE 360 differs from other measures in that it is made up of a greater number of items, these items are all behaviorally based, and it is based on previous coaching research in the organizational domain – as opposed to the sport coaching literature like the McLean (2005) scale, for example. The CE 360 is designed to both reflect previous literature regarding managerial coaching and address the shortcomings of previous measures of the construct.

The CE 360 is based on the RASCR[®] framework, which was first introduced by Ting and Riddle (2006). The purpose of the RASCR[®] framework was to provide a practical outline of various types of behavior that managers could easily understand. Even though it is practical in nature, this five-part framework is based in the managerial coaching literature and details the five broad behavior sets (called critical components) of managerial coaching and the more specific behaviors within those sets that managers exhibit when engaging in managerial coaching. The first critical component is called *relationship* and includes commitment by the employee and the manager, building rapport, and a collaborative approach based on mutual respect. The second critical component is called *assessment* and it focuses on helping employees make sense of

feedback as it is delivered as part of the frequent day to day interactions between managers and employees, as well as in helping employees understand different perspectives in order to solve problems. The third component is *support*, in which the manager works to provide the employee with individualized help and attention to allow for self-sufficiency and motivation. The fourth dimension is *challenge*, by which managers ask questions, encourage new ideas, and remove barriers for the employee. Finally, the fifth component, called *results*, focuses on the establishment of a development plan, including such activities as setting clear goals and identifying the behaviors that will help employees achieve those goals. This five-part model is the underlying structure for the CE 360. In this model, managers engage in all five components of managerial coaching continuously as they interact with their employees.

The RASCR[®] framework takes the five high-level critical components of managerial coaching and further divides them into nine competencies, which are each linked with behaviors (Ting & Riddle, 2006; see Table 3). All definitions included here are taken from Ting and Riddle (2006) and are reproduced here with permission (P. Braddy, personal communication, June 4, 2012). In terms of the development of the measure, CCL started with the five high-level critical components described above, and then develop competencies for each critical component. The competencies were developed based on the managerial coaching literature, as well as the use of subject matter experts to develop and fine-tune the items that make up the nine competencies.

The CE 360 includes 52 of these behaviors, and participants are asked to respond to those items on a seven-point frequency scale, from never to always. This structure provides several benefits. Theoretically, the movement from more general critical components to specific

Table 3

RASCR® Model and Corresponding Coaching Effectiveness 360® Sample Items

Critical Component	Competency	Definition	Sample Item
Relationship	Establishes Boundaries	Establishes roles and clarifies the purpose of the coaching relationship	Takes time to clarify roles
	Builds Trust	Displays behaviors that increase the sharing of information, ideas, emotions and insights	Is fair and ethical
Assessment	Creates Awareness through Feedback	Helps others use self-reflection as a tool for clarity about their current situation	Explores the gap between current performance and desired performance
	Encourages Self-Discovery	Encourages new ways of thinking	Helps employees notice when they repeat ineffective behaviors
Support	Listens for Understanding	Uses active listening skills to truly hear what others are trying to say	Demonstrates understanding by restating or summarizing what others say
	Sustains Momentum	Helps others stay motivated throughout the change process	Holds employees accountable for achieving their desired goals
Challenge	Challenges Thinking and Assumptions	Encourages the practice of new behaviors	Encourages employees to generate alternative solutions

(continues)

Table 3 (continued)

	Promotes Practice	Uses active listening skills to truly hear what others are trying to say	Role plays difficult conversations with employees to increase confidence
Results	Sets Goals	Helps others set challenging and meaningful goals to increase their effectiveness	Aids employees in identifying goals that will have the greatest impact

Note. RASCR[©] model reproduced with permission of the copyright owner.

behaviors allow for a clear connection between the definition of managerial coaching and its operationalization in the CE 360.

From a measurement perspective, specific, behavioral items that are based on frequency allow for more accurate responding (Hansbrough, Lord, & Schyns, 2015). In other words, it is better to ask how frequently a supervisor helps employees to notice when they repeat ineffective behaviors rather than asking whether or not the supervisor encourages self-discovery. Finally, the RASCR[©] framework is beneficial from a practical perspective, with easy-to-understand feedback for supervisors about what areas they may need to improve on to be a more effective managerial coach and exactly which behaviors they should be engaging in. The CE 360 was developed with these practical outcomes in mind by the Center for Creative Leadership (CCL) and, along with the literature on managerial coaching, also considered practitioner-based models and the competencies for coaching outlined by the International Coach Federation.

Although the practical utility of the CE 360 is meant to make it more useful for organizations, it also creates problems due to the lack of empirical evidence. The RASCR[©] framework is recent, and empirical evidence using this framework is extremely limited. Study One will therefore focus on providing further empirical evidence on the psychometric properties of the measure,

with a possible deleting or regrouping of any of the items if necessary based on the results of an exploratory factor analysis (EFA) using a large archival dataset. Additionally, it is important to consider the relationship of the CE 360 to previous measures of managerial coaching. Although direct evidence regarding the framework and the measure is limited, it was created based on previous research using other measures, and therefore linkages can be made between the current measure and previous measures of managerial coaching. The items included in the CE 360 build on previous models and measures of managerial coaching (see Table 4). For example, the competency “creates awareness through feedback” in the RASCR© framework is similar to “participative and supportive leadership” in the Hamlin (2004) model, “providing feedback to employees” in the Ellinger (1997) model, and “assessing” in the Beattie (2002a) model – in which assessing was defined as providing feedback and recognition. However, the CE 360 goes above and beyond previous measures to provide a more comprehensive measure of the behaviors that make up managerial coaching. These behaviors relate to both work and personal development.

Reliability and Validity of the Coaching Effectiveness 360

After developing of the CE 360, CCL conducted an initial validation study using a sample that included 245 managers (P. Braddy, personal communication, June 4, 2012). The current study used a sample of 2,003 managers. The sample sizes described above are only referencing the number of managers who were evaluated by their direct reports, peers, superiors, and others. Only managers’ self-ratings and director report ratings will be used for the present studies. Internal reliability analyses showed that all 9 competencies had Cronbach’s alphas

Table 4

Comparison of Managerial Coaching Models with Behavioral Examples

Authors	Ellinger (1997)	Beattie (2002a)	Hamlin (2004)	Ting & Riddle (2006)
Component	Setting and Communicating Expectations	Standard-Setting	Proactive Management	Establishes Boundaries
Behavior	Setting expectations with learners and communicating their importance	Standard setting by outlining or encouraging an acceptable level of performance	Sets and maintains high standards for self and others	Takes time to clarify roles
Component	Being a Resource	Being a Role Model	Personal Management	Builds Trust
Behavior	Providing resources, information, and materials to learners	Role model by behaving in a manner that people respect and wish to emulate	Gets to know staff and develops in them a sense of trust	Leads by example
Component	Providing Feedback	Assessing	Proactive Management	Creates Awareness through Feedback
Behavior	Providing observational, reflective, and third-party feedback	Provides feedback and recognition	Ensures people follow procedures	Helps employees make sense of their feedback
Component	Broadening Employee Perspectives	Thinking	Proactive Leadership	Encourages Self-Discovery
Behavior	Encouraging learners to think outside of the box	Reflective or prospective thinking through the process of taking time to consider what has happened	Helps team members learn from their mistakes	Helps employees notice when they repeat ineffective behaviors

(continues)

Table 4 (continued)

Component	Stepping into Other to Shift Perspectives	Caring	Personal Management	Listens for Understanding
Behavior	Stepping into another person's shoes to experience their perspective	Empathy by showing understanding of another's situation	Actively listens to the views and opinions of staff	Listens carefully to the ideas and suggestions of others
Component	Using Analogies, Scenarios, and Examples	Advising	Proactive Leadership	Challenges Thinking and Assumptions
Behavior	Personalizing learning situations with examples	Coaching through discussion and guided activity	Provides active support, guidance, and coaching	Uses metaphors and stories to challenge current thinking
Component	Creating and Promoting a Learning Environment	Challenging	Empowerment and Delegation	Promotes Practice
Behavior	Creating formal and informal opportunities for employees to grow and develop	Challenging by stimulating people to stretch themselves	Allows staff to develop and experiment with their own ideas	Encourages employees to take reasonable risks
Component	Setting and Communicating	Being Professional	Proactive Management	Sets Goals
Behavior	Expectations	Standard setting by outlining or encouraging an acceptable level of performance	Produces detailed plans and procedures	Assists in establishing specific milestones for employees' goals

Note. This table compares the different components outlined across different commonly used managerial coaching models. It also provides examples of behaviors associated with each component.

above .75, with the alphas for the direct report ratings ranging from .87 to .94 (see Table 5). This suggests that across rater groups, the items used for each competency were reliable. Additionally, when direct reports were rating their managers, all 9 competencies were highly correlated with one another (see Table 6). All correlations were significant and ranged from .77 to .92, suggesting that the competencies may not represent distinct dimensions and instead all speak to one underlying construct-managerial coaching. It is also possible that the factors did not emerge due to method bias, which will be explored further in Study One.

Table 5

Reliabilities (Cronbach's Alpha) for each Competency in The Coaching Effectiveness 360®

Component	Competency	Self	Boss	Peers	Direct Reports	Others
Relationship	Establishes Boundaries	.75	.79	.82	.87	.80
	Builds Trust	.77	.84	.90	.93	.87
Assessment	Creates Awareness through Feedback	.83	.87	.91	.91	.91
	Encourages Self-Discovery	.76	.85	.88	.89	.90
Support	Listens for Understanding	.75	.84	.90	.93	.90
	Sustains Momentum	.77	.85	.89	.90	.91
Challenge	Challenges Thinking and Assumptions	.75	.83	.89	.91	.89
	Promotes Practice	.76	.85	.85	.88	.87
Results	Sets Goals	.81	.87	.87	.94	.88

Note. $n = 245$ for all analyses. Data from initial CE 360 validation provided by CCL (P. Braddy, personal communication, June 4, 2012). Reproduced with permission.

An exploratory factor analysis (EFA) was conducted to further investigate the dimensionality of the CE 360. All 52 items loaded onto one factor, which had an eigenvalue of 31.79 and explained over 61% of the variance. This suggests that the initial measure's items consisted largely of a single factor, which was further confirmed by a confirmatory factor analysis (CFA), which showed that neither a five-factor model (based on the critical components

of the RASCR[®] framework) nor a nine-factor model (based on the competencies) was supported. These results could be due to the design of the CE 360, which was intended to have nine categories for practical purposes, as opposed to any empirical considerations based on previous

Table 6

Means, Standard Deviations, and Competency Correlations for The Coaching Effectiveness 360[®]

Competency	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Establishes Boundaries	5.59	.73								
2 Builds Trust	5.77	.83	.88							
3 Creates Awareness through Feedback	5.47	.68	.87	.83						
4 Encourages Self-Discovery	5.22	.78	.85	.80	.91					
5 Listens for Understanding	5.47	.81	.83	.87	.84	.80				
6 Sustains Momentum	5.56	.70	.84	.83	.88	.83	.81			
7 Challenges Thinking and Assumptions	5.34	.74	.80	.79	.85	.92	.80	.79		
8 Promotes Practice	5.22	.76	.81	.80	.89	.91	.83	.83	.91	
9 Sets Goals	5.32	.78	.85	.77	.89	.87	.79	.90	.82	.87

Note. All correlations were significant at $p < .01$ level. *M* = mean, *SD* = standard deviation. $n = 245$. Responses were given on a scale from 1 to 7. Data from initial CE 360 validation provided by CCL (P. Braddy, personal communication, June 4, 2012). Reproduced with permission.

measures. It is possible that the items all speak to one construct, managerial coaching, with behaviors only being categorized in order to provide actionable feedback to managers. So, although practical distinctions can be made between competencies such as setting goals and listening for understanding when giving feedback and instructions to managers, in the context of managerial coaching these behaviors may be distinguishable, yet highly correlated. As part of the development of the measure, content validity evidence was provided through subject matter experts (SMEs) who were asked to rate the relevance of each behavior to the respective competencies. For criterion-related validity, the direct report ratings were compared to ratings made by each manager's boss (see Table 7). For all nine competencies, the direct report and

boss ratings were significantly positively correlated. Correlations ranged from .26 to .31 across the competencies.

Table 7

Direct Report and Boss Rating Correlations for The Coaching Effectiveness 360®

Component	Competency	Correlation
Relationship	Establishes Boundaries	.30
	Builds Trust	.30
Assessment	Creates Awareness through Feedback	.26
	Encourages Self-Discovery	.31
Support	Listens for Understanding	.30
	Sustains Momentum	.29
Challenge	Challenges Thinking and Assumptions	.28
	Promotes Practice	.31
Results	Sets Goals	.32

Note. All correlations significant at the $p < .01$ level. $n = 245$. Data from initial CE 360 validation provided by CCL (P. Braddy, personal communication, June 4, 2012). Reproduced with permission.

A recent study conducted using the CE 360 identified a 3-factor solution as the best fit for the observed data (Cospito, Kolb, & Musterteiger, 2017). The study included 447 managers compared to the 245 from the original validation study discussed above. This finding suggests that a larger sample size might be needed in order to establish the best factor solution for the CE 360. The current study has a sample size of 2,003 managers, which provides an opportunity to test whether a larger sample size provides a factor solution that is not unidimensional as suggested by the initial validation study conducted by CCL.

In summary, additional research is needed to provide information regarding the psychometric properties of the CE 360, and potentially update the measure by removing items based on their reliability and factor loadings across subscales to ensure that the best set of possible items is used. The purpose of Study One is to better understand the (a) reliability, (b)

convergent validity, and (c) underlying evidence and structure for the CE 360. Even though an initial validation study has been conducted, research on the psychometric properties of the measure has not been conducted using the increased sample size of 2,003 managers as opposed to the sample size of 245 managers used in the initial psychometric work described in the preceding paragraphs. The current study will therefore clarify the psychometric issues with the measure using a large sample and will also include the removal of items from the measure as necessary, particularly if the analyses indicate that the items represent a single factor, as has been suggested in previous validation work.

Overall, there are three scenarios that can be expected of the psychometric structure of the measure. First, the measure could be unidimensional, in which case the CE 360 would be measuring a single factor. Second, multiple factors could be found representing the five practical components proposed by the theory underlying the current measure – which is consistent with the literature as noted by the critical components found in other measures of managerial coaching. It is also plausible but unlikely, based on the initial validation with the smaller sample size, that nine different factors could be supported. The third scenario is that the measure is found to have a different number of distinct factors (i.e., other than five or nine factors).

Based on a review of the managerial coaching literature, it is reasonable to hypothesize that the items will fit into a five-factor structure. However, the primary purpose of Study One will be to test this assertion and use a statistical analysis to determine the factor structure of the measure. It is possible that validity evidence thus far has not had a large enough sample size to accurately detect distinctions among the groups of items. If multiple factors emerge, future hypotheses will consider this structure and assess the measure's relationships with other constructs as well as with different measures of managerial coaching. If only one factor

emerges, the measure will be modified by removing problematic items (e.g., removing items with high loadings on more than one factor), and a new version of the measure will be used moving forward for Study Two. Overall, the purpose of Study One is to determine the psychometric properties of the measure and make any necessary changes to most accurately reflect and assess managerial coaching. It is important to note that as a multirater assessment, the CE 360 collects data from different perspectives (i.e., manager of interest self-rating, boss, superiors, direct reports, peers, and others). For the present studies only, self-ratings of the manager of interest and the ratings of their direct reports will be used. Both self-ratings of manager and direct report ratings will be used across *The Coaching Effectiveness 360*[®] (i.e., measurement of frequency of use of managerial coaching behaviors) and the general coaching effectiveness scale. Only direct report ratings will be used for the perceived supervisor support scale, the occupational self-efficacy scale, and the employee engagement scale. It is important to note that previous empirical research supports the notion that the factor structure of managerial effectiveness and performance measures is consistent across rater groups (Faction & Craig, 2001; Scullen et al., 2003). Study One will also assess whether this findings apply to the CE 360 across manager self-ratings and direct report ratings.

Before the proposed relationships of Study Two are tested, an EFA and CFA will be conducted to determine if and of any items in the measure need to be removed to more accurately assess the managerial coaching construct and what factors can be used when testing the hypotheses and relationships outlined in Study Two. Additionally, reliability of the measure will be assessed using Cronbach's alphas. In order to provide evidence of the construct validity of the measure, ratings of managerial coaching will be correlated with a measure of general coaching effectiveness and perceived supervisor support, two constructs that should relate to

managerial coaching. Finally, the factor structure will be compared across rating groups to assess consistency between direct-report ratings and manager self-ratings. Therefore, the results of Study One will not only provide general needed statistical evidence regarding the measure; they will also potentially provide a revised set of items and underlying structure of the measure to be used for hypothesis testing in Study Two. The hypotheses for Study One are as follows:

Hypothesis 1a: *The Coaching Effectiveness 360*[®] items will fit best into a five-correlated-dimensions model.

Hypothesis 1b: Reliability levels for direct report ratings of their manager's frequency of use of coaching behaviors across all nine Competencies in *The Coaching Effectiveness 360*[®] will be above the acceptability threshold of .70 for Cronbach's alphas.

Hypothesis 1c: Direct report ratings of their manager's frequency of use of coaching behaviors will significantly, positively correlate with general ratings of coaching effectiveness made by direct reports about each manager.

Hypothesis 1d: Direct report ratings of their manager's frequency of use of coaching behaviors in will significantly, positively correlate with managers' ratings of their own general coaching effectiveness.

Hypothesis 1e: Direct report ratings of their manager's frequency of use of coaching behaviors in will significantly, positively correlate with direct report ratings of supervisor support.

Hypothesis 1f: The factor structure of *The Coaching Effectiveness 360*[®] will be consistent across rating groups (i.e., manager self-ratings and direct report ratings).

Correlates of Managerial Coaching

The purpose of Study Two is to assess the relationship between managerial coaching behaviors, occupational self-efficacy, and employee engagement. Once managerial coaching began to be operationalized and linked to behaviors, researchers then examined those behaviors to establish relationships between managerial coaching and work outcomes. As with management in general, some of the main goals of managerial coaching are to increase employee performance, satisfaction, and engagement (Ellinger et al., 2003). By focusing on development, learning, and relationships, managerial coaching should effectively increase positive outcomes for employees, and this increase was one of the main reasons that managerial coaching became so popular from a practical perspective. However, it is important that empirical studies provide evidence that managerial coaching does in fact relate to positive outcomes to support these theories and better understand these relationships.

There are several specific positive outcomes that have been related to managerial coaching behaviors. Ellinger et al. (2003) used their Supervisor/Line Manager Coaching Behavior Measures to explore the link between managerial coaching and employee performance and satisfaction. The managers in the study completed a measure of employee performance and their employees completed a measure of job satisfaction. Using a convenience sample of 18 distribution centers spanning six organizations, a total of 438 employees and 67 managers completed the measures and employees were matched with their specific managers for a nested analysis. The results of the study indicated that the managerial coaching behaviors measured by Ellinger et al. (2003) were positively related to both employee satisfaction and performance. Forty four percent of employees' perceptions of job satisfaction could be attributed to managerial coaching, along with 11% of their performance. This study provided evidence for the idea that

managerial coaching behaviors such as focusing on their employees were related to employee satisfaction and performance.

Park (2007) studied the relationship of managerial coaching, defined as behaviors that encourage employee development through open communication, a team approach, valuing people, accepting ambiguity, and facilitating development, with personal learning and organizational commitment. The model was tested using structural equation modeling, with personal learning and organizational commitment included as outcomes and managerial coaching behaviors as predictors. The findings supported the hypothesis that managerial coaching was positively related to personal learning and organizational commitment. In other words, the more employees perceived that their managers engaged in managerial coaching behaviors that focused on employee development, the more likely they were to report personal learning and commitment to the organization as a whole.

Kuzmycz (2011) conducted a study to assess the quality of the relationship between managers and employees as a potential mediator between managerial coaching behaviors and employee engagement. The study was based on employee perceptions—no data from raters' managers were collected. The model proposed in the study theorized that the relationship between managerial coaching behaviors (as measured by Ellinger et al.'s 2003 Line Manager Coaching Behavior Measure) and employee engagement was partially mediated by the quality of the supervisory relationship (defined as leader-member exchange (LMX)). Results indicated that managerial coaching behaviors were positively related to the quality of the relationship (defined as LMX) and employee engagement; however, LMX did not mediate the relationship between managerial coaching behaviors and employee engagement. Additionally, the study investigated managerial coaching behaviors along with other leadership behaviors (consideration, initiating

structure, participative, directive, supportive, and achievement oriented). The study showed that even though both the coaching and leadership behaviors were related to LMX and employee engagement, all of the leadership behaviors loaded onto either a task or relationship orientation. In contrast, coaching behaviors loaded onto both task and relationship orientations. Managerial coaching and other leadership behaviors were related to similar positive outcomes, but managerial coaching behaviors were unique in that they encompassed both relationship and task orientation, both of which are related to employee engagement.

Since managerial coaching is intended to be directly associated with development and learning, it is also frequently associated with improvements in performance for employees (Evered & Selman, 1989; Ladyshevsy, 2010; London, 2003; McLean et al., 2005; Orth & Wilkinson, 1990). Mink et al. (1993) causally linked improvements in performance that were related to coaching with the learning that occurs as a result of managerial coaching, showing that managerial coaching behaviors led to more learning which in turn led to improved employee performance. In other words, studies show that managerial coaching does in fact lead to more learning for employees (defined as the acquisition of new skills and/or knowledge), and that increase in learning is related to increased performance for employees. This increase in performance, along with other positive outcomes, helps make the case for the importance of managerial coaching both from a research and an application perspective.

Employee Engagement

One important outcome that has been linked with managerial coaching is employee engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Over the past several decades, the concept of employee engagement has garnered interest both in academic and practitioner-oriented settings (Macey & Schneider, 2008; Saks, 2006). This surge in popularity

is partly due to the notion, supported by research evidence, that employee engagement acts as an important predictor of employee outcomes, organizational success, and financial performance (Saks, 2006). Much like managerial coaching, the available literature on employee engagement initially stemmed not from academic research, but from practitioner accounts (Robinson, Perryman, & Hayday, 2004). However, more recent research has provided a greater understanding of the concept of engagement in academic circles and the possible mediators by which engagement impacts employee and organizational performance (Rich, Lepine, & Crawford, 2010). Because of the potential impact of employee engagement for both employees and organizations and the need to understand the relationship between managerial coaching and other important constructs in practice and the literature, the current study focuses on employee engagement and its relationship with managerial coaching.

One of the earliest definitions of employee engagement came from Kahn (1990), who defined it as “the harnessing of organizational members’ selves to their work roles” (p. 694). He further defined engagement as “the simultaneous employment and expression of a person’s ‘preferred self’ in task-behaviors that promote connections to work and others, personal presence (physical, cognitive, and emotional) and active, full performances” (Kahn, 1990, p. 700). Kahn’s concept of engagement represented a holistic approach to the self as it encompassed cognitive, emotional, and physical dimensions, an approach Kahn developed by interviewing workers about their own experiences of engagement (Rich et al., 2010). Based on this conceptualization, engaged individuals were described as “being psychologically present, fully there, attentive, feeling, connected, integrated, and focused in their role performances” (Rich et al., 2010, p. 619). Other related definitions of engagement include that of Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002), who defined engagement “as a positive, fulfilling, work-

related state of mind that is characterized by vigor, dedication, and absorption” (p. 74). This definition emphasized the concept of engagement as being a cognitive state and not simply an attitude towards particular tasks or events. Engagement has also been frequently compared and contrasted with the construct of burnout. Maslach, Schaufeli, and Leiter (2001) described the components of engagement as energy, involvement, and efficacy, all of which are diametrically opposed to the three dimensions that constitute the construct of burnout-exhaustion, cynicism, and inefficacy. This claim has been validated by research on burnout and engagement, in which the core dimensions of engagement (vigor and dedication) and two of the three dimensions of burnout (exhaustion and cynicism) were confirmed to be opposites of one another (Gonzalez-Roma, Schaufeli, Bakker, & Lloret, 2006; Saks, 2006).

Macey and Schneider (2008) outlined some of the major complexities of employee engagement. For example, engagement can be conceptualized as a trait, where some employees are inherently more likely to be engaged compared to others, or as a state that employees can move in and out of based on environmental factors (Macey & Schneider, 2008). Additionally, it may be that engagement has both within- and between-person variability, with a variety of individual baselines, or typical levels of engagement, that people may move above or below based on what is happening in their work environment. Macey and Schneider (2008) argued that even with the variability in how researchers conceptualize engagement (as a state, trait, or combination of both), “it does not imply that the concept lacks conceptual or practical utility” (p. 5). In other words, regardless of how it is conceptualized, it still serves as an important factor in organizations. Additionally, the authors go on to state that framing the concept of engagement within a model that incorporates psychological states and subsequent behaviors enhances the practical utility of the concept (Macey & Schneider, 2008). When engagement is conceptualized

as a construct that can be influenced by environmental factors, it becomes even more important from a practical perspective because it can be linked to a broader range of employee and organizational variables.

Engagement itself has been linked with a variety of other employee and organizational outcomes. At the individual level, employee engagement has been found to have a positive influence on well-being (Schaufeli, Taris, & Van Rhenen, 2008), organizational commitment (Hallberg & Schaufeli, 2006; Schaufeli & Bakker, 2004), and job satisfaction (Harter, Schmidt, & Hayes, 2002), and is negatively related to employees' decision to retire and absenteeism (Attridge, 2009). At the group level, employee engagement has been positively linked to financial and business performance (Attridge, 2009; Burud & Tumolo, 2004), reduced employee turnover (Attridge, 2009), and increased customer satisfaction and loyalty (Attridge, 2009; Harter et al., 2002). These wide-reaching benefits speak to the importance of employee engagement for workers and organizations as a whole.

Relationship Between Managerial Coaching and Employee Engagement

Engagement is an important construct not only because of its association with further positive outcomes, but also as an outcome itself in relation to managerial coaching behaviors. Supervisor coaching has been shown to have a positive relationship with employee engagement. Xanthopoulou et al. (2007) argued that supervisor coaching was a job resource for employees, from which they could benefit by becoming more engaged in their work. Kahn (1990) made a similar argument that using managerial coaching (where there is a focus on employees and development) influences employees' evaluations of the meaningfulness of tasks, leading to an increase in engagement. In other words, when employees feel that they are being valued and given opportunities to grow, they assign more meaning to the work tasks they are completing and

become more engaged. Gruman and Saks (2011) argued in their outline of performance management that several components of managerial coaching are positively related to employee engagement, such as developmental feedback and a focus on employee goals. In the context of the JD-R model, where job resources lead to engagement and job demands lead to burnout, managerial coaching is considered a job resource through which employees are able to become more engaged in their work (Schaufeli & Bakker, 2004). Hakanen, Bakker, & Schaufeli (2006) looked at supervisor support as a job resource, with many similarities between supervisor support and the supportive behaviors included in managerial coaching. They found that supervisor support had a positive relationship with employee engagement (Hakanen, Bakker, & Schaufeli, 2006). Outside of the JD-R model, Kuzmycz (2011) studied the relationship between managerial coaching behaviors and employee engagement and found that managerial coaching behaviors have a positive effect on employee engagement.

Theoretically and based on previous research, it is clear that managerial coaching behaviors and employee engagement are expected to have a significant, positive relationship. Managers who use a managerial coaching are likely to be providing employees with valuable information and resources through their day-to-day use of specific behaviors such as help with development, goal setting, and feedback. When managers help employees develop skills such as goal setting through managerial coaching behaviors, employees are then likely to be more invested in the tasks at hand and become more engaged in their work. Therefore, it is expected in the current study that managers who report using managerial coaching behaviors will have employees who report being more engaged.

Occupational Self-Efficacy

First introduced by Bandura (1977), the concept of self-efficacy refers to “beliefs in one’s capabilities to organize and execute the course of action required to manage prospective situations” (Bandura, 1995, p. 2). Since first being introduced into the literature in the late 1970s, the concept of self-efficacy has been studied extensively (Rigotti, Schyns, & Mohr, 2008). In organizational research, self-efficacy has been found to predict important outcomes such as job satisfaction and performance (Judge & Bono, 2001). According to Bandura (1977, 1982), the development of self-efficacy in individuals has four sources: mastery experience, vicarious experience, verbal persuasion, and emotional arousal (Schyns, 2003). *Mastery experience* refers to increased self-efficacy due to the successful execution of a behavior at a previous point in time. *Vicarious experience* refers to an increase in self-efficacy stemming from the observation of another person executing a particular behavior. *Verbal persuasion* refers to an individual’s increased willingness to engage in a particular behavior after being told that they will be able to execute the behavior. Finally, *emotional arousal* refers to the impact that stressful or taxing situations have on an individual’s self-efficacy beliefs; individuals “are more likely to expect success when they are not beset by aversive arousal than if they are tense and viscerally agitated” (Schyns, 2003, p. 198).

Self-efficacy is a general overarching construct, but the concept of OSE refers to the domain-specific conceptualization of the construct in the workplace (Rigotti et al., 2008). Although the basic tenets of self-efficacy extend to the concept of OSE, it is pertinent to highlight, as noted by Bandura (1977), that the assessment of self-efficacy should be specific to the particular task being measured. This is consistent with the notion of specificity matching, which stipulates that both predictor and criterion should have the same level of specificity,

meaning if a criterion is directly related to the workplace the predictor should also be measured and conceptualized in a workplace context (Schyns, 2003). Therefore, OSE refers to “the competence that a person feels concerning the ability to successfully fulfill the tasks involved in his or her job” (Rigotti et al., 2008, p. 239). OSE refers not just to specific tasks, but also to the job as a whole (Rigotti et al., 2008). Additionally, general self-efficacy is not necessarily related to occupational self-efficacy: people may experience varying levels of self-efficacy in different areas of their lives and even though these areas may interact, they are not necessarily dependent on one another (Bandura, 1977). Therefore, OSE is important to consider, even above and beyond general self-efficacy, since it could potentially impact workplace-specific outcomes for employees.

Relationship between Managerial Coaching and OSE

Various workplace antecedents related to managerial coaching, such as encouraging reflection and providing and receiving feedback coaching have been linked to increases in OSE for employees. McDowall, Freeman, and Marshall (2014) conducted a study to determine whether the FeedForward Interview (FFI) method is more effective than traditional feedback as part of a coaching session by measuring self-efficacy before and after the interviews. FFI is a semi-structured interview technique developed by Kluger and Nir (2006) based on Appreciative Inquiry (Cooperrider & Srivastva, 1987) and Feedback Intervention Theory (Kluger & DeNisi, 1996). As described by McDowall et al. (2014), the components of FFI include recalling an event where the employee felt their best, discussing what allowed that event to happen, thinking about the “high point” of that event, and considering future plans or actions. In other words, FFI goes beyond traditional feedback in focusing on the employee, working on critical thinking skills, and moving forward in development. These components that differentiate FFI from

traditional feedback also make it similar to the strategies and the type of feedback given with managerial coaching. The researchers found that self-efficacy significantly increased following FFI compared with those receiving only feedback. The study findings pose important implications for the present study as they demonstrated that coaching could have a significant impact on self-efficacy. Self-efficacy increased as a result of a greater focus on employee development compared to simply delivering feedback to the employee. Methods that included more active roles for managers that resembled coaching led to greater increases in self-efficacy compared to other forms of feedback that did not include coaching behaviors.

OSE has also been directly linked to managerial coaching itself. Xanthopoulou et al. (2007) found that self-efficacy was positively related to several job resources, including supervisor coaching. Employees who reported experiencing more frequent use of coaching behaviors from their supervisor also reported higher levels of self-efficacy compared to those who reported less frequent use of coaching behaviors by their supervisor. Theoretically, managerial coaching behaviors (when consistently applied across time) would enable employee occupational self-efficacy by reinforcing the notion that employees are more capable of controlling their work environment. Empirically, this idea has been supported by research that shows that a supportive climate increases self-efficacy through motivation and goal attainment, especially when compared to job demands such as emotional display requirements of the workplace (Prieto, 2009). In other words, employees who feel supported, through managerial coaching behaviors or otherwise, are more motivated to complete their tasks and are more likely to reach their goals, which in turn increases their self-efficacy (Prieto, 2009). When managerial coaching behaviors specifically are present, employees have higher self-efficacy because they feel more capable of controlling and accomplishing their work-related goals.

In the current study, it is expected that managerial coaching behaviors will be related to higher OSE for employees. Theoretically, employees who are given the opportunity to problem solve and develop through managerial coaching will then be more motivated when completing their job tasks and also more likely to succeed and reach their goals, increasing their self-efficacy. For example, employees who have had conversations with their managers in which they have been guided through considering different options and problem solving will then be more prepared to deal with on-the-job problems. When they succeed at dealing with those problems, they will feel more capable moving forward. Based on the evidence and theory presented in the preceding section, it is predicted that managerial coaching will have a positive relationship with OSE.

Relationship between OSE and Employee Engagement

Bandura (1995) outlined the importance of self-efficacy for the construct of learning. Self-efficacy beliefs influence a variety of behaviors, which in turn can impact if learning will occur (Bandura, 1995; Schyns, 2003). For example, self-efficacy beliefs have been shown to impact the likelihood that an individual will initiate a particular behavior or task, influence the effort spent on trying to accomplish the task, and also impact an individual's perseverance in the face of adversity when trying to complete a particular task, all of which are related to an individual's engagement in a particular task (Schyns, 2003). If employees are persevering, increasing their effort, and succeeding more frequently at tasks, they will also feel more engaged, with more of a personal connection forming between the employee and the tasks that they are working so hard to complete.

Empirically, studies have supported this theoretical relationship. Several studies have found a relationship between self-efficacy and employee engagement, with self-efficacy serving

as a personal resource that is positively related to engagement (Xanthopoulou et al., 2007; Prieto, 2009). Self-efficacy serves as a resource for employees, thereby leading to more rewards such as engagement (as opposed to job demands where employees are less likely to see benefits and more likely to see other harmful outcomes such as burnout). Halbesleben (2010) conducted a meta-analysis that analyzed the relationship of employee engagement with a number of constructs. This meta-analysis looked at hundreds of studies that measured employee engagement and the relationship between engagement and many resources, one of which was self-efficacy. In this meta-analysis, self-efficacy was found to have a strong, positive relationship with engagement, such that people who reported higher levels of self-efficacy were more likely to report higher levels of engagement ($r = .50, p < .01$) to the extent that 25% of the variance in engagement was explained by self-efficacy. This meta-analysis suggests that even using various definitions and measures of self-efficacy, self-efficacy was shown to be a good predictor of employee engagement.

Based on this evidence, it is expected that self-efficacy will predict employee engagement in the current study. Employees who have higher levels of OSE will likely be investing more time and resources in their jobs, making them more likely to report higher levels of employee engagement. When employees are more confident in their abilities on the job, they are more likely to exert effort and persevere in the face of adversity, increasing their engagement in the job (Schyns, 2003).

The Mediating Role of OSE

Several studies have established a link between managerial coaching and employee engagement (Gruman & Saks, 2011). While more empirical support is still needed to address this relationship, research is also needed to explain why or how managerial coaching impacts

employee engagement. Previous research has tested various mediators but failed to find support for them. For example, Kuzmycz (2011) found that managerial coaching did relate to employee engagement, but when LMX was tested as a potential mediator of this relationship the mediation model was not supported. It is theoretically possible that occupational self-efficacy could serve as one such mediator. First, research has shown that managerial coaching and its focus on employee development increase employee self-efficacy (McDowall et al., 2014; Xanthopoulou et al., 2007). Second, research has shown that employee self-efficacy increases employee engagement (Schyns, 2003). So, there is evidence for each of the individual components of mediation. However, there is a lack of research testing the entire mediation model.

From a theoretical perspective, managerial coaching behaviors are thought to increase OSE because they give employees the tools to develop, increase their effort, and to persevere and problem solve as they work (Schyns, 2003). Additionally, managerial coaching is thought to increase employee engagement because it allows employees to experience more workplace success and invest more in their jobs, thereby making them feel more engaged in their work (Gruman & Saks, 2011). Theoretically, the relationship between managerial coaching and employee engagement could be mediated by an increase in OSE. Employees who experience managerial coaching get the tools they need to work through problems and develop in the workplace, those tools increase their OSE as they are able to handle and persevere through various situations on the job, and finally they become more engaged as they see themselves develop and feel more confident in their work. So, not only can research allow for a better understanding about the relationship between managerial coaching and employee engagement, it can also help to answer the question of how managerial coaching is able to increase employee engagement - through an increase in OSE.

Baron and Kenny (1986, p.1177) postulated three conditions that must be present in order to establish a mediating relationship. First, there must be a significant relationship between the predictor (i.e., managerial coaching behaviors) and the outcome variable (i.e., employee engagement). Second, the predictor (i.e., managerial coaching behaviors) must be significantly related to the mediator (i.e., OSE). Third, the mediator (i.e., OSE) must be significantly related to the outcome variable (i.e., engagement). Finally, a mediation effect is present when all these conditions hold and the relationship between the predictor (i.e., managerial coaching behaviors) and the outcome (i.e., employee engagement) becomes weaker (i.e., partial mediation) or nonsignificant (i.e., full mediation) after the inclusion of the mediator (i.e., OSE).

Research supports this theoretical mediation relationship. Xanthopoulou et al. (2007) found that self-efficacy partially mediated the relationship between supervisor support and employee engagement, such that the relationship between supervisor support and employee engagement was explained by self-efficacy. Prieto (2009) further supported this finding by showing that social support, a job resource similar to certain aspects of managerial coaching such as compassion and individual attention, plays a motivational role for employees, increasing employee engagement by increasing employee self-efficacy around constructs such as goal attainment. Employees who experience social support are more engaged as they have higher self-efficacy when it comes to achieving their work-related goals. Other researchers have also found support for the idea that the link between managerial coaching and employee engagement can be explained by an increase in self-efficacy (Bakker & Demeterouti, 2007; Bakker, Albrecht, & Michael, 2011).

In the current study, it is expected that occupational self-efficacy will partially mediate the relationship between managerial coaching and engagement. The proposed mediation is

based on the theory that when managers frequently use managerial coaching behaviors at work, employees' perceptions of their own abilities improve, leading to higher levels of employee engagement. The increase in occupational self-efficacy positively impacts employee engagement by providing resources and support for employees to feel like they have everything they need to succeed. A partial mediation is expected as the study does not include all possible mediators of the processes by which managerial coaching behaviors influence employee engagement. The current study uses both a new measure of managerial coaching and a large sample in an organization. These distinctions are important, both for better understanding managerial coaching and also for adding to the literature regarding the relationship of managerial coaching to various outcomes. Based on previous research, OSE should mediate the relationship between managerial coaching and employee engagement (see Figure 1). The relationship between managerial coaching and employee engagement will be explained by a relationship with occupational self-efficacy. The aim of the current study is to explore the relationship between all three of these variables. The resulting hypothesis is as follows:

Hypothesis 2: Employee occupational self-efficacy partially mediates the relationship between managerial coaching behaviors and employee engagement such that the frequency of use of coaching behaviors by managers as reported by employees will positively, significantly correlate with employee engagement, with the relationship being explained by a positive, significant relationship of managerial coaching behaviors with employee occupational self-efficacy.

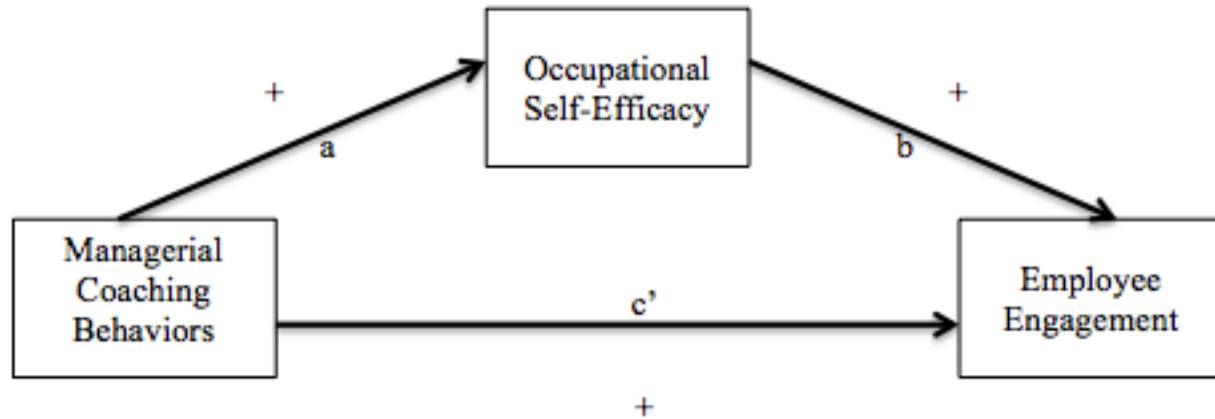


Figure 1. Proposed mediation relationship between managerial coaching behaviors, occupational self-efficacy, and employee engagement. This figure illustrates the proposed relationship between the three study variables.

Summary

Managerial coaching is the result of years of research and development in the areas of coaching, leadership, and management. While the construct shows potential in the workplace, problems exist with the definition, distinction, and measurement of managerial coaching. To avoid managerial coaching becoming a buzzword in practice with little or no theoretical support, empirical research is needed to help clarify exactly what managerial coaching is and how it related to other important outcomes in the workplace. The current studies address the problems outlined here and contribute to the needed body of empirical literature in several ways.

First, the definition of managerial coaching outlined in this chapter addresses shortcomings of previous definitions and helps to clarify what managerial coaching is and how it is different from other related constructs. Managerial coaching is not a management or leadership style, but a developmental activity that all managers can engage in over time. This activity is made up of a wide variety of behaviors, all of which relate to the enhancement of job performance and the capabilities of the employee. These behaviors relate to both the tasks at

hand and also to the relationship between the manager and employee, meaning that the one-on-one nature of managerial coaching is critical to its definition. Finally, this set of behaviors is related to important outcomes for employees, meaning measurement plays a critical role in both defining and understanding managerial coaching.

Additionally, the studies presented here reflect this definition through the use of a new, comprehensive measure of managerial coaching. This measure includes a large set of behaviors, reflecting the variety and complexity that make up the construct of managerial coaching. The measure is also closely linked with the definition of managerial coaching in that it does not measure any certain style or type of management but instead includes a set of behaviors that, when taken together, represent the developmental activity of managerial coaching. Because this measure is relatively new, Study One looks at the content of the measure itself. By critically examining which items make up the measure and how they are grouped, the current study contributes to the future theoretical and practical uses of this new way of measuring managerial coaching.

Finally, Study Two examined the relationships between managerial coaching and two important workplace outcomes- occupational self-efficacy and employee engagement. If organizations are going to invest in managerial coaching and leaders are going to be encouraged to engage in managerial coaching with their employees, it is critical that empirical research looks at how managerial coaching can impact employees. Theoretically, an understanding of what managerial coaching is and how it can be used requires an understanding of how it related to other constructs. By examining the relationship among the three variables presented here, Study Two contributes to the literature in the new area of managerial coaching, in the well-established

areas of occupational self-efficacy and employee engagement, and in a broad sense to the empirical understanding of how job performance can be improved.

CHAPTER II: RESEARCH METHOD

General Method

Data Source and Procedure

Both studies were conducted using an archival data set. The data was obtained from employees in organizations that participated in a number of CCL's leadership development programs. In most cases, participants completing the assessment did so as part of a larger organizational initiative that involved managers being rated by their employees, supervisors, and peers and receiving feedback based on that information. Because of this, the benefits to participants reached beyond the direct benefits associated with participating in research and also included more broad organizational benefits in many cases. Some organizations also incorporated the use of the assessment into broader leadership development initiatives, while a number of other organizations used the assessment as a stand-alone measure of managerial coaching effectiveness. However, all of the participants were part of a partnering organization, so even though the exact nature of the organizational benefits varied, all participants were part of organizations that were able to benefit from the research project in some way. Collecting data from actual organizations includes both benefits and disadvantages. For example, the participants were not randomly selected since they were already part of the participating organizations, and their role as participants cannot be separated from their role as employees. However, field research that includes information collected from actual organizations is critical to further understanding about how constructs interact with one another in settings outside of the lab. Furthermore, participants were able to base their answers on actual relationships they had formed in the workplace and situations that they had encountered, allowing them to respond based on actual experiences and not hypothetical scenarios. Data were collected through an

online multi-rater feedback tool in which the measures were completed by a combination of managers, their boss, peers, direct reports, and others.

Participants

The criterion for inclusion in the current analyses was that managers must have been in a managerial position and have at least one direct report. The number of direct reports per manager ranged from 1 to 19 ($M = 2.76$ $SD = 1.53$). Of the sample of 2,003 managers, 52% participants identified themselves as being female, 48% identified themselves as male, and 1% did not respond. Participants ranged in age from 19 to 73 ($M = 45.9$, $SD = 8.93$). For their highest level of education, 48% of participants indicated holding a master's degree or higher, 39% had a bachelor's or associates degree, and 13% responded with "other". Twenty seven percent of participants stated that they were at the executive level of their organization, 22% were at the upper-middle level, and 25% were at the middle level. Human resources was the most highly represented job function, with 35% of participants working in that function. 49% of participants were originally from the United States while 51% were originally from various other countries, and 54% of participants reported currently living in the United States while 46% reported currently living somewhere else. Of the sample of 5,746 direct reports, 40% participants identified themselves as being female, 58% identified themselves as male, and 2% did not respond. Participants ranged in age from 22 to 69 ($M = 48$, $SD = 8.45$). For their highest level of education, 48% of participants indicated holding a master's degree or higher, 32% had a bachelor's or associates degree, and 4% responded with "other". Thirty three percent of participants stated that they were at the executive level of their organization, 25% were at the upper-middle level, and 22% were at the middle level. Human resources was the most highly represented job function, with 28% of participants working in that function. 47% of participants

were originally from the United States while 53% were originally from various other countries, and 51% of participants reported currently living in the United States while 49% reported currently living somewhere else. All survey questionnaires were in English. The generalizability of the sample may be limited by the fact that it is composed of individuals with a higher than average educational level, that are generally in higher levels positions, and have an average age close to 50 years old. The sample is therefore not representative of most individuals working in organizations today, which means that the results of the study might not be replicable if a more representative sample was used.

Study One Measures

The Coaching Effectiveness 360®

The CE 360 was used to measure the frequency that managers engage in specific managerial coaching behaviors (see Appendix A for a complete list of items). For the first study, direct report ratings were used but other forms of the measure (such as self-report ratings by managers) were also used for comparison purposes.

General Coaching Effectiveness Survey

In addition to the CE 360, participants were asked specific questions about their managers' use of coaching as part of day-to-day interactions. This included three questions addressing whether or not the direct report believed they had been coached by their manager, how well the manager had coached others to make positive changes, how well they had coached others to perform to their potential, and their overall effectiveness as a coach (see Appendix B). These items will be used in the assessment of the CE 360 as part of study one, as described in the proposed analyses section.

Perceived Supervisor Support Scale

Participants were also asked to respond to four items regarding supervisor support (see Appendix C). These items were taken from Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002), and recent unpublished research has shown a reliability of .87 for the items (Habig, 2015). These items have been shown to be related to but distinct from other related constructs, such as affective attachment ($r = .64, p < .001$) (Eisenberger et al., 2002). These items will be used in the assessment of the CE 360 as part of study one.

Study Two Measures

The Coaching Effectiveness 360®

The CE 360 was used to assess the use of managerial coaching behaviors by managers as rated by the managers' themselves as well as by their direct reports.

Utrecht Work Engagement Scale (UWES)

Engagement of the direct reports was measured using the Utrecht Work Engagement Scale (UWES) (Hallberg & Schaufeli, 2006). The scale measures three different dimensions: vigor, dedication, and absorption (see Appendix D). Items included: "At my work, I feel bursting with energy" (vigor), "I am enthusiastic about my job" (dedication), and "I am immersed in my work" (absorption). Direct reports responded on a 7-point Likert scale from 1 (*never*) to 7 (*always*). The short version of the scale was used (UWES-9). This version is a nine-item measure that has been demonstrated to be a valid and reliable measure of engagement in both global and U.S. samples, through factor analysis and evidence that the shorter UWES scale shares over 80% of its variance with the original longer scale (Hallberg & Schaufeli, 2006; Schaufeli, Bakker, & Salanove, 2006). Discriminant validity was established through intercorrelations, confirmatory factor analyses, and correlations with health complaints, job and

personality factors, and turnover intention. Based on a sample that included data from 10 different countries, Schaufeli, Bakker, and Salanova (2006) reported that Cronbach's alpha fluctuated between .85 and .92 (median = .92), suggesting internal consistency reliability.

Short Version of the Occupational Self-Efficacy Scale

To assess occupational self-efficacy, the Short Form of the Task-Specific Occupational Self-Efficacy Scale (TSOSS) was used (Osipow, Temple, & Rooney, 1993). Direct reports responded on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The scale has six items, including "I remain calm when facing difficulties in my job because I can rely on my abilities" and "Whatever comes my way in my job, I can usually handle it" (see Appendix E). Evidence of validity and reliability in the initial study included intercorrelations and test-retest reliability above .90, and factor analyses that supported the four-factor model. Based on a sample that included data from five different European countries, Rigotti et al. (2008) found that Cronbach's alpha fluctuated between .85 and .90 (median = .86), suggesting internal consistency reliability.

CHAPTER III: RESULTS

Study One

The purpose of Study One was to explore the factor structure of the CE 360 in a large sample of managers, with respect to both their self-report ratings and ratings of their direct reports. This chapter describes the results of the statistical analyses performed. This chapter begins with a description of the data cleaning and imputation for missing data. Next, the statistical approach for the exploratory and confirmatory factor analyses is discussed. The study hypotheses are reviewed, followed by the results of the analysis to test those hypotheses. A brief summary concludes this chapter.

Data Cleaning

Raw data were collected from a total of 2,003 managers who provided self-ratings in the CE 360, as well as the raters they invited to fill out the measure (i.e., boss, peer, direct report, other) from a population of employees from organizations that participated in a number of CCL's leadership development programs. Managers were told to invite as many raters as they see fit across the different rater groups. To be a part of this sample, participants must have been in a managerial position and have at least one direct report. Of the original sample, 1,905 reported that they were the "Boss" of the manager of interest, 6,657 reported that they were a "Peer", and an additional 3,171 indicated that their relationship to the target was "Other", so these cases were deleted due to ambiguity in terms of the inclusion criteria. The resulting sample size included a total of 7,749 participants, of which 5,746 self-reported that they were a "Direct Report" of the 2,003 managers of interest.

Next, data were screened for missing and implausible values, or responses of "don't know". No instances of implausible values or "don't know" responses were identified. In terms

of missing data, 399 cases were identified with missing data on a complete scale. This was considered nonrandom missing data, and these cases were deleted from the dataset. The resulting sample size was 7,350 participants, of which 1,950 were self-reports of the managers of interest, and 5,400 were direct reports to the managers of interest.

Demographic characteristics were compared across participants retained for further analyses versus those not retained. There was not a significant difference for gender across these two groups, $\chi^2(1) = 2.31, p = .13$. There was also no significant difference across groups in terms of self-reported race or ethnicity, $\chi^2(6) = 4.20, p = .65$. There was a significant difference across groups in terms of age, $t(7444) = 21.32, p = .02$. Participants who were not retained ($M = 46.79, SD = 8.42$) reported an age that was approximately 1 year older than participants who were retained ($M = 45.72, SD = 8.65$), although the magnitude of this effect was less than small according to Cohen's standards (Cohen, 1992).

Within the retained sample of 7,350, there were 1.36% of data points missing among self-reports of managers of interest, and 3.73% missing data points among the direct reports. This amount of missing data is considered small, and there was no evidence to suggest that it was not missing at random, following the aforementioned deletion of non-random missing cases (Enders, 2001a; Enders 2001b; Enders, 2006; Enders, 2010).

Statistical Approach

Factor analyses. To assess the factor structure of the CE 360, an Exploratory Factor Analysis (EFA) and a Confirmatory Factor Analysis (CFA) were performed. These two methods used in conjunction offer a complementary approach for determining factor elements; EFA provides insight into the psychometric properties of a scale without imposing an assumed structure, and CFA allows researchers to test the hypothesis that the relationship between

observed variables and underlying latent constructs exist. To provide separate samples for analysis, the 5,400 direct reports were randomly split (Kalloway, 1998). The EFA was first performed without accounting for the nested structure of the data to provide initial insight into the factor dimensions. Because this violates the assumption of independence of observations, the analysis was performed again using a multilevel approach to account for the hierarchical structure of the data. The CFA was used to compare the factor structure identified in the EFA to factor structures found in previous research (Cospito, Kolb, & Musterteiger, 2017), as well as the theoretical structure proposed by the CE 360. A CFA was also performed on the self-ratings to determine whether the factor structure was consistent across rating type.

Reliability analyses. To assess the internal consistencies of the nine competencies measured by the CE 360, Cronbach's Alpha reliability testing was conducted on the sample of direct reports. This statistical approach differs from the factor analyses by determining the extent to which the items within a construct measure the same thing (i.e., inter-item correlations), rather than portioning variance into components.

Correlation analyses. The correlation between the CE 360 direct reports and general assessments of coaching effectiveness and perceived supervisor support were assessed using a Within-and-Between-Analysis (WABA) approach (Dansereau, Alutto & Yammarino, 1984). The analysis decomposes a raw correlation from a nested design into the following components: 1) eta-between value for X, 2) eta-between value for Y, 3) the group-size weighted group-mean correlation, (4) the within-eta value for X, 5) the within-eta value for Y, and 6) the within-group correlation between X and Y. The last component represents the correlation between X and Y after each variable has been group-mean centered.

Study One Hypothesis Testing

Hypothesis 1a stated that the Coaching Effectiveness 360® items will fit best into a five-correlated-dimensions model.

Exploratory Factor Analysis

To assess the hypothesis that the factor structure of the CE 360 in the present sample would best fit a five-factor model, Muthén's processes for exploratory factor analysis with nested data were consulted (Muthén & Muthén, 1994, 1996). Accordingly, the first step involved an exploratory factor analysis at the item level, without accounting for the nested structure of the data. In this analysis, all observations are considered independent of each other. Although this assumption is violated in the present study due to the nested structure of data, it offers an initial glimpse of underlying factor structures within the data.

This first analysis involved a series of exploratory factor analyses using data from direct reports of the managers of interest. Given the large dataset, the sample of 5,400 direct reports were divided randomly into two subsamples, consisting of 2,700 direct reports in each sample. In one of these samples, an exploratory factor analysis was conducted in SPSS version 24.0. The method for conducting the analysis was based on best practices as articulated by Costello and Osborne (2005). Specifically, the extraction method was principal axis factoring, and an oblique rotation was specified. This analysis yielded the scree plot that is displayed in Figure 2.

As can be seen in this Figure, there is strong evidence of a single factor. This factor explained 58.34% of the observed variance (Eigenvalue = 30.34). Consistent with recommendations of Costello and Osborne (2005), multiple subsequent analyses were conducted to fix the number of extracted factors at 1 through 3, to explore all possibilities of solutions that might yield clean factor loadings. This iterative process revealed that the cleanest solution was

present with a single, unified factor. A clean solution was defined as one with large factor loadings for each item on one factor (greater than .32; Tabachnick & Fidell, 2013), and small factor loadings on additional factors. Factor loadings of this solution are presented in Table 8. As can be seen in this Table, the lowest factor loading was .58. It should be noted that since there was only 1 factor in this structure, there is no formal rotation method for computing factor loadings. Cronbach's alpha of this unified dimension was .99.

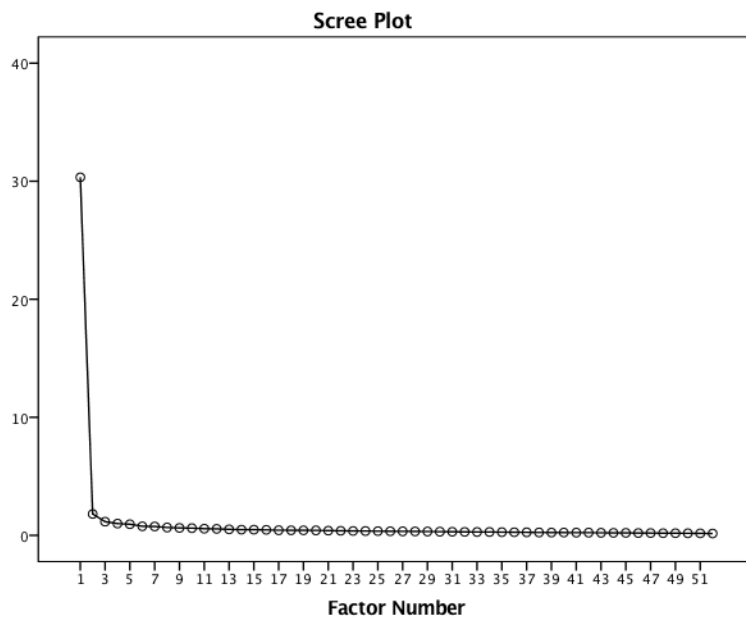


Figure 2. Scree plot of the initial Exploratory Factor Analysis. This figure displays the results of the analysis in a visual format.

As noted above, traditional factor analyses assume independence of observations. However, the nested nature of the dataset, in which direct reports are nested within managers of interest, violates that assumption. It is reasonable to assume that direct reports within a given manager of interest would be more similar because of this shared commonality. This within-group homogeneity (or between-group variability) can be modeled at the group level, while taking into account the individual level correlation structure. A multilevel exploratory factor analysis was next repeated in Mplus version 7 (Muthén & Muthén, 2015), in which direct report

was nested within the manager of interest. In this analysis, the same split sample was utilized.

As with the previous analysis, factor structures with 1 to 3 factors were forced and then compared.

Table 8

Factor Loadings of CE 360 Items within a Single Factor Solution

Item Number	Factor Loading	Item Number	Factor Loading
1	0.78	27	0.82
2	0.61	28	0.70
3	0.75	29	0.77
4	0.78	30	0.86
5	0.78	31	0.79
6	0.79	32	0.81
7	0.71	33	0.73
8	0.68	34	0.69
9	0.82	35	0.82
10	0.70	36	0.81
11	0.58	37	0.74
12	0.60	38	0.80
13	0.83	39	0.83
14	0.68	40	0.75
15	0.80	41	0.76
16	0.74	42	0.72
17	0.73	43	0.69
18	0.85	44	0.84
19	0.75	45	0.76
20	0.72	46	0.82
21	0.82	47	0.78
22	0.85	48	0.75
23	0.77	49	0.61
24	0.74	50	0.71
25	0.75	51	0.77
26	0.84	52	0.76

Note. See Appendix A for item name and description.

The factor structures are assessed by calculating the two covariance structures (one structure being within variance and one between variance) and partialling out the between-group variability. Once again, there was most support for the one-factor structure. The factor loadings

for the within variance component, partialling out the between variance, are displayed in Table 9. As with the previous analysis, all factor loadings were quite high, with the lowest being .56.

It is noteworthy that the initial analysis that did not account for the nested structure was very similar to the analysis that did account for the nested structure. In the latter analysis, between variance at the level of the manager was partialled out, and the results were nearly identical to when the between variance was not partialled out. This suggests that the items can be grouped similarly both within and across managers.

Table 9

Factor Loadings for Within-Group Analysis

Item Number	Factor Loading	Item Number	Factor Loading
1	0.77	27	0.81
2	0.67	28	0.68
3	0.75	29	0.75
4	0.77	30	0.83
5	0.77	31	0.78
6	0.79	32	0.79
7	0.73	33	0.74
8	0.65	34	0.68
9	0.81	35	0.80
10	0.70	36	0.80
11	0.61	37	0.75
12	0.55	38	0.81
13	0.82	39	0.82
14	0.68	40	0.72
15	0.79	41	0.73
16	0.71	42	0.70
17	0.74	43	0.68
18	0.85	44	0.82
19	0.74	45	0.75
20	0.74	46	0.81
21	0.82	47	0.76
22	0.84	48	0.75
23	0.77	49	0.58
24	0.74	50	0.71
25	0.75	51	0.76
26	0.83	52	0.74

Note. See Appendix A for item name and description.

Confirmatory Factory Analysis

In the previous analysis, there was very strong evidence for a single factor to represent variance across the 52 items of the CE 360. This evidence included a very definitive elbow in the scree plot, uniformly strong factor loadings within this single factor, and relatively weaker patterns of loadings (i.e., not as clean) in factor structures with 2 or 3 factors. Further, Cronbach's alpha was exceptionally high (.99) for this single factor.

However, in previous research, other factor structures were recommended, namely a 3-factor solution based on previous empirical research (Cospito, Kolb, & Musterteiger, 2017), and a 5-factor solution that is based on the theory underlying items in the CE 360. Therefore, the next step of the analysis with the second random sample of direct reports of managers of interest involved conducting a confirmatory factor analysis for these different factor structures. Given previous structures that were not supported in the exploratory analysis presented above, they were tested explicitly in the cross-validation sample. As with the exploratory sample, the sample size was $n = 2700$ direct reports.

The fit indices of the 3 models that were tested are displayed in Table 10. Consistent with recommendations in the literature (Hu & Bentler, 1999; Kline, 2015), multiple fit indices are displayed, including the Chi-Square statistics, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR). A non-significant Chi-Square value, values greater than .95 for the CFI, and values less than .05 for the SRMR and RMSEA indicate a good fit, and values between .05 and .08 for the RMSEA indicate a reasonable fit (Hu & Bentler 1999). Note that Chi-Square is often inflated in very large sample sizes (Kline, 2015).

As can be seen in Table 10, there results were mixed with respect to model fit. All

Table 10

Fit Indices of Confirmatory Factor Analyses in Validation Sample

Model	χ^2	RMSEA	CFI	SRMR
Single Factor Solution	11451.94*	0.055 (0.053 to 0.055)	0.87	0.04
Three Factor Solution	11121.08*	0.054 (0.053 to 0.054)	0.87	0.15
Five Factor Solution	9731.35*	0.050 (0.049 to 0.051)	0.89	0.04

Note: Used direct report data ($n = 2700$).

demonstrated poor fit based on the CFI. Although all solutions demonstrated reasonable fit based on the SRMR, the single and five factor solutions had the best fit (i.e., SRMR, values below .05). It is important to note that in the five-factor solution, correlations among factors were very strong (all above .76). Such strong correlations can indicate lack of uniqueness between factors (Markus & Borsboom, 2013), as factors correlating above .71 share more than half of observed variance. Considering all of this information, the results suggest that the single factor solution offered the best fit with observed data.

Hypothesis 1b stated that reliability levels for direct report ratings of all nine competencies will be above the acceptability threshold of .70 for Cronbach's alphas.

To test the hypothesis that the reliability levels for direct reports would be above the threshold of acceptability (Hypothesis 1b), Cronbach's alphas, or measures of internal consistency, were assessed for the a priori hypothesized factors within the assessment. As can be seen in Table 11, the internal consistency is greater than .70 for all nine competencies, and patterns of Cronbach's alpha appear to be very similar across the samples.

Hypothesis 1c stated that direct report ratings in *The Coaching Effectiveness 360*[®] will significantly, positively correlate with general ratings of coaching effectiveness made by direct reports about each manager.

Hypothesis 1d stated that direct report ratings of each item in *The Coaching Effectiveness 360*[®] will significantly, positively correlate with managers' ratings of their own

general coaching effectiveness.

Table 11

Reliabilities (Cronbach's Alpha) for each Competency in The Coaching Effectiveness 360®

Component	Competency	Previous Research		Present Research	
		Self	Direct Reports	Self	Direct Reports
Relationship	Establishes Boundaries	.75	.87	.72	.86
	Builds Trust	.77	.93	.75	.90
Assessment	Creates Awareness through Feedback	.83	.91	.84	.91
	Encourages Self-Discovery	.76	.89	.80	.89
Support	Listens for Understanding	.75	.93	.79	.87
	Sustains Momentum	.77	.90	.82	.89
Challenge	Challenges Thinking and Assumptions	.75	.91	.80	.89
	Promotes Practice	.76	.88	.79	.89
Results	Sets Goals	.81	.94	.83	.91

Note: Previous research refers to initial CCL validation study described in page 44; self ($n = 245$) and direct reports ($n = 686$). Present research ($n = 1,950$) and ($n = 2700$).

Hypothesis 1e stated that direct report ratings of each item in *The Coaching Effectiveness 360®* will significantly, positively correlate with direct report ratings of supervisor support.

To test hypotheses 1c – 1e, correlation analyses were conducted on the sample of direct reports between the CE 360 and general ratings of coaching effectiveness and perceived supervisor support. A covariance theorem decomposition method was used, in which the raw correlation between two variables is partitioned into within and between group variance. The within-group correlation between variables is then estimated. This method is appropriate when data is hierarchical in structure (Dansereau, Alutto, & Yammarino, 1984).

Consistent with Hypothesis 1c, there was a significant positive correlation between the CE 360 and ratings of general coaching effectiveness. Hypothesis 1d was also supported. There was a small, but statistically significant positive correlation between direct report's CE 360

scores and managers' ratings of their own coaching effectiveness. Hypothesis 1e was also supported: higher scores on the CE 360 were significantly positively associated with perceived supervisor support. The results for the raw and group-mean weighted correlation coefficients are presented in Table 12.

Table 12

Correlation Coefficients between CE 360, General Coaching Effectiveness, and Perceived Supervisor Support

	<i>N</i>	Number of Groups	Raw Correlation	Within-Group Correlation
Direct Reports: CE 360 and General Coaching Effectiveness	2,549	1,214	.77*	0.71*
Direct Report CE 360 and Manager of Interest General Coaching Effectiveness	2,213	601	0.17*	0.12*
Direct Reports: CE 360 and Perceived Supervisor Support	2,561	1,215	.35**	.29**

Note: Sample size and number of groups varies due to missing data. For Hypotheses 1c and 1e, the number of groups reflects the number of managers of interest. For Hypothesis 1d, the number of groups reflects the number of organizations.

* $p < .05$; ** $p < .001$

Hypothesis 1f stated that the factor structure of The Coaching Effectiveness 360® will be consistent across rating groups (i.e., manager self-ratings and direct report ratings).

To examine whether this factor structure was consistent across self-ratings by managers, the next analysis examined the confirmatory factor analysis models in the manager of interest sample. In this analysis, the nested nature of the data was modeled at the organization level (i.e., manager within organization). The fit indices of the confirmatory factor analyses of each model are presented in Table 13. As with the cross validation sample in Table 3, the fit indices in Table 6 indicate a mixed degree of fit between observed self-report data and the models that were tested. The RMSEA index indicates a reasonable degree of fit for all models. There are minor

improvements in the RMSEA as the number of factors increase. However, the SRMR approaches a good fit for only the single and five factor solutions. The CFI does not suggest good fit for any of the models. That said, Cronbach's alpha for the unidimensional structure is exceptionally high (.96). Standardized factor loadings were also acceptably high, with the lowest factor loading being 0.35.

Table 13

Fit Indices of Confirmatory Factor Analyses in Validation Sample

Model	χ^2	RMSEA	CFI	SRMR
Single Factor Solution	9,825.85*	0.06	0.77	0.06
Three Factor Solution	9,248.95*	0.05	0.79	0.11
Five Factor Solution	8,479.90*	0.05	0.81	0.05

Note. Manager of interest self-ratings ($n = 1,950$)

Summary

In this chapter, the results of a variety of analyses were conducted to examine the factor structure of the CE 360 in a large sample of both managers and their direct reports. Due to the nested structure of the dataset, analyses were performed that partial out between group variance. In contrast to Hypothesis 1a, exploratory analyses indicated that a unidimensional structure, and not a five-factor model, was most appropriate. Although confirmatory analyses were mixed, the results also indicate a degree of fit between the unidimensional model and observed data, further suggesting that Hypothesis 1a was not supported. Supporting Hypothesis 1f, however, the factor structure was consistent across direct reports and self-reports. Factor loadings were high, and the estimate of internal consistency was above the threshold of acceptability (Hypothesis 1b). Although there was some mixed evidence of model fit in confirmatory models, this could potentially be increased by modeling covariation among items within the unified factor structure. While this approach could potentially increase model fit, it would not influence how the measure is used in practice, in which a total sum score of ratings across all 52 items is recommended.

Study Two

The purpose of Study Two was to test a hypothesized mediation model regarding associations among the CE 360, employee occupational self-efficacy, and employee engagement. This chapter presents results of various analyses that test the proposed meditational model, within the multilevel framework of the dataset.

Dataset

The same archival dataset used for Study One was utilized for Study Two. The model was also tested with self-reports of managers of interest and their direct reports, nested within organization.

Intraclass Correlation Coefficient and rWG Statistics

Due to the nested nature of the data, intraclass correlation coefficients (ICC) were calculated. ICC1 was used to determine the amount of individual level variance that can be attributed to group membership and ICC2 was used to determine the reliability of the group means. For the self-ratings of managers of interest, the ICCs were calculated nested within organization; for direct reports, the ICCs were calculated nested within boss. The results of this analysis show that the ICC values are generally low (ranging from .030 to .17 for self-ratings and .09 to .40 for direct reports), indicating that only a small portion of variance can be accounted for by group membership. Still, as discussed by Musca et al. (2011), even a small amount of shared variance within groups can have dramatic implications for increasing Type 1 error rate, and as such, a multilevel modeling approach is required.

The rWG statistic, which measures the degree of within-rater agreement, was also examined. These values for both self-ratings and direct reports were high (i.e., close to 1),

indicating a high degree of agreement between raters. The results of these measures for both self and direct reports are presented in Table 14.

Table 14

ICC1, ICC2 and rWG Statistic for Self and Direct Reports of CE 360, Occupational Self-Efficacy, and Employee Engagement

Scale	ICC1	ICC2	rWG
Self			
CE 360	.07	.12	.81
Occupational Self-Efficacy	.03	.04	.78
Employee Engagement	.11	.17	.84
Direct Reports			
CE 360	.24	.40	.80
Occupational Self-Efficacy	.09	.35	.86
Employee Engagement	.13	.35	.72

Note. Self ($n = 1,774$) and direct reports ($n = 5,230$).

Statistical Approach

To address the mediation hypothesis, while accounting for the hierarchical data structure, a multilevel structural equation modeling approach was used. Mediation analyses specify the causal pattern of relationships between variables. Specifically, an independent variable is posited to exert influence on a dependent variable through the indirect influence of a third, explanatory variable. Given the nested structure of the data, multilevel modeling (MLM) was used. This analysis allows researchers to model individual differences in the first-level of analysis and differences based on grouping by manager in the second-level of analysis. The MLM approach provides an inference of the indirect (mediation) effect of the between-group variability within the clustering unit.

As a precursor to this analysis, the ICC and rWG statistics were calculated. These statistics provide an index of the reliability (ICC) and agreement (rWG) of the measures and inform the appropriateness of using multilevel methods. A structural equation approach was

then used. All models were compared to the null model to determine how much variability is accounted for at both the between-and within-group levels.

Hypothesis Testing

Hypothesis 2. Occupational self-efficacy partially mediates the relationship between managerial coaching behaviors and employee engagement such that the occurrence of managerial coaching behaviors as reported by employees will positively, significantly correlate with employee engagement, with the relationship being explained by a positive, significant relationship with employee occupational self-efficacy.

Initial attempts were made to test the model with a series of full structural equation models, in which each construct was represented as a latent variable, comprised of 52 indicator variables for CE 360, 6 items for the self-efficacy scale, and 9 variables for the engagement scale. However, these models would not converge successfully, suggesting that the data do not fit the latent variable model well. Therefore, a path analytic framework was adopted, in which total scores were computed for each of the study variables. Path analysis is a special case of SEM in which only observed variables are used. Because total scores were computed, the full-information maximum likelihood method for handling data could not be used (as there were many cases deemed to be missing variables on all three total scores, or in this case, all variables in the model). Each indicator variable was imputed using a hot-deck imputation procedure (Myers, 2011). Hot-deck imputation has been found to perform better than many other common methods of handling missing data, including pairwise deletion, listwise deletion, mean imputation, and regression-based procedures, particularly when the amount of missing data is small (less than 5%; e.g., Myers, 2011). In the context of survey-based research, better performance refers to a method that yields standard errors that are less biased, or that are more

accurate representations of true population parameters. After hot deck imputation at the individual variable level, total scores were computed, and the model was run with the three variables.

The analysis included 1687 clusters, with an average cluster size of 2.33. The number of free parameters in the model was 10. The within-level model results showed that the estimate for occupational self-efficacy on CE 360 scores was .019 ($SE = .001, p < .001$). The estimate for employee engagement on occupational self-efficacy was 1.10 ($SE = .050, p < .001$). However, the results for the hypothesized model did not offer good fit to observed data, $\chi^2(2) = 136.33$, CFI = .88, RMSEA = .13, SRMR = .09. In addition, modification indices did not provide any indication of what might be done to better fit the model; however, due to the data-driven nature of modification indices, it is typically poor practice to use them for model improvement unless there is a theoretical rationale for their implementation (Widaman, 2012). Because the model demonstrated poor fit, there was no statistical support for a mediating effect of occupational self-efficacy on a relationship between managerial coaching and employee engagement. Further, the lack of fit suggests that the present data does not support a relationship between managerial coaching and employee engagement, and this renders a mediation analysis meaningless. Based on the power of the analysis, which was sufficient to detect medium and even small effect sizes, it is unlikely that such an effect exists within this population. As such, the null hypothesis for Study Two could not be rejected.

Post Hoc Analyses

To assess whether direct report ratings on the CE 360 of managers of interest differed by demographic factors, a linear mixed model regression analysis was conducted with the demographic factors (gender, age, years of coaching, number of people coached, and

organizational level) as predictors, nested within organization. Gender was a significant predictor of CE 360 scores ($B = 6.59, p < .001$), indicating that male managers scored higher on the measure than female managers. Age was not a significant predictor of CE 360 scores ($b = .043, p = .137$), nor was length of coaching ($B = 1.39, p = .064$). The number of people coached was statistically significant ($B = 5.93, p < .001$); as the number of people coached by the manager increased, CE 360 scores increased. Finally, organizational level was also a significant predictor ($B = 2.57, p = .002$), indicating that managers higher on the organizational level scored higher on the CE 360. The full results of the regression analyses are presented in Table 15.

Table 15

Multilevel Linear Regression Analysis for Demographic Factors Predicting CE 360 Scores, Nested within Organization

Parameter	B	SE	df	t	95% LLCI	95% ULCI
Intercept	244.91	3.61	1,036.49	67.79*	237.82	252.00
Gender (ref: Female)	6.59	1.88	1,068.74	3.51*	2.91	10.28
Age	0.04	0.03	1,110.71	1.49	-0.01	0.10
Length of Coaching	1.39	0.75	1,123.29	1.86	-0.08	2.86
Number Coached	5.93	0.79	1,123.37	7.48*	4.37	7.49
Organizational Level	2.57	0.81	1,042.59	3.18*	0.98	4.15

Note: Age and organizational level were centered at their means.

* $p < .01$

Further analyses were conducted among the sample of direct reports to assess whether type of coaching (formal, informal, none), gender of manager, and level of manager predicted CE 360 scores. Because type of coaching is a three-level variable, two dummy-coded variables

were created and comparisons were made with formal coaching. A mixed linear regression model was conducted for direct report nested within managers of interest.

Gender of managers was not a significant predictor of direct reports CE 360 scores. Type of coaching was a significant predictor. Those who received formal coaching scored significantly higher on the CE 360, compared to those who received informal coaching ($B = 11.07, p < .001$). Those who received formal coaching also scored higher than those who received no coaching ($B = 41.94, p < .001$). Level of the manager was also a predictor of CE 360 scores. As manager level increased, direct reports' CE 360 scores also increased ($B = 1.92, p = .046$). These results are presented in Table 16.

Table 16

Multilevel Linear Regression Analysis for Factors Predicting CE 360 Scores, Nested within Managers of Interest

Parameter	B	SE	df	t	95% LLCI	95% ULCI
Intercept	236.20	5.49	1,951.53	43.06	225.44	246.96
Gender (ref: Female)	1.97	2.42	1,017.41	-0.82	-2.78	6.72
Type of Coaching (formal vs. informal)	11.07	2.05	2,246.87	5.40**	7.05	15.10
Type of Coaching (formal vs. none)	41.94	3.88	2,237.59	10.80**	34.32	49.56
Organizational Level	1.92	0.96	1,025.63	2.00*	0.04	3.81

Note: For type of coaching, formal coaching was coded 1 and the comparison group coded as 0.
* $p < .05$, ** $p < .01$

Summary

The primary hypothesis of Study Two was tested in several ways. First, a full structural equation model was attempted. The model did not converge, indicating that the tested model was

not reasonably consistent with the data. Thus, the hypothesis was not supported. A primary advantage of SEM is that it allows for testing of theoretical proposition of a model in non-experimental data. However, SEM also has the limitation that theoretical parameter estimates are often not known or specified; thus, a poor fitting model could be the result of underspecified theoretical assumptions. To address this limitation, a path analytic approach was used. Path analysis is a special case of SEM in which only observed variables are used. Again, the hypothesis was not supported; the model demonstrated poor fit. Taken together, these findings suggest that although the variables may be related to each other in the hypothesized manner, the theoretical model is inadequate for determining a causal, explanatory framework.

CHAPTER IV: DISCUSSION

The current studies focused on two overarching goals: learning more about a relatively new measure of managerial coaching, the Coaching Effectiveness 360[®] (CE 360), and developing a better empirical understanding of the relationship between managerial coaching and other workplace constructs, including employee engagement and occupational self-efficacy. Results of the first study suggest that the CE 360 measures a single underlying factor, as opposed to a number of different factors as it was hypothesized based on previous research on managerial coaching. In the second study, the causal mediation relationship between managerial coaching, employee engagement, and occupational self-efficacy was not supported. However, results suggested several potentially important relationships between managerial coaching and other variables. In general, while support for the hypotheses varied, both studies provided important insights to both the measurement of managerial coaching and its relationship to other constructs in the workplace. The following chapter discusses these results in more detail, along with the practical implications suggested by those results. Limitations of the current studies are also discussed. The chapter ends with potential future research in the area of managerial coaching.

Key Findings

Supported Hypotheses and Implications

Five hypotheses were supported by the results of study one and study two. First, the reliability levels of across all nine theoretical competencies in the CE 360 were above the acceptable threshold of .70 for Cronbach's alphas. Although this finding provides support for the reliability of the measure, there is no evidence that the CE 360 is measuring managerial coaching and not a related workplace construct. Additional evidence is warranted to establish construct validity. Second, direct report ratings on the CE 360 were significantly, positively

correlated with direct report ratings of coaching effectiveness. Since the construct of managerial coaching would be expected to relate to general coaching effectiveness, this provides evidence for convergent validity. Additionally, direct report ratings of managerial coaching were significantly, positively correlated with manager's ratings of their own coaching effectiveness. Along with general coaching effectiveness, managerial coaching was also significantly, positively related with perceived supervisor support. Finally, the factor structure of the CE 360 was consistent across both direct-report ratings and manager's self-ratings.

Taken together, these results address the lack of research using the CE 360 as a measure of managerial coaching. Previous studies using the current measure are limited, and those that have been conducted have had much smaller sample sizes (Cospito, Kolb, & Musterteiger, 2017). When tested with a larger sample, the current results suggest that the CE 360 is measuring a unidimensional construct. It is consistent with both direct report and self-ratings of coaching effectiveness. In addition, previous research has shown that the factor structures of measures of managerial effectiveness are consistent across rating groups (Facteau & Craig, 2001; Scullen et al., 2003). The current results are in line with these findings, with a consistent factor structure emerging from both direct report and self-ratings. The unidimensionality of the measure did not match the hypothesized factor structure. While a unidimensional measure of managerial coaching is consistent with previous findings, as a commonly used measure of managerial coaching based on workplace literature (Ellinger et al., 2003) is also unidimensional, it is not consistent with other measures that have been found to contain multiple dimensions (McLean et al., 2005; Park, 2007). The results do provide support for convergent validity of the measure, as ratings in the CE 360 were found to correlate with both general coaching effectiveness and perceived supervisor support as managerial coaching would theoretically be

expected to do. In summary, although five of the hypotheses were supported, the unidimensionality of the CE 360 limited its empirical usefulness.

Practical Implications for the Workplace

Although some measures are focused on providing information in a research context, measures of managerial coaching have strong practical implications in addition to theoretical implications. In recent years, businesses have begun taking notice of the construct of managerial coaching and even incorporating it into their leadership strategy in some cases (Beattie et al., 2014; Joo, Sushko, & McLean, 2012). This interest from organizations means that practical, useable measures are important in order to allow for successful gathering of information regarding managerial coaching in organizations. In fact, many critiques of previous measures of managerial coaching stem from a lack of comprehensive, applicable items that directly relate to the workplace (Hamlin, Ellinger, & Beattie, 2006). The framework that the CE 360 was based on was practical in nature in order to address some of these critiques by making managerial coaching easy to understand and apply in organizations (Ting & Riddle, 2006). Additionally, the items included in the CE 360 align with research that shows that specific, behavioral frequency items allow for more accurate responding in organizations (Hansbrough, Lord, & Schyns, 2015). However, the current results suggest that the CE 360 could be improved by reducing the number of items to make the measure shorter and more practical in organizational settings, as well as to determine whether a revised measure maintains the same factor structure or if it displays multidimensionality.

Unsupported Hypotheses and Implications

The results of study one and study two did not support two hypotheses. First, the CE 360 items did not fit best into a five-correlated-dimensions model. Instead, multiple analyses across

multiple rater groups suggested that the measure fits best into a single-factor solution. Second, path analysis did not support a causal mediation relationship between managerial coaching, employee engagement, and occupational self-efficacy. While these variables may be related, the hypothesized model was not supported in this case. In both of these cases, although the hypotheses were not supported important information still emerged regarding the measure itself and the relationship between managerial coaching and other variables.

There are several potential implications of the single-factor structure of the measure. Although the CE 360 was based on a model that allowed for nine competencies within five separate dimensions, these results suggest that those competencies and dimensions reflect practical categories that collectively relate to a single underlying construct; however, there is no definite evidence that the unidimensional construct measured by the CE 360 is that of managerial coaching. The model itself was originally created from a practical perspective, so these results could suggest that those practical uses do not extend into the theoretical realm (Ting & Riddle, 2006). Previous measures of managerial coaching have suggested both a single underlying construct and several dimensions. For example, both McLean et al. (2005) and Park (2007) found support for multiple dimensions within their measures of managerial coaching (four and five respectively). However, both of those measures were critiqued because they were based not on the workplace but instead on sports coaching literature (Hamlin et al., 2004). Ellinger et al. (2003) based their measure of managerial coaching on workplace literature specifically and found only one dimension, although their measure was critiqued for being narrow in scope with only 10 items in the measure. It is possible based on the current results that in a workplace context managerial coaching is a unidimensional construct even when measured with a more

comprehensive set of items. It is also possible that the unidimensional construct measured by the CE 360, extend beyond the managerial coaching construct (e.g., general management).

The second study was meant to test a set of variables that had been tested individually but not together in one comprehensive model. There are several possible reasons that the model was not supported by the current results. First, the hypothesis was tested using a new measure of managerial coaching, as discussed above. It is possible that as measures of managerial coaching become more specific to the workplace and further develop theoretically, previously supported relationships will be called into question and new relationships will be discovered. Ellinger et al. (2003) created one of the more common previous measures of managerial coaching that was specifically created based on workplace literature and stated that three of the main goals of managerial coaching were to increase employee performance, satisfaction, and engagement. In their study using their measure, they successfully linked managerial coaching to performance and satisfaction but did not include employee engagement in their study. Perhaps the current measure of managerial coaching would show different results if it were linked with performance and satisfaction as opposed to engagement. Second, the low ICC values indicate that only a small proportion of the variance in CE 360 ratings is due to group membership. In the context of the study this is not a positive finding, as it suggests that the use of coaching behaviors by individual managers is not predictive of direct report ratings of employee engagement and occupational self-efficacy. In other words, a managers' ability to influence direct reports engagement and self-efficacy levels by using managerial coaching behaviors is limited. This provides a possible explanation for why the proposed theoretical model was not supported, as it based in the premise that direct reports that work under a manager that frequently uses managerial coaching behaviors will report higher levels of engagement and self-efficacy, and the

low ICC values indicate that the variance of direct report levels of engagement and self-efficacy are not largely dependent on each manager.

Additionally, it is possible that some of the problems with establishing relationships with employee engagement stem from difficulty measuring and defining employee engagement itself. Previous research has also struggled to establish a mediation relationship between managerial coaching and employee engagement with other mediators, including LMX (Kuzmycz, 2011). Several studies have outlined the complexity of employee engagement as a construct (Macey & Schneider, 2008; Maslach, Schaufeli, & Leiter, 2001; Rich, Lepine, & Crawford, 2010). These complexities include the fact that there is debate regarding within-person and between-person variability on employee engagement and how various constructs relate to each (Macey & Schneider, 2008). There are also many variables that have been shown to influence employee engagement that relate not only to management, but also to general work environment, specific work tasks, and individual differences (Maslach, Schaufeli, & Leiter, 2001). This suggests that the results may stem from the measurement and complexity of employee engagement itself as opposed to managerial coaching. It is also possible that the variables in the current study relate to one another in a way that was not hypothesized here.

Practical Implications for the Workplace

In order for managerial coaching to be used effectively in the workplace, it is important to understand how it can be measured and applied. The current results suggest that the CE 360 can be used to reliably measure managerial coaching, and that a final sum score across all items should be calculated in order to assess managerial coaching. The hypothesized dimensions of the measure are not distinctive from a measurement perspective, but can still be used to practically explain the types of behaviors managerial coaching consists of and potential areas of

improvement if managers are struggling. These practical uses of the measure can still reflect the original intentions set out in Ting and Riddle (2006) to create an easy to understand and apply measure of managerial coaching. As for the practical implications of the hypothesized model, it is important to set realistic expectations in organizations for causal outcomes when using managerial coaching. These results suggest several important correlations that may not be causal in nature. For example, managerial coaching does appear to be related to general coaching effectiveness and perceived supervisor support. Additional research is still needed to more fully understand these relationships, but the current study still suggests that managerial coaching could be a powerful and effective tool in organizations, once it is more thoroughly understood and differentiated from other management and leadership theories.

Further Findings and Implications

In addition to the hypotheses tested here, other potential relationships were examined during the analysis of the data. These additional analyses yielded several interesting results. First, gender was found to be a significant predictor of managers' self-ratings of managerial coaching scores. Male managers rated themselves significantly higher on managerial coaching than female managers. Second, managers with higher numbers of direct reports rated themselves more positively on the CE 360. This relationship was in contrast to that of age and length of coaching (i.e., how long did/has coaching relationship lasted) - neither significantly predicted CE 360 scores. Third, managers who were at a higher level in the organization were significantly more likely to both, rate themselves higher and receive higher ratings from their direct reports in the managerial coaching measure than those at lower levels in organizations. Each of these results has potential implications for the current study and also implications for the use and interpretation of the CE 360 moving forward.

There are several possibilities to explain the gender differences shown here. First, it is possible that men are more likely to engage in managerial coaching than women. Second, these results could reflect self-bias in the ratings. Namely, men could rate themselves more highly on managerial coaching than women regardless of actual use of managerial coaching behaviors in the workplace. This explanation would be in line with research showing that female leaders and managers tend to be rate themselves lower than their male counterparts regardless of actual performance (Heilman, 2012; Lyness & Heilman, 2006; Petrides & Furnham, 2000; Schein, 2001). Finally, gender differences could be confounded with other variables in the study. For example, those who were at higher levels in the organization also rated themselves higher on the CE 360, so it is possible that men were more likely to fall into this high-level group compared to women.

Initially, it might be expected that older managers or those who had been coaching an employee for a longer period of time might be more likely to engage in managerial coaching. However, the current study showed that it was not age or length of coaching that predicted CE 360 scores, but the number of people being coached and the level within the organization. These results suggest that managers who work with a larger pool of employees may perceive that they engage in these behaviors more often even with a higher managerial workload. Additionally, there are two possible explanations for why managers at higher levels within organizations rate themselves higher on the CE 360. The first is that being at a higher level in an organization makes managers more likely to perceive that they engage in these behaviors. Alternatively, it could be that managers who perceive themselves as engaging in more managerial coaching behaviors are more likely to be promoted to higher levels within organizations.

Practical Implications for the Workplace

The analyses discussed here were exploratory; therefore, more research is needed to better understand their implications. However, they speak to some general practices that organizations can consider when measuring managerial coaching. First, they suggest that it is important to consider self-bias when looking at ratings of management and corroborate perceptions of direct reports as much as possible with objective measures and indicators of manager performance. Second, it is important to consider outside factors that could influence managerial coaching. Regardless of whether those factors can be used to increase managerial coaching or are simply useful for descriptive purposes, it is important to note that managerial coaching does not occur without outside influence and that ratings can be impacted in many ways.

Limitations

The overall goals of the studies presented here were accomplished- information was gathered regarding both the measure of managerial coaching and also the relationship between managerial coaching and other workplace variables. However, there were also several limitations of the current study. These limitations should be considered both in the interpretation of the current study and also in future research.

The unidimensionality of the CE 360 limited the studies in a number of ways. First, it provided a challenge for establishing construct validity, as the current measure cannot be broken down into discrete dimensions that make up the managerial coaching construct, which would allow for a comparison to both the theoretical framework that was used to develop the CE 360 (i.e., RACSR Model), and to previous multidimensional measures of managerial coaching (McLean et al., 2005; Parh, 2007). Second, it was not possible to improve the measure for Study

Two as originally intended. This meant that the managerial coaching construct in the Study Two was represented by a composite score based on the unidimensional managerial coaching construct, as opposed to discrete components that could be, potentially, found to predict different outcomes on the proposed mediation model.

Second, the generalizability of the current results is limited by the participant pool and data set analyzed here. The participants included here were of a higher-than-average education level, which could potentially influence the results. They also tended to be in higher-level positions in their organizations, so their perspectives may differ if compared to individuals at lower levels. Additionally, the average age of the participants was close to 50 years old. It is possible that this does not reflect the age of employees in various organizations and that this could impact the results. In general, a more representative sample could have generated different results than those presented here.

Additionally, the data used for the current study was archival. This made it impossible to change or add to the measures used and the information collected. For example, performance and satisfaction could have been measured in addition to employee engagement to allow for a comparison between outcomes as opposed to just employee engagement. The archival data presented here was valuable for many reasons, including the sample size, but the lack of ability to make changes to variables and measures limited the analyses in some ways.

A fourth limitation is that the variables in the current study were measured all at once, limiting the ability to examine potential causal relationships between the variables. While path analysis was used to attempt to identify causal relationships, the current analyses were not able to support a causal framework. Measuring changes over time could help to identify outcomes that

are directly influenced or caused by managerial coaching, adding to its theoretical importance and practical utility.

A fifth limitation is the possibility of halo effect present in direct report ratings. Halo effects refer to the tendency of respondents' overall perceptions to influence assessments of specific traits (Cooper, 1981; Thorndike, 1920). In the present study, it is possible that managerial coaching ratings are overly influenced by direct report perceptions of other management traits related to the managerial coaching construct, as well as the perceived quality of their relationship. For example, direct reports that believe to have a close relationship with their managers might provide them higher ratings when asked to evaluate their manager across a number of different areas. The halo effect entails that the high ratings might be a reflection of the direct reports' overall perception of their manager, as opposed to objective perceptions of the specific areas being evaluated.

A sixth limitation relates to the possibility of a priming effect in the administration of the assessment. Priming refers to the effects of a stimulus on subsequent responses to a later stimulus (Cramer, 1968). Participants that completed the CE 360 first responded to 52 questions in which they were asked to rate their managers frequency of use of different behaviors. Then they were asked to complete a short employee engagement, perceived supervisor support, and occupational self-efficacy survey in which they rated themselves. It is possible that completing the managerial coaching survey impacts how direct reports rate themselves in the employee engagement, perceived supervisor support, and occupational self-efficacy surveys. For example, if a direct report rates their manager highly in the CE 360, indicating that their manager frequently uses managerial coaching behaviors at work, they might rate themselves more

favorably in the employee engagement survey than if they had responded to that survey before completing the 52 items in the CE 360.

Finally, the current study considered only a limited number of variables. There are many potential influencers of managerial coaching, occupational self-efficacy, and employee engagement. The current research can only speak to one subset of the many factors that could lead to or come from any of the variables listed here. While the information presented in the current studies is valuable for understanding the variables presented here, it is important to not generalize the results listed here to other potential factors or to limit the understanding of managerial coaching and outcomes to only what is examined here.

Recommendations for Future Research

The results of the current studies and the limitations outlined above suggest several potential avenues for future research. While both studies answered questions regarding managerial coaching, they also pointed to new questions that can only be answered through additional research and consideration.

First, the results of the first study suggest that more information is still needed to better understand the managerial coaching construct. The fact that the CE 360 related to general coaching effectiveness shows its potential. However, the unidimensionality of the measure raises questions about how to best move forward with research on this area. One possible route would be to modify the CE 360 so that it contains a smaller number of items across components, and comparing the modified measure to previous managerial coaching measures. A comparison to Ellinger et al. (2003) measure would be helpful to understand what benefits, if any, come from a more comprehensive measure of managerial coaching that is still unidimensional. A comparison to Park (2007) would be helpful in order to understand whether a measure anchored

in business terminology can be found to be multidimensional, as well as to compare the dimensions that are found across both measures, assuming that the revised CE 360 measure is multidimensional. It would also be beneficial to test the revised measure with a more representative sample of participants to ensure that the measure itself can be used in a wider variety of organizations and situations.

Second, the variables presented here could be retested in different ways in order to better understand the relationships explored here. One potential future direction could include measurement of the outcomes over time compared to changes in managerial coaching. Especially considering the importance of relationships and development in managerial coaching, a longitudinal study could provide important perspective on managerial coaching and the way it influences workplace outcomes for employees.

Third, there is potential for the inclusion of many other variables along with those presented here in a variety of models. Previous research has shown that managerial coaching can be related to both employee satisfaction and performance, so being able to compare employee engagement to satisfaction and performance could be important for understanding managerial coaching (Ellinger et al., 2003). Additionally, since the mediation model presented here was not supported other potential mediators could be explored, such as LMX (Kuzmycz, 2011). In general, future research could examine other individual and organizational factors that could influence the variables and relationships examined here.

Fourth, to assess whether there is a significant priming effect due to the administration of the CE 360, the order in which participants take the measure could be randomized. If the numbers of participants is large enough, there could be a control group that responds to the

survey in the same order and an experimental group that responds to the surveys in a randomized order.

Finally, the additional analyses conducted here suggest that ratings of managerial coaching using the CE 360 could be influenced by outside factors. Future research could further examine the relationship between CE 360 ratings and gender in order to better understand if there are actual differences in frequency of managerial coaching between genders, if bias is influencing the ratings, or both. Along the same lines, future studies could establish whether being at higher levels in organizations makes managers more likely to engage in managerial coaching or if managerial coaching is a potential influence on likelihood to be promoted. Each of these studies could also more closely examine any differences between the CE 360, general effectiveness, and ratings, performance, and promotion.

Conclusion

Empirical research examining managerial coaching has not kept up with the prevalence of managerial coaching in organizations (Beattie et al., 2014). This has resulted in a need for research examining managerial coaching in order to better understand the construct from both a theoretical and a practical perspective. Managerial coaching has been shown to relate to several important outcomes, including performance, satisfaction, and engagement, but evidence of these relationships is limited (Ellinger, Ellinger, & Keller, 2005). Additionally, there have been problems measuring managerial coaching, with definitions, outcomes, and theoretical structures varying across measures (Hamlin, Ellinger, & Beattie, 2006). The current studies were designed to address all of the issues listed here. The first study examined a new measure of managerial coaching, the CE 360, through its reliability, validity, and structure. The second study examined

the potential relationship between managerial coaching, occupational self-efficacy, and employee engagement.

Results suggest that further research is needed to establish the construct validity of the managerial coaching construct. Additionally, the existing measures are limited either by relying on items that are not exclusively based on workplace constructs (McLean et al., 2005; Park, 2007) by being too narrow and unidimensional (Ellinger et al., 2003), or by being too broad and unidimensional (i.e., CE 360). While there was no support for a mediation relationship between managerial coaching, occupational self-efficacy, and employee engagement, there are several potential relationships that could be explored further in future research. That includes a relationship between managerial coaching and both gender and organization level. Although additional research is needed, the current results suggest that existing measures are limited, and research should focus on improving existing measures or developing a new measure of managerial coaching before focusing on research that focuses on managerial coaching outcomes.

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APPENDIX A

The Coaching Effectiveness 360® Items

- Response Scale:
- 1 = Never
 - 2 = Almost Never (A few times a year)
 - 3 = Rarely (Once a month or less)
 - 4 = Sometimes (A few times a month)
 - 5 = Often (Once a week)
 - 6 = Very often (A few times a week)
 - 7 = Always (Every day)
 - Don't know

Component: Relationship

Competency: Establishes Boundaries

- 1) Is clear about objectives for employee development
- 2) Shows good judgment about which information to share and which to hold private
- 3) Shares employee development plan with stakeholders
- 4) Clearly articulates the limits of confidentiality
- 5) Takes time to clarify roles

Component: Relationship

Competency: Builds Trust

- 6) Demonstrates patience in relationships
- 7) Avoids gossip
- 8) Is fair and ethical
- 9) Follows through on promises or agreements
- 10) Leads by example
- 11) Assumes positive intent
- 12) Is aware of their impact on others

Component: Assessment

Competency: Creates Awareness Through Feedback

- 13) Provides timely positive feedback
- 14) Provides timely negative feedback
- 15) Explores the gap between current performance and desired performance
- 16) Helps employees make sense of their feedback
- 17) Helps employees recognize current strengths
- 18) Helps employees recognize areas for improvement
- 19) Gives feedback in the moment

Appendix A (continued)

The Coaching Effectiveness 360® Items (continued)

Component: Assessment

Competency: Encourages Self-Discovery

- 20) Helps employees see complex problems from different points of view
- 21) Assists in discovering underlying causes of current behaviors
- 22) Helps employees understand the intent of their behavior
- 23) Encourages the use of reflection as a tool for increasing self-awareness
- 24) Helps employees notice when they repeat ineffective behaviors

Component: Support

Competency: Listens for Understanding

- 25) Listens carefully to the ideas and suggestions of others
- 26) Demonstrates understanding by restating or summarizing what others say
- 27) Shows genuine curiosity in what employees say
- 28) Demonstrates attentiveness with eye contact and body posture
- 29) Puts distractions aside to focus on important conversations
- 30) Asks questions more than gives advice

Component: Support

Competency: Sustains Momentum

- 31) Holds employees accountable for achieving their desired goals
- 32) Checks in on progress toward goals
- 33) Helps identify obstacles to achieving goals
- 34) Helps employees adjust goals when necessary
- 35) Rewards employees' progress toward their goals
- 36) Acknowledges good work

Component: Challenge

Competency: Challenges Thinking and Assumptions

- 37) Helps employees explore the unintended consequences of a potential action
- 38) Uses metaphors and stories to challenge current thinking
- 39) Challenges assumptions in order to explore new ideas
- 40) Encourages employees to generate alternative solutions
- 41) Asks open-ended questions to challenge current thinking
- 42) Helps employees think through the consequences of not making changes

Appendix A (continued)

The Coaching Effectiveness 360® Items (continued)

Component: Challenge

Competency: Promotes Practice

- 43) Helps employees implement new strategies for getting work done
- 44) Encourages employees to practice new behaviors
- 45) Helps employees take part in stretch assignments
- 46) Encourages employees to take reasonable risks
- 47) Role plays difficult conversations with employees to increase confidence
- 48) Encourages employees to handle difficult conversations directly

Component: Results

Competency: Sets Goals

- 49) Aids employees in identifying goals that will have the greatest impact
- 50) Helps employees identify specific behaviors that will lead to achieving their goals
- 51) Assists employees in creating a development plan that incorporates their goals
- 52) Assists in establishing specific milestones for employees' goals

APPENDIX B

General Coaching Effectiveness Survey

Response Scale: 1 = among the worst
 2 = less well than most
 3 = as well as most
 4 = better than most
 5 = among the best

How well does this person coach others to make positive changes?

How well does this person coach others to perform to their potential?

How would you rate this person's effectiveness as a coach?

APPENDIX C

Perceived Supervisor Support Items from Eisenberger et al. (2002)

Response Scale: 1 = Strongly Disagree
 2 = Disagree
 3 = Neither Agree or Disagree
 4 = Agree
 5 = Strongly Agree

My supervisor fails to appreciate any extra effort from me. (Reverse coded)

My supervisor really cares about my well-being.

My supervisor shows very little concern for me. (Reverse coded)

My supervisor takes pride in my accomplishments at work.

APPENDIX D

Utrecht Work Engagement Scale (UWES) Items from Hallberg & Schaufeli (2006)

Response Scale: 1 = Never
 2 = Almost Never (A few times a year)
 3 = Rarely (Once a month or less)
 4 = Sometimes (A few times a month)
 5 = Often (Once a week)
 6 = Very often (A few times a week)
 7 = Always (Every day)
 Don't know

At my work, I feel bursting with energy.

At my job, I feel strong and vigorous.

I am enthusiastic about my job.

My job inspires me.

When I get up in the morning, I feel like going to work.

I feel happy when I am working intensely.

I am proud of the work that I do.

I am immersed in my work.

I get carried away when I am working.

APPENDIX E

Short Version of the Occupational Self-Efficacy Scale Items from Osipow, Temple, & Rooney (1993)

Response Scale: 1 = Strongly Disagree
 2 = Disagree
 3 = Neither Agree or Disagree
 4 = Agree
 5 = Strongly Agree

I can remain calm when facing difficulties in my job because I can rely on my abilities.

When I am confronted with a problem in my job, I can usually find several solutions.

Whatever comes my way in my job, I can usually handle it.

My past experiences in my job have prepared me well for my occupational future.

I meet the goals that I set for myself in my job.

I feel prepared for most of the demands in my job.

APPENDIX F

Descriptive Statistics and Zero-Order Correlations

Managers of Interest – Descriptive Statistics

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	min	max
Perceived Supervisor Support	3.70	1.08	1925	1	5
CE 360	272.35	32.34	1496	128	360
UWES	51.55	6.66	1910	12	63
OSE	25.59	2.65	1932	12	30
General Coaching Effectiveness	3.50	0.64	1935	1	5

Note: (n = 1,950).

Managers of Interest – Zero-order Correlations

Variable	1	2	3	4	5
1. Perceived Supervisor Support	-				
2. CE 360	-0.03	-			
3. UWES	0.13*	0.39*	-		
4. OSE	0.03	0.42*	0.41*	-	
5. General Coaching Effectiveness	-0.05	0.56*	0.25*	0.36*	-

Note: (n = 1,950).

* $p < .001$

Direct Report – Descriptive Statistics

Variable	<i>M</i>	<i>SD</i>	min	max	<i>n</i>
Perceived Supervisor Support	3.84	1.13	1	5	5383
CE 360	287.3	49.23	54	364	2572
UWES	50.64	8.08	15	63	5278
OSE	25.75	2.76	6	30	5327
General Coaching Effectiveness	3.85	0.89	1	5	5243

Direct Reports Zero-order Correlations

Variable	1	2	3	4	5
1. Perceived Supervisor Support	-				
2. CE 360	0.34	-			
3. UWES	0.22	0.43	-		
4. OSE	0.10	0.28	0.46	-	
5. General Coaching Effectiveness	0.35	0.77	0.34	0.20	-

Note. All correlations are statistically significant at the .001 level.

APPENDIX G

Means by Organizational Level and Gender

Means by organizational level

	Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>SE</i>	<i>min</i>	<i>max</i>
Executive	CE 360	277.01	30.27	463	1.40	128	358
	UWES	52.49	6.37	463	0.29	33	63
	OSE	25.97	2.44	463	0.11	15	30
Top	CE 360	291.79	28.32	100	2.83	203	357
	UWES	54.79	5.36	100	0.53	40	63
	OSE	26.44	2.40	100	0.24	22	30
Upper Middle	CE 360	267.69	31.76	487	1.43	144	349
	UWES	51.23	6.46	487	0.29	27	63
	OSE	25.45	2.68	487	0.12	15	30
Middle	CE 360	263.69	32.99	297	1.91	146	360
	UWES	50.73	6.49	297	0.37	29	63
	OSE	25.33	2.67	297	0.15	12	30
First level	CE 360	268.48	32.42	37	5.33	218	341
	UWES	48.78	7.47	37	1.22	28	62
	OSE	25.56	3.01	37	0.49	18	30
Hourly	CE 360	283	5.65	2	4	279	287
	UWES	48.5	0.70	2	0.5	48	49
	OSE	25.5	3.53	2	2.5	23	28

Note: (n = 1,950). Sample size varies due to missing data.

Means by gender

	Variable	<i>M</i>	<i>SD</i>	<i>N</i>	<i>SE</i>	<i>min</i>	<i>max</i>
Female	CE 360	268.31	31.88	655	1.24	144	360
	UWES	51.39	6.65	655	0.26	27	63
	OSE	25.52	2.65	655	0.10	12	30
Male	CE 360	275.93	32.20	787	1.14	128	358
	UWES	52.26	6.35	787	0.22	27	63
	OSE	25.80	2.54	787	0.09	15	30

Note: (n = 1,950). Sample size varies due to missing data.