

**MANAGERIAL COACHING BEHAVIOR AND EMPLOYEE OUTCOMES:
A STRUCTURAL EQUATION MODELING ANALYSIS**

A Dissertation

by

SE WON KIM

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2010

Major Subject: Educational Human Resource Development

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Managerial Coaching Behavior and Employee Outcomes:

A Structural Equation Modeling Analysis

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August 2010

Major Subject: Educational Human Resource Development

ABSTRACT

Managerial Coaching Behavior and Employee Outcomes:

A Structural Equation Modeling Analysis.

(August 2010)

Se Won Kim, B.S., University of Ulsan, Korea

Chair of Advisory Committee: Dr. Toby Marshall Egan

During the last two decades, managerial coaching has become increasingly popular in organizations. Despite its popularity, there is a paucity of empirical evidence in the study of managerial coaching outcomes. The purpose of this study was to examine the relationships between perceived managerial coaching behavior and employee self-reported affective and performance-related outcomes based on perceptions of selected organization employees. Three theories, path-goal leadership, career motivation, and organization support, were used to frame the hypothesized conceptual model of managerial coaching outcomes for the current study. The systematic review of relevant literature identified satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment for the potential outcomes of managerial coaching.

A 36-item survey including seven existing instruments was utilized to collect data. An estimation of the readability level for the survey was Flesh-Kincaid Grade Level 7.1. The survey was sent electronically to all employees in the selected

government organization. The sample included 431 respondents representing a population of 1,399 employees. Descriptive statistics, principal component analysis, Cronbach's alpha estimates for reliability, correlation analysis, two-step modeling techniques for structural equation modeling, and Sobel tests were the analysis methods used in the study.

The results of the analyses indicated that the hypothesized conceptual model was adequately supported by the empirical data of the study sample ($\chi^2/df = 3.53$; CFI = .91; IFI = .91; RMSEA = .08). The further investigations suggested that managerial coaching had a direct impact on employee satisfaction with work and role clarity and an indirect impact on satisfaction with work, career commitment, job performance, and organization commitment. Role clarity, as a direct outcome of managerial coaching, influenced job performance—such mediation was consistent with the hypothesized model for the study. The hypothesized model had clear and comprehensive illustrations of how managerial coaching affects work and organization-related variables, satisfaction with work, role clarity, career commitment, job performance, and organization commitment. This study provides empirical support to the proposed benefits of managerial coaching in organizations, and enhances the selected theories by offering additional empirical support to them.

DEDICATION

To Jesus Christ,

my lord

&

Eunji Kim, Grace Kim, Youngjoo Kim, Kyoungsoon Yoo, Jaewon Kim, Junok Park,

Youngchan Kim, Inae Park, & Donghyun Kim,

my beloved family

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CHAPTER I

INTRODUCTION

Managerial coaching is defined as an effective managerial practice that helps employees learn and become effective (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Peterson & Hicks, 1996). During the last two decades, managerial coaching has become increasingly popular in organizations (Gilley, 2000; Park, 2007). Managers and organizations started to recognize it as one of the most desirable behaviors for successful management and leadership and learning organization (Ellinger, Ellinger, & Keller, 2003; Evered & Selman, 1989; Hannah, 2004; Hargrove, 1995; Peterson & Hicks, 1996). Many books have been written in the area of managerial coaching and numerous training programs on the topic have been provided by many consulting firms (Ellinger et al., 2003). Longenecker and Neubert (2005) found that employees in organizations want to receive more coaching from their managers and believe managerial coaching results in personal advancement and organizational competitiveness.

The popularity of managerial coaching appears to be related to rapid changes in organization environments, such as globalization, technology development, and the nature of work. Organizations began to recognize the need for a new management and leadership approach to address the developmental needs of the employees and organizations in an increasingly dynamic work environment. Managers are being more

This dissertation follows the style of *the Journal of Applied Psychology*.

and more asked to empower employees to be self-directed and facilitate them to effectively learn and develop themselves, rather than to direct and control employees as traditional managers did in the past (Bass & Bass, 2008; Evered & Selman, 1989; Gilley, 2000). Changes in organization environments have brought about changes in expectations for management and leadership roles. Therefore, managerial coaching is being called a new type of effective management and leadership behavior in organizations.

Coaching is often regarded as an effective organization development (OD) strategy and a successful way to develop next managers and leaders in organizations (Kilburg, 1996; McLean, Yang, Kuo, Tolbert, & Larkin, 2005; Rothwell, Sullivan, & McLean, 1995). Recently, coaching, including managerial and executive coaching, has received more attention in human resource development (HRD) literature in that both coaching and HRD focus on individual and organization effectiveness, performance improvement, behavior change, learning and management, human potential, and personal growth (Ellinger et al., 2003; Hamlin, Ellinger, & Beattie, 2008).

Despite its popularity, there is a paucity of evidence regarding the empirical study of managerial coaching, since managerial coaching is an emerging area of practice and research (Ellinger et al., 2003; Evered & Selman, 1989; Park, 2007; Wenzel, 2000). Although managerial coaching has become a frequent topic in management and HRD-related literature during recent years, there is still much exploration needed.

Problem Statement

The specific manner in which managerial coaching is practiced in organizations and employee reactions to such coaching are unclear (Ellinger et al., 2003; Evered & Selman, 1989; Orth, Wilkinson, & Benfari, 1987). Ideally, while engaging in managerial coaching, managers who are commonly concerned about their role as a scientific, controlling, and directive manager shift to an emphasis on holistic, collaborative, and participative interaction (Evered & Selman, 1989; Wenzel, 2000). Managers and organizations also perceive coaching to be a meaningful, but time consuming activity (Zemke, 1996). The perceived time consuming nature of managerial coaching implies that coaching may not be practiced daily by managers, even though managerial coaching has become popular in organizations (Gilley, 2000; Park, 2007). An absence of managerial coaching and feedback from their manager may lead employees to react with dissatisfaction and decreased organization commitment as well as ineffective performance.

Because there is limited published research on managerial coaching, misunderstandings regarding what managerial coaching is, how it is practiced in organizations, and how it is different from traditional management, executive coaching, mentoring or counseling are present (Ellinger & Bostrom, 1999; Hamlin et al., 2008; Wenzel, 2000). To a larger extent, there is a lack of empirical work in the study of managerial coaching outcomes, although many case studies and practitioner reports considering the potential outcomes have been presented (Ellinger et al., 2003; Hagen, 2008; Park, 2007). Ellinger et al. (2003) conducted one of the first empirical outcome

studies on managerial coaching. Recently, Park (2007) examined the relationships between managerial coaching and personal learning, organization commitment, and turnover intention. More investigation is still needed in terms of the outcomes of managerial coaching, particularly the relationships between managerial coaching and other employee responses in organizations.

Purpose of the Study

The purpose of this study was to examine the relationships between perceived managerial coaching behavior and employee self-reported affective and performance-related outcomes. The dependent variables for the study were identified as *perceived employee satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment* (to avoid repetitiveness, the term of *perceived* will be omitted as describing these variables hereafter).

In particular, the direct and indirect relationships between manager's coaching behavior and employee's responses were the focus of this study. An aim of the study was to investigate the direct relationships of managerial coaching behavior to employee job performance, satisfaction with work, role ambiguity, and satisfaction with manager. The mediating role of several variables; role ambiguity to satisfaction with work, job performance, and satisfaction with manager; satisfaction with work and satisfaction with manager to career commitment, job performance, and organization commitment; and career commitment and organization commitment to job performance, between managerial coaching behavior and employee job performance, was also examined.

Theoretical Framing

Few researchers had incorporated theory into managerial coaching studies, since managerial coaching is still an emerging area of research and practice. However, a major development in managerial coaching research needs to gain attention, the application of theory. Herein, the theoretical framework applied for the current study is addressed.

Three theories were utilized to examine and frame the potential outcomes of managerial coaching in organizations for this study. In particular, path-goal leadership, career motivation, and organization support were employed to provide insight to relationships between and among managerial coaching behavior and employee affective and performance-related outcomes (also see the figure on page 18).

First, path-goal leadership theory (Evans, 1970; House, 1971, 1996) was used to identify and frame the potential outcome variables of managerial coaching in the current study: *employee role ambiguity*, *satisfaction with work*, *satisfaction with manager*, and *job performance*. Since path-goal leadership theory is clearly open to the inclusion of other styles of effective management and leadership behaviors (House, 1996; Northhouse, 2001), managerial coaching can be considered as an effective management and leadership behavior in the context of path-goal leadership theory. *Managerial coaching*, as an effective management and leadership behavior, can reduce employee *role ambiguity* by clarifying goals and paths (Ellinger & Bostrom, 1999; Ellinger et al., 2003; Hargrove, 1995; House, 1991, 1996; House & Mitchell, 1974; Peterson & Hicks, 1996) and in turn, the reduced *role ambiguity* can increase employee *satisfaction with work*, *satisfaction with manager*, and *job performance* (Jackson & Schuler, 1985; Rizzo

et al, 1970; Spector, 1997). *Managerial coaching* can also directly influence on employee *satisfaction with work*, *satisfaction with manager*, and *job performance* by being supportive, providing resources and information, removing roadblocks and obstacles, and initiating structure (Ellinger & Bostrom, 1999; Ellinger et al., 2003; Hargrove, 1995; Peterson & Hicks, 1996; Zemke, 1996).

And, career motivation theory (London, 1983; London & Mone, 1987) was used to identify and frame the potential outcome variables of managerial coaching in this study: employee *satisfaction with work* and *career commitment*. Managerial coaching can be regarded as a means of supervisor and organization support as well as an effective management and leadership behavior for employee career development in the context of career motivation theory. Being supportive, collaborative goal setting and action planning, constructive feedback, and empowering offered by *managerial coaching* for career development can influence employee immediate *satisfaction with work* and long-term *commitment to career* (Aryee & Tan, 1992; Ellinger & Bostrom, 1999; Ellinger et al., 2003; Hamlin et al., 2008; London, 1983, 1988, 1993; Noe, Noe, & Bachhuber, 1990).

Organization support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986) was used to identify and frame the potential outcome variables of managerial coaching in the current study: employee *satisfaction with manager* and *organization commitment*. Managerial coaching can be regarded as a form of perceived organization support as well as an effective management and leadership behavior in the context of organization support theory. Since employees perceive management and leadership supportive

behaviors as a sign of organization support (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Kottke and Sharafinski (1988); Levinson, 1965), *managerial coaching* received by employees can generate employee *satisfaction with manager* and reciprocate employee *commitment to organization* (Eisenberger et al., 1986; Eisenberger et al., 2002; Rhoades & Eisenberger, 2002; Stamper & Johlke, 2003) in the social exchange view.

In conclusion, these identified theories, path-goal leadership, career motivation, and organization support, contributed to framing of the potential outcome variables of managerial coaching for the current study. Path-goal leadership theory frames managerial coaching as an effective management and leadership behavior to motivate and satisfy employees and improve their performance toward designated goal achievement. Similarly, career motivation and organization support theories frame managerial coaching as a way of supervisor and organization support to motivate and satisfy employees and promote their commitment to career and organization toward designated goal achievement.

Research Question

In order to investigate the associations among managerial coaching behavior and employee outcomes, I sought to answer the following research question:

What are the relationships between and among managerial coaching behavior and employee self-reported affective and performance-related responses?

This overarching question is supported by several research hypotheses.

Research Hypotheses

I investigated several hypotheses in the study (see Figure 1 below for visual display of these hypothesized paths). These hypotheses are described more closely in the review of literature and include the following:

Hypothesis 1: There will be a significant positive relationship between managerial coaching behavior and employee job performance.

Hypothesis 2a: There will be a significant positive relationship between managerial coaching behavior and employee satisfaction with work.

Hypothesis 2b: There will be a significant negative relationship between managerial coaching behavior and employee role ambiguity.

Hypothesis 2c: There will be a significant positive relationship between managerial coaching behavior and employee satisfaction with manager.

Hypothesis 3a: There will be a significant negative relationship between employee role ambiguity and satisfaction with work.

Hypothesis 3b: There will be a significant negative relationship between employee role ambiguity and job performance.

Hypothesis 3c: There will be a significant negative relationship between employee role ambiguity and satisfaction with manager.

Hypothesis 4a: There will be a significant positive relationship between employee satisfaction with work and career commitment.

Hypothesis 4b: There will be a significant positive relationship between employee satisfaction with work and job performance.

Hypothesis 4c: There will be a significant positive relationship between employee satisfaction with work and organization commitment.

Hypothesis 5a: There will be a significant positive relationship between employee satisfaction with manager and career commitment.

Hypothesis 5b: There will be a significant positive relationship between employee satisfaction with manager and job performance.

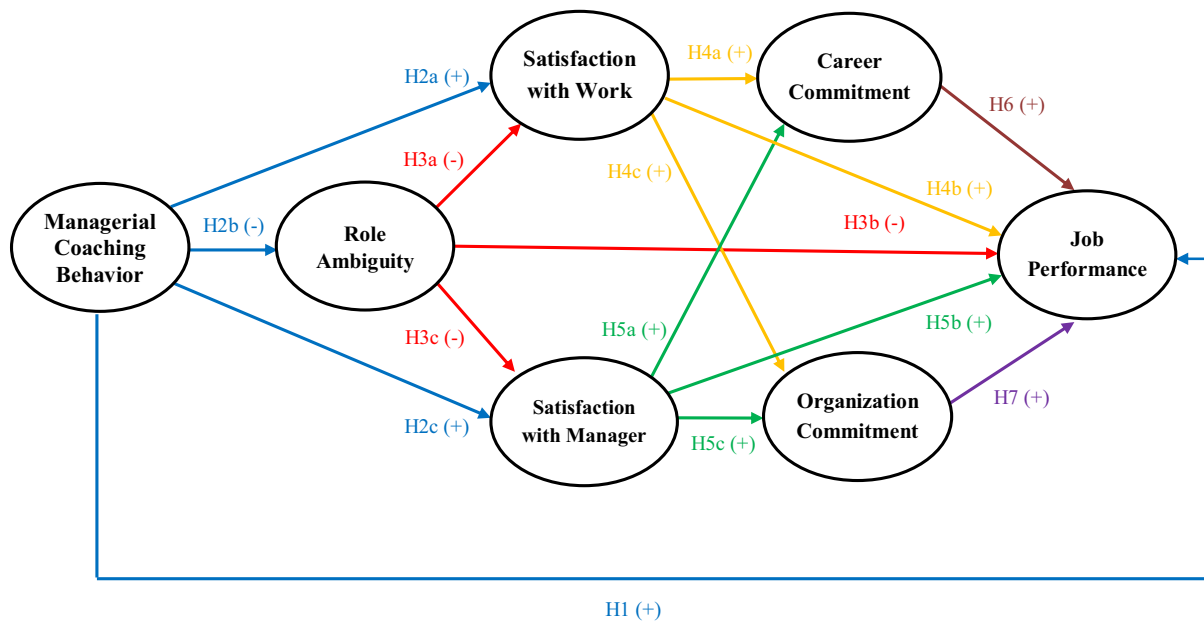


Figure 1. Hypothesized model of managerial coaching outcomes.

Hypothesis 5c: There will be a significant positive relationship between employee satisfaction with manager and organization commitment.

Hypothesis 6: There will be a significant positive relationship between employee career commitment and job performance.

Hypothesis 7: There will be a significant positive relationship between employee organization commitment and job performance.

Significance of the Study

The study may have significant implications for HRD research and practice. First, few studies have been reported on the subject of managerial coaching. Although there are white papers and practitioner reports that imply potential benefits of managerial coaching, not many empirical studies have been reported in which these arguments are examined more closely. Therefore, this study has the potential to provide empirical support to the proposed advantages and/or disadvantages of managerial coaching in organizations.

Although coaching has earned popularity in industries during recent years, this study may provide a clearer picture of managerial coaching practices in organizations. Findings may not only assist managers to understand how their behaviors impact employee behaviors, attitudes, and perceptions, but also identify and focus on specific coaching behaviors to maximize their management and leadership effectiveness.

Operational Definitions

Definitions of key terms for the study include the following:

Career Commitment

Career commitment refers to the strength of individual's "motivation to work in a chosen career role" (Hall, 1976, p. 59). In the present study, career commitment is identified as a type of employee commitment.

Human Resource Development

Human Resource Development is a field of practice that is the integration of three major functions, training and development, organization development, and career development (McLagan, 1989).

Job Performance

Job performance is defined as "behaviors and actions that are relevant to the goals of the organization" (McCloy et al., 1994, p. 493). In specific, job performance for this study is identified as employee in-role performance—as compared to extra-role performance, organization citizenship behaviors and actions.

Managerial Coaching

Managerial coaching is an effective managerial practice that helps employees learn and become more effective (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Peterson & Hicks, 1996). It is "conceptualized as a form of coaching that is provided by a supervisor or manager serving as a facilitator of learning. The manager or supervisor enacts specific behaviors that enable the employee (coachee) to learn and develop, and thereby improve performance" (Ellinger, Ellinger, Hamlin, & Beattie, 2010, p. 277). Managerial coaching is identified as a desirable type of managerial action in the current study.

Organization Commitment

Organization commitment refers to the psychological attachment that an individual feels for the organization (Balfour & Wechsler, 1996; Meyer & Allen, 1984; O'Reilly & Chatman, 1986). Organization commitment is identified as another type of employee commitment in this study.

Organization Development

Organization development is a positive change effort “planned, organization-wide, and managed from the top, to increase organization effectiveness and health through planned interventions in the organization’s “processes,” using behavioral-science knowledge” (Beckhard, 1969, p. 9).

Role Ambiguity

Role ambiguity refers to the “lack of necessary information regarding role expectation for a given organizational position” (Rizzo, House, & Lirtzman, 1970, p. 151). In the present study, role ambiguity is identified as a state of employee cognition to their role.

Satisfaction with Manger

Satisfaction with manager refers to individual’s satisfaction with one’s immediate manager (Hackman & Oldham, 1974; Scarpello & Vandenberg, 1987). Satisfaction with manager is identified as an element of employee satisfaction in the current study.

Satisfaction with Work

Satisfaction with work refers to individual's satisfaction to working in one's work or job (Cammann et al., 1983; Cranny, Smith, & Stone, 1992). For the current study, satisfaction with work is identified as a type of employee satisfaction.

Summary

In Chapter I, the introduction of the study was discussed. The problem statement, the purpose of the study, the research question and hypotheses, and the significance of the study were addressed. Also, the operational definitions of the key terms were provided. In Chapter II, the review of literature to the topic and key variables will be presented.

CHAPTER II

LITERATURE REVIEW

The relationships between and among managerial coaching behavior and employee affective and performance-related responses are the focus of the study. In this chapter, the review of literature relevant to the theoretical framework, the conceptual model, and the research question for the study are presented. First, an overview of the literature review procedure is provided in the following section.

Literature Review Procedure

The procedure for reviewing literature involved in the study was: (1) searching and selecting articles, book chapters, and books, (2) summarizing the selected literature, and (3) synthesizing relevant information from the summaries. The literature search process included a keyword search for *managerial coaching*, *satisfaction with work*, *role ambiguity*, *satisfaction with manager*, *career commitment*, *job performance*, and *organization commitment*. The following criteria were used to select literature for these seven latent variables in the study.

- Identified scholarly publications had a keyword related to the seven variables, *managerial coaching*, *employee satisfaction with work*, *role ambiguity*, *satisfaction with manager*, *career commitment*, *job performance*, and *organization commitment*, in the title or abstract of the publication.

- A scholarly publication was defined as a publication that underwent a double-blinded peer-review process, with five or more scholarly references, and with five or more pages.
- The initial search for the scholarly publications was limited to seventeen top journals (as noted below) from fields including: HRD, management, organizational behavior, human resources, and industrial-organizational psychology.
- The seventeen journals used to identify the scholarly publications were:
 - *Academy of Management Journal*
 - *Academy of Management Learning & Education*
 - *Academy of Management Perspectives*
 - *Academy of Management Review*
 - *Administrative Science Quarterly*
 - *Advances in Developing Human Resources*
 - *Human Resource Development International*
 - *Human Resource Development Quarterly*
 - *Human Resource Development Review*
 - *Human Resource Management*
 - *Journal of Applied Psychology*
 - *Journal of Management*
 - *Journal of Occupational and Organizational Psychology*
 - *Journal of Vocational Behavior*

- *Leadership Quarterly*
- *Organization Science*
- *Personnel Psychology*
- The search period for the scholarly publications was the recent five years, from January 2005 to December 2009.
- If the keyword search within the electronic version of the journal led to a large sample size (more than one hundred articles), the search period was adjusted from five years to the most recent one year for the efficiency of the literature review procedure: This adjustment was applied to the two most studied research variables—*job performance* and *organization commitment*.
- Frequently and commonly cited articles, book chapters, books, or seminal works from the publications identified using the aforementioned search process, were also selected, although they preceded the search period.
- A seminal work was defined as a publication with the most common citations in the selected articles, with significant theoretical or conceptual contributions to the variables in the study, and with remarkable empirical applications of the variables to work and organization-related outcomes.
- As an exception, practitioner and magazine articles were also included if they had a keyword related to the variable of *managerial coaching*. Since *managerial coaching* was not much reported in scholarly publications, it was desirable to expand the search scope beyond the scholarly publications.

A Texas A&M University library search engine was used for the literature search procedure. The seventeen electronic journals were selected from the virtual library search engine. A “within search” function was utilized for keyword search within each of the selected journals. The utilized databases for article identification were Business Source Complete (EBSCO), Elsevier SD Academic Press, Elsevier SD JAI, Ingenta Connect British Psychological Society, Informaworld Taylor & Francis Journals Complete, PsycARTICLES (CSA), Sage Management and Organization Studies Full Text Collection, and Wiley Interscience. The identified articles were downloaded and stored in a separate electronic folder. The selected publications were summarized in the table which includes the authors and the year of the study, the abstract from the authors, and the key findings of the study. Interpreting, evaluating, and integrating literature were followed for the literature synthesizing procedure (Pan, 2003).

Theoretical Framework

In this section, the theoretical framework of the current study is discussed. Three theories, path-goal leadership, career motivation, and organization support, were used to examine and frame managerial coaching outcomes in organizations for this study. In particular, the theories were utilized to provide insight to relationships between and among managerial coaching behavior and employee affective and performance-related outcomes (see Figure 2). The descriptions of the three theories and the brief rationales concerning how they were used to frame the conceptual model for the current study are discussed below.

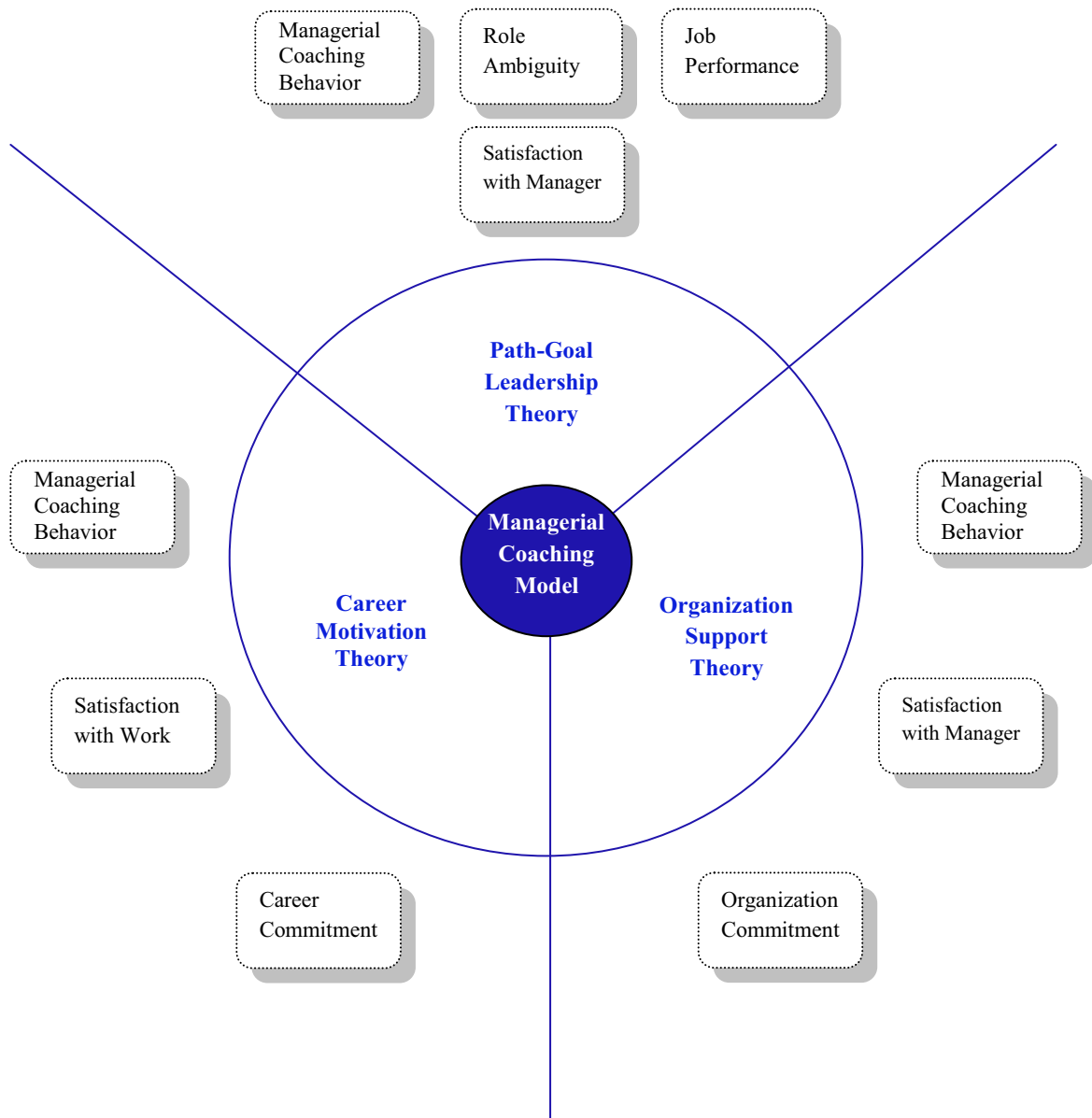


Figure 2. Theoretical framework of managerial coaching outcomes.

Path-goal Leadership Theory

Path-goal leadership appeared in the management and organization literature in 1970s by Evans (1970), House (1971), House and Dessler (1974), and House and Mitchell (1974), and was reformulated in the late 1990s by House (1996). Path-goal leadership theory is about how managers and leaders motivate employees or subordinates to accomplish designated goals, ideally a mutual set of organization, team, and individual performance-related goals. The theory is labeled *path-goal* since its major concern is how managers and leaders can influence employee perception to these goals, paths to achieving the goals, and received supports during traveling these paths (Evans, 1970; House & Mitchell, 1974).

Drawing heavily from the task and relationship leadership approach, researchers identified two components of effective management and leadership behaviors, initiation of structure and consideration (Fleishman & Harris, 1962; Fleishman, Harris, & Burt, 1955; Halpin & Winer, 1957), which affect employee work and organization-related outcomes. Based on these ideas, Evans (1970) argued that one of the strategic functions of effective management and leadership is to clarify a path, role, or behavior that leads employees to their goal accomplishment. Path-goal leadership theorists reported that employees usually performed better when their managers and leaders provided directions and guidance to them or when they viewed managers and leaders as being considerate and supportive to their needs (Evans, 1970; House, 1971). Effective managers and leaders provide “what is missing,” which they think employees need to reach the goals, in various employees and task situations (House & Mitchell, 1974).

According to House and Mitchell (1974) and Indvik (1986), managers and leaders can enhance employee goal achievement by providing rewards, information, or resources. Managers and leaders can increase rewards available to employees by clarifying goals and paths and helping them remove or around frustrating barriers. Managers and leaders can also enlarge rewards by being considerate and supportive to employees. Management and leadership supportiveness itself is a reward that managers and leaders have at their disposal (Evans, 1970). Managers and leaders can motivate employees 1) when they make goals meaningful and rewarding, 2) when they provide paths to the goals clear and easy to undergo via coaching, feedback, and support, 3) when they remove roadblocks and obstacles during traveling the paths to designated goal achievement, 4) and when they make employee work more satisfactory (Northhouse, 2001). Schriesheim and DeNisi (1981) further supported the theory with their findings that task feedback and social interaction were significantly and positively related to initiation of structure and satisfaction with supervision.

House and Dessler (1974) and House and Mitchell (1974) suggested exemplary effective management and leadership behaviors are directive, supportive, participative, and achievement-oriented management and leadership styles. Path-goal leadership theorists argued that managers and leaders need to exhibit one of these styles or a combination of two or more styles among these, contingent on employee conditions: individual characteristics and situational or task characteristics. Individual characteristics determine how management and leadership behaviors are interpreted by employees in a given task context, while task characteristics influence on the way that management and

leadership behaviors affect employee motivation. Path-goal leadership researchers focused on employee need for affiliation, preference for structure, desire for authority and control, locus of control, and task ability for the individual characteristics and employee task, primary work group organization, and organization formal authority system for the task characteristics (House & Mitchell, 1974; Northhouse, 2001). Recently, House (1996) added new styles of effective management and leadership behaviors: work facilitation, group-oriented decision process, work-group representation and networking, and value-based management and leadership styles. Since path-goal leadership theory is explicitly left open to the inclusion of other variables (House, 1996; Northhouse, 2001), managerial coaching is likely another critical management and leadership behavior for effective path-goal management and leadership in organizations.

For this proposed study, path-goal leadership theory was used to frame the variables of *managerial coaching behavior*, *employee role ambiguity*, *satisfaction with work*, *satisfaction with manager*, and *job performance*. As described in the above, managerial coaching can be conceived as an effective management and leadership behavior in the context of the path-goal theory; especially it has been reported that the main characteristics of managerial coaching include initiation of structure and consideration (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Hamlin et al., 2008; Hargrove, 1995; Kilburg, 2000; Peterson & Hicks, 1996), aligned with the historical task and relationship orientation of the path-goal leadership theory (also see the managerial coaching section in Chapter II and the *managerial coaching behavior* items used for this study in Appendix E). *Managerial coaching*, as an effective management and leadership

behavior, can reduce employee *role ambiguity* by clarifying goals and paths or behaviors to achieve the designated goals, and the reduced *role ambiguity*, in turn, increases employee *satisfaction with work, satisfaction with manager, and job performance* (Ellinger & Bostrom, 1999; Ellinger et al., 2003; Evans, 1970; Hargrove, 1995; House, 1971, 1996; House & Mitchell, 1974; Jackson & Schuler, 1985; Peterson & Hicks, 1996; Rizzo et al, 1970; Shriesheim & DeNisi, 1981; Spector, 1997). Initiating structure, being considerate or supportive, providing resources and information, and removing roadblocks and obstacles offered by *managerial coaching* can also directly influence on employee *satisfaction with work, satisfaction with manager, and job performance* (Ellinger & Bostrom, 1999; Ellinger et al., 2003; Elloy, 2006; Evans, 1970; Hargrove, 1995; House, 1971, 1996; House & Mitchell, 1974; Jackson & Schuler, 1985; Lok & Crawford, 2004; Northouse, 2001; Peterson & Hicks, 1996; Rizzo et al., 1970; Shriesheim & DeNisi, 1981; Spector, 1997; Zemke, 1996). Therefore, path-goal leadership theory frames managerial coaching as an effective management and leadership behavior to motivate and satisfy employees and improve their performance toward designated goal achievement. In addition, the details of the hypothesized structural relationships between and among these variables for the current study will be addressed in the latter part of this chapter.

Career Motivation Theory

Career motivation theory was introduced by London (1983) and London and Mone (1987). They proposed an integrative model of career motivation including individual characteristics, situational or work environment characteristics, and career

decisions and behaviors. Career motivation is defined as “the set of individual characteristics and associated career decisions and behaviors that reflect the person’s career identity, insight into factors affecting his or her career, and resilience” (London, 1983, p. 620). According to London (1983), career motivation includes “searching for and accepting a job, deciding to stay with an organization, revising one’s career plans, seeking training and new job experiences, and setting and training to accomplish career goals” (p. 620).

London (1983) asserted that career motivation is a multidimensional construct consisting of career identity, career insight, and career resilience. 1) Career identity is the extent to which individuals identify themselves with their career; 2) career insight is the degree to which individuals are realistic and clear about their career goals and plans; and 3) career resilience is the extent to which individuals are capable to adapt to changing work environments and achieve their career goals. Each of the three dimensions involves: 1) how much they immerse themselves in activities related to their career, job, and role; 2) if they have accurate self-knowledge about their own strengths and weaknesses, understand changing work environments including technology innovation and future employment situation, and generate goals and paths planned for their career; and 3) whether they are willing to take risks, welcome new developmental job and role, and be persistent toward designated career goal achievement, respectively. Each dimension is associated with individual characteristics, situational characteristics, and career decisions and behaviors which interact with one another.

Career decisions and behaviors can be made by prospective rationality and/or retrospective rationality. The earlier, prospective rationality, is guided by future outcomes that are desired and one's expectations to future outcomes achievement, while the later is guided by interpreting past environments and decisions and behaviors and one's psychological state to the interpretations (London, 1983). This theory is complex but provides a holistic view to understand career motivation in the interactive context of individual, situational, and career decisions and behaviors.

Career motivation is often interchangeable with career commitment (Carson & Bedeian, 1994) and supported by many studies in the topic area of career development and management (Carden, 2007). Noe et al. (1990) reported that career motivation was significantly and positively related to motivating job characteristics and work role salience. In specific, career insight and resilience were related to management and leadership support and the match between individual and organization career plans. Aryee and Tan (1992) conducted a study examining antecedents and consequences of career commitment, based on the career motivation theory. They identified organization opportunity for development, career satisfaction, and work role salience as significant antecedents of career commitment and skill development and decreased career and job withdrawal intentions as significant outcomes of career commitment. These findings indicated that theoretical formulations of the career motivation theory were supported and consistent.

London (1988) argued that organization support could enhance employee career motivation and commitment. He addressed how organizations could provide their

support for employee career development in times of organization decline, merger and acquisition, growth, start-up, and redirection. He also suggested supportive organization-level HRD strategies to strengthen employee career motivation and commitment, such as open information communication, employee involvement in organization goal setting and planning, joint evaluation of skill requirement, development opportunities, and recognition and reward for success.

In two studies of his, London (1993) conducted closer examinations on career motivation. He investigated the relationships between career motivation, management and leadership support for career development, and empowerment. The results indicated that career motivation, particularly career identity and insight, were significantly and positively related to immediate manager and leader support as well as empowerment. Management and leadership support for employee career development included setting clear goals for employee career, working with employees to develop career plans, providing feedback on employee job and role toward career goal achievement, and training and developing employees. Empowerment contained ensuring that employees have the authority to do their job, demonstrating trust and confidence in employees, and treating them with respect and dignity. London's career motivation theory implies that managerial coaching, which has the aspects of organization support, management and leadership support, joint goal and path planning on employee role, job, and career, performance feedback, and empowerment, is potentially related to increasing employee career motivation and commitment.

For the proposed study, career motivation theory was used to frame the variables of *managerial coaching behavior*, *satisfaction with work*, and *career commitment*. As described above, managerial coaching can be regarded as a supervisor and organization support as well as an effective management and leadership behavior for employee career development. *Managerial coaching* with the aspects of supportiveness, collaborative planning, constructive feedback, and empowering can influence employee *satisfaction with work* in the short-term and *career commitment* in the long-term (Aryee & Tan, 1992; Ellinger & Bostrom, 1999; Ellinger et al., 2003; Hamlin et al., 2008; London, 1983, 1988, 1993; Noe et al., 1990). Career motivation theory frames managerial coaching as a supervisor and organization support to motivate and satisfy employees and promote their career commitment toward designated goal achievement.

Organization Support Theory

Organization support theory was originated by Eisenberger and his associates (1986) to explain reciprocation (Levinson, 1965) of commitment between the employee or individual and the organization. Based on the social exchange interpretation (Blau, 1964; Homans, 1958; Gouldner, 1960) of organization commitment, Eisenberger et al. (1986) argued that “to determine the personified organization’s readiness to reward increased work effort and to meet needs for praise and approval, employees develop global beliefs concerning the extent to which the organization values their contributions and cares about their well-being” (p. 501). Such employee perceived organization support (POS) is valued as assurance that they can get support from the organization when employees need them to carry out their job or role and to handle demanding

situations. POS is influenced by various practices of the organization and in turn, influences employee attitudes and behaviors to the organization. As with the personification of the organization (Levinson, 1965), employees feel obligated to care about organization well-being and help the organization achieve its mission and goals. The organization, in the exchange relationship, regenerates favorable treatments back for employees. Between the employee and the organization, favorable treatments received by either party are reciprocated and lead to enriching outcomes for both employee and organization (Rhoades & Eisenberger, 2002).

In a meta-analysis of POS, Rhoades and Eisenberger (2002) identified three major categories of favorable treatments received by the employee: supervisor support, fairness, and organization rewards and job conditions. These favorable treatments were, in turn, related to beneficial outcomes of the employee: job satisfaction and positive mood, and the organization: organization commitment, job performance, and reduced turnover. Organization support theory has been supported by numerous empirical studies in that POS was significantly and positively related with affective organization commitment (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Panaccio & Vandenberghe, 2009; Stamper & Johlke, 2003), perceived supervisor support (Stamper & Johlke, 2003), reduced role ambiguity and stressors (Panaccio & Vandenberghe, 2009; Rhoades & Eisenberger, 2002; Stamper & Johlke, 2003), job performance (Eisenberger et al., 1990; Eisenberger et al., 2001), job satisfaction (Stamper & Johlke, 2003), job attendance (Eisenberger et al., 1990), employee well-being (Panaccio & Vandenberghe, 2009), training and

development (Rhoades & Eisenberger, 2002), and organization spontaneity (Eisenberger et al., 2001).

Kottke and Sharafinski (1988) expanded the theory by adding the concept of perceived supervisor support (PSS) which is defined as employee global beliefs concerning the extent to which managers and leaders value their contributions and care about their well-being. Since managers and leaders act as agents of the organization, employees perceive their supervisor's favorable orientation to them as a representation of the organization support (Eisenberger et al., 2002; Levinson, 1965). Empirical studies indicated that PSS was significantly and positively related to employee affective commitment to the supervisor, affective commitment to the organization, and reduced turnover (Eisenberger et al., 2002; Stamper & Johlke, 2003; Stinglhamber & Vandenberghe, 2003). It was also found that supervisor POS was significantly and positively associated with their employee PSS and employee PSS was, in turn, significantly and positively related to their POS and job performance (Shanock & Eisenberger, 2006). Gagnon and Michael (2004) also supported the expanded theory by reporting that PSS was significantly and positively related to job satisfaction, organization commitment, and job performance. As supervisor support is regarded as one of the most important components in the organization support theory, managerial coaching as a form of PSS and POS likely reciprocates employee satisfaction to the managers and leaders, commitment to the managers and leaders, satisfaction with the organization, commitment to the organization, satisfaction with work, and job performance.

For the proposed study, organization support theory was used to frame the variables of *managerial coaching behavior*, *satisfaction with manager*, and *organization commitment*. As addressed above, managerial coaching can be regarded as a form of PSS and POS as well as an effective management and leadership behavior in the context of the organization support theory. Since employees perceive management and leadership supportive behaviors as an indication of the organization support (Eisenberger et al., 2002; Levinson, 1965), *managerial coaching* received by employees can reciprocate their *commitment to the organization* as well as *satisfaction with managers and leaders* (Eisenberger et al., 1986; Eisenberger et al., 1990; Eisenberger et al., 2001; Eisenberger et al., 2002; Gagnon & Michael, 2004; Panaccio & Vandenberghe, 2009; Rhoades & Eisenberger, 2002; Stamper & Johlke, 2003) in the social exchange perspective. Organization support theory frames managerial coaching as a way of PSS and POS to motivate and satisfy employees and promote their organization commitment.

Hypothesized Conceptual Model

The identified theories, path-goal leadership, career motivation, and organization support, contributed to the framing of the hypothesized conceptual model (see Figures 2 and 3) for the current study. Path-goal leadership theory was used to frame the variables of *managerial coaching behavior* as an effective management and leadership behavior, *employee satisfaction with work*, *role ambiguity*, *satisfaction with manager*, and *job performance* in the proposed study. Career motivation theory was used to frame the variables of *managerial coaching behavior* as a supervisor and organization support, *employee satisfaction with work*, and *career commitment*. Organization support theory

was used to frame the variables of *managerial coaching behavior* as a form of PSS and POS, *employee satisfaction with manager*, and *organization commitment*.

Path-goal leadership theory framed managerial coaching as an effective management and leadership behavior to motivate and satisfy employees and improve their performance toward designated goal achievement. Since *managerial coaching* has a nature of initiating structure and consideration (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Hamlin et al., 2008; Hargrove, 1995; Peterson & Hicks, 1996), it can predict employee *satisfaction with work*, *reduced role ambiguity*, *satisfaction with manager*, and *job performance* (Ellinger & Bostrom, 1999; Ellinger et al, 2003; Elloy, 2006; Evans, 1970; Hargrove, 1995; House, 1971, 1996; House & Mitchell, 1974; Jackson & Schuler, 1985; Lok & Crawford, 2004; Northouse, 2001; Peterson & Hicks, 1996; Rizzo et al, 1970; Schriesheim & DeNisi, 1981; Spector, 1997; Zemke, 1996).

Career motivation theory framed managerial coaching as a supervisor and organization support as well as an effective management and leadership behavior for employee career development. *Managerial coaching* includes goal setting and action planning, feedback, learning, and empowerment (Ellinger & Bostrom, 1999; Evered & Selman, 1989; Hamlin et al., 2008; Hargrove, 1995; Peterson & Hicks, 1996) and these practices can increase employee *satisfaction with work* and *career commitment* (Aryee & Tan, 1992; Ellinger & Bostrom, 1999; Ellinger et al., 2003; Hamlin et al., 2008; London, 1983, 1988, 1993; Noe et al., 1990).

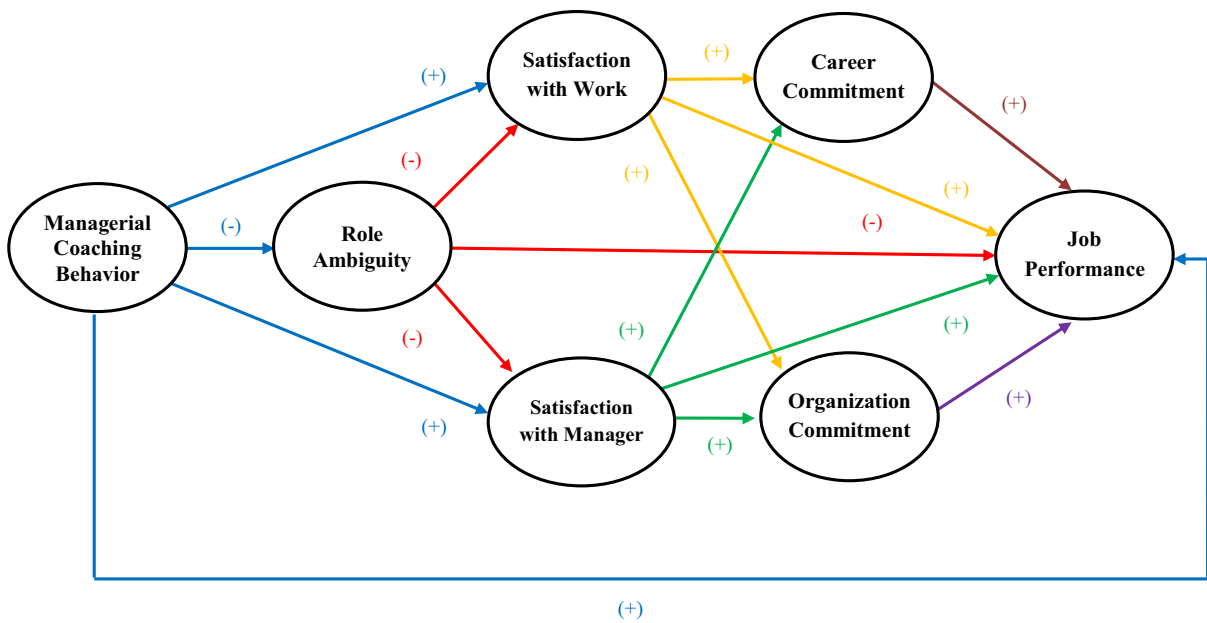


Figure 3. Conceptual model of managerial coaching outcomes.

Organization support theory framed managerial coaching as a form of PSS and POS. *Managerial coaching* received by employees can generate employee *satisfaction with manager* and reciprocate employee *commitment to the organization* (Eisenberger et al., 1986; Eisenberger et al., 1990; Eisenberger et al., 2001; Eisenberger et al., 2002; Gagnon & Michael, 2004; Panaccio & Vandenberghe, 2009; Rhoades & Eisenberger, 2002; Stamper & Johlke, 2003) in the social exchange view.

I developed the hypothesized conceptual model (see Figure 3) based on the aforementioned. In the hypothesized model, I suggest structural relationships between and among *managerial coaching behavior* and employee affective and performance-related outcomes, *satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment*. Each of the variables included in the model for the current study is discussed in the following sections. The details of the hypothesized structural relationships between and among the variables are provided as well.

Managerial Coaching

In this section, the origins, the definitions and characteristics, the perspectives, and the processes, and the competencies of managerial coaching are addressed. Outcomes of managerial coaching to be explored in the study follow. Hypothesized relationships between managerial coaching and the outcome variables in the current study are also provided.

Origins of Coaching

According to Evered and Selman (1989), the word “coaching” was first used in sports in the 1880s. Coach refers to a trainer or leader for players and, in general, having a coach in sports is understood as a means by which to produce performance improvement. Coaches are used for individual players to improve individual performance in tennis, golf, skiing, and skating or for team players to develop team performance in basketball, football, soccer, and rowing. Over the century, coaching has become a common individual and team leadership role in virtually all organized sports.

The advantages of receiving on-the-job coaching were noticed by business managers and organizations in the 1950s (Evered & Selman, 1989). Employees who received coaching appeared to outperform employees who did not. High performing individuals and teams with coaches produced more effectively so coaching could be translated to high productivity and profits of individuals and teams in organizations. Originating from sports coaching, coaching came to be a part of a business managers’ responsibility and more recognized as a training technique for employee and management development in HRD related literature since 1980.

Definitions of Coaching

Coaching in organizations has been defined from slightly different views of

management and HRD practitioners and researchers. Fournies (1987) identified that coaching as a process for *improving problematic work performance* and Evered and Selman (1989) stated that coaching is a communication-focused managerial activity to *empower individuals and teams to produce results*. Hargrove (1995) argued that coaching is about interacting with “coachees,” or employee recipients of coaching, to *help them learn*. Peterson and Hicks (1996) referred to it as the regular, continuous process of *equipping employees to develop themselves more effective*. Recently, Ellinger et al. (2010) conceptualized it as specific managerial actions and behaviors that *enable employees to learn and improve performance*. In addition, Kilburg (1996) defined that coaching, especially executive coaching, is a helping relationship with behavioral techniques to support coachees to *achieve a mutually identified set of goals to improve their professional performance and personal satisfaction and, consequently, the effectiveness of their organization*. More exclusive definitions of coaching are provided in Table 1 (listed chronologically).

Table 1
Coaching Definitions

Author	Definition
Allenbaugh (1983)	Coaching is defined as an ongoing, face-to-face process on influencing behavior by which the manager and employee collaborate to assist in achieving: increased job knowledge; improved skills in carrying out job responsibilities; a higher level of job satisfaction; a stronger, more positive working relationship; and opportunities for personal and professional growth.
Fournies (1987)	[Coaching is] a process for improving problem work performance.
Evered and Selman (1989)	Coaching...refers to the managerial activities of creating, by communication only, the climate, environment, and context that empower individuals and teams to generate results.
Orth, Wilkinson, and Benfari (1987)	Coaching...is a day-by-day, hands-on process of helping employees recognize opportunities to improve their performance and capabilities.
Popper and Lipshitz (1992)	Coaching... [is] a process of creating a culture of development, an atmosphere of learning. It has two components: improving of performance at the skill level; and, establishing relations allowing a coach to enhance his trainee's psychological development.
Mink, Owen, and Mink (1993)	Coaching is the process by which one individual, the coach, creates enabling relationships with others that make it easier for them to learn.
Corcoran, Petersen, Baitech, and Barrett (1995)	[Coaching in a sales organization is] a sequence of conversations and activities that provides ongoing feedback and encouragement to a sales person or sales team member with the goals of improving that person's performance.
Parsloe (1995)	Coaching is a process that enables learning and development to occur and performance to improve.
Hargrove (1995)	Coaching is about interacting with people in a way that teaches them to produce often spectacular results in their business. Coaching is about challenging and supporting people, giving them the gift of your presence.

Table 1 (continued)

Author	Definition
Staniforth and West (1995)	Coaching [is] managing day-to-day interactions and processes.
Peterson and Hicks (1996)	Coaching is the process of equipping people with the tools, knowledge, and opportunities they need to develop themselves and become more effective.
Veale and Wachtel (1996)	[Coaching is] an interaction that has the purpose of enhancing performance. By providing goals, techniques, practice and feedback, the coach helps the person increase competence and the probability of success.
Krazmien and Berger (1997)	Coaching is the ongoing process of assessing employee performance and providing constructive feedback for the purpose of clarifying performance standards and motivating employees to improve current job performance.
Burdett (1998)	Coaching is, exclusively, a process focusing on enhanced performance.
Clutterbuck (1998)	Coaching is a pragmatic approach to help people manage their acquisition or improvement of skills and can be either directive or non-directive.
Hudson (1999)	A coach is a person who facilitates experiential learning that results in future-oriented abilities and who is trained and devoted to guiding others into increased competence, commitment and confidence.
Redshaw (2000)	[Coaching is] systematically increasing the capability and work performance of someone by exposing him or her to work-based tasks or experiences that will provide the relevant learning opportunities, and giving guidance and feedback to help him or her to learn from them.
Kampa-Kokesch and Anderson (2001)	Coaching is a form of systematic feedback intervention aimed at enhancing professional skills, interpersonal awareness, and personal effectiveness.
Rosinski (2003)	Coaching [is] the art of facilitating the unleashing of people's potential to reach meaningful, important objectives.

Table 1 (continued)

Author	Definition
Grant and Cavanagh (2004)	Professional coaching is a theoretically grounded, systematic, goal-directed process designed to facilitate sustained change and foster the on-going self-directed learning and personal growth of the coachee and is aimed and skills development, performance enhancement, and personal development.
Luecke (2004)	Coaching is an interactive process through which managers and supervisors aim to solve performance problems or develop employee capabilities.
de Haan and Burger (2005)	Coaching is a method of work-related learning which relies primarily on one-to-one conversations.
Meggison and Clutterbuck (2005)	Coaching relates primarily to performance improvement (often over the short term) in a specific skills area.
Grant (2006)	Coaching is a collaborative solution-focused, results-oriented and systematic process in which the coach facilitates the enhancement of performance, life experience, self-directed learning, and personal growth of individuals and organizations.
Ellinger et al. (2010)	[Coaching is] provided by a supervisor or manager serving as a facilitator of learning. The manager or supervisor enacts specific behaviors that enable the employee (coachee) to learn and develop, and thereby improve performance.
International Coaching Federation (2010)	[Coaching is] partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential.

Note. Bold letters indicate intended outcomes of coaching.

Increasing Calls for Coaching

Organizations use coaching for a wide range of developmental purposes. They apply coaching for performance improvement, employee career development, management and leadership development, strategy development, and organization change (Ellinger et al., 2003; Goldsmith & Lyons, 2006; Hamlin et al., 2008; Kampa-

Kokesch & Anderson, 2001; McLean et al., 2005; Peterson & Hicks, 1996; Rothwell et al., 1995). In most cases, one of the main reasons for using coaching is because organizations can customize a systematic intervention with specific behavioral objectives for individuals or teams in daily organization contexts (Goldsmith & Lyons, 2006; Hargrove, 1995).

Coaching appears to attract organizational members by providing a more flexible schedule for learning and development rather than traditional classroom training intervention does. Also, coaching may allow employees to get support from experienced managers for learning a new job or role, to solve difficult work problems with advices of subject expert managers, and to further organization effectiveness as a learning organization (Ellinger & Bostrom, 1999; Kampa-Kokesch & Anderson, 2001; Peterson & Hicks, 1996). In addition, organizations employ professional consultants of executive coaches from outside to develop significant individuals, executive team building, succession management, and strategic planning (Bennett, 2006; Berman & Bradt, 2006; Feldman, 2005; Joo, 2005; Kombarakaran, Yang, Baker, & Fernandes, 2001; Morgan, Harkins, & Goldsmith, 2005; Plunkett, Egan, & Garza, 2004; Wasylshyn, Gronsky, & Hass, 2006). Increasing calls for coaching in organizations show that coaching is becoming a primary focus of employee, management and leadership, and organization development efforts.

Coaching in the Context of HRD

Training and development, along with OD and career development, is one of the three main areas in HRD (McLagan, 1989). McLagan claimed that training and

development “focuses on identifying, assuring, and helping develop, through planned learning, the key competencies that enable individuals to perform current or future jobs. Training and development’s primary emphasis is on individuals in their work roles. The primary training and development intervention is planned individual learning, whether accomplished through training, on-the-job learning, coaching or other means of fostering individual learning” (p. 7).

As McLagan identified coaching as a means of individual learning and development in her *models for HRD practices*, coaching can be positioned as a contemporary method within the HRD framework. Coaching, however, is different from traditional training since coaching is flexible and process oriented, rather than structured and pre-determined by trainers (Clegg, Rhodes, & Kornberger, 2003; Grant, 2001; Redshaw, 2000). Coaching does not usually have pre-arranged curricular or agenda controlled by coaches or HRD practitioners (Wright, 2005). Moreover, coaching occurs in the workplace through experiential and collaborative learning of work assignments, rather than in the classroom through sole lecturing and instruction.

Henderson (2005) reported the findings of a survey of members in the OD and Change Division of the *Academy of Management*. The survey findings were that the top seven foundational competencies in OD and Change include: coaching, problem solving, collaborative work, communication, conceptualizing, presentation and education, and project management. Minahan (2006) reported that manager’s role as a coach of employees has been discussed and reported by *OD Network* members since the late 1980s. He argued that OD practitioners cannot succeed in their OD projects without

coaching managers and leaders effectively. McLean et al. (2005) also stated that coaching is one of the key intervention techniques for conducting successful OD. Here again, coaching is perceived as one of the important HRD competencies, especially for OD practices.

As coaching and HRD are often identified as sharing key values of collaborative, action learning, learner-centered, participative, and empowerment, coaching becomes more perceived as a critical HRD method in these days (Hamlin et al., 2008; Peterson & Hicks, 1996; Rigg, Stewart, & Trenhan, 2007). Coaching is also similar to HRD in that both pursue interrelated purposes and goals: performance improvement; individual and organizational effectiveness; behavioral change; enhancing individual and organizational learning; developing knowledge, skills, and competencies; and enhancing human potential and personal growth (Hamlin et al., 2008). Therefore, coaching has been positioned within HRD and is considered to be an essential HRD method for organization and individual development.

Classification of Coaching

Counseling, mentoring, and coaching are terms which are often used interchangeably. Executive coaching is also frequently used in place of managerial coaching without differentiation. However, several researchers and practitioners distinguished one from the other (Auerbach, 2001; Hargrove, 1995; Hamlin et al., 2008; Hart, Blattner, & Leipsic, 2001; Kilburg, 1996; Park, 2007; Passmore, 2007; Wright, 2005). Similarities and differences of these developmental interventions are addressed below.

Coaching and counseling. Coaching is distinguished from counseling in that coaching aims at developmental outcomes, while counseling purposes more remedial outcomes (Hart et al., 2001). Although both interventions intend to increase self-awareness through a systematic reflection and often occur in a one-to-one conversation situation, coaching focuses on the present and the future of employees or coachees and takes an alternative collaborative relationship while counseling focuses more on the past of employees or counselees and takes a traditional expert-client relationship (Auerbach, 2001; Kilburg, 1996; Wright, 2005). Coaching is more structured and task- and behavior-oriented than counseling and increasingly regarded as one of the critical components for successful HRD in organizations (Hamlin et al., 2008; McLean et al., 2005).

Coaching and mentoring. Similar to coaching, mentoring is a one-to-one developmental relationship (Kram, 1985). However, coaching occurs in a short-term period, usually less than one year while mentoring is a long-term process (Passmore, 2007). In some cases, mentoring may be an enduring, personal relationship through the lifespan. A coach can be process oriented rather than content oriented and typically be found as a manager within employee or coachee team or division (Ellinger, 1999; Wright, 2005). On the other hand, a mentor is more a content expert, who has spent years in a specific area either in or outside of the employee or protégé's organization thus, can pass knowledge, skills, and experiences (Kram, 1985). Mentoring aims to provide career and psychosocial supports. But, coaching targets to produce immediate

performance improvement by helping individuals and teams develop through feedback immediacy.

Managerial coaching and executive coaching. Coaching practice can be found as either a part of the managers' responsibility in organizations or an independent job for professional consultants (Ellinger et al., 2003; Hamlin et al., 2008; Kilburg, 1996).

These two appear to be termed as managerial coaching and executive coaching, respectively. Most of all, there are differences in populations who receive and provide coaching between the two (Park, 2007; Passmore, 2007). Managerial coaching is offered to lower and middle level employees while executive coaching tends to be provided to senior and executive level employees in organizations. Managerial coaches are traditionally from within the organization and executive coaches usually come from external consulting firms. Organizations use executive coaching in order to utilize a specialized learning and training service, bring in an experienced subject matter expert, and protect the confidentiality of senior and executive level employees in their organization (Goldsmith & Lyons, 2006; Kampa-Kokesch & Anderson, 2001). For the current study, I focus on managerial coaching in organizations.

Processes of Managerial Coaching

For managers and leaders in organizations, coaching has been frequently emphasized as a key managerial and leadership competency (Allenbaugh, 1983; Boyatzis, Smith, & Blaize, 2006; Burdett, 1998; Ellinger & Bostrom, 1999; Geber, 1992; Graham, Wedman, & Garvin-Kester, 1993; Hamlin & Serventi, 2008; Hamlin et al, 2006; Longenecker & Neubert, 2005; Orth et al., 1990; Peterson & Hicks, 1996), and refers to

a full scale managerial leadership process, rather than a simplified linear activity, individually tailored to lead employees toward unleashing excellence and maximizing their potentials (Case & Kleiner, 1992; Krazmien & Berger, 1997). While managers and leaders express their old role with words of director, scheduler and decider, task assigner, and policeman, they describe their new role as coach, facilitator, delegator, strategizer, trainer, and intermediary (Allenbaugh, 1983; Evered & Selman, 1989; Geber, 1992; Macneil, 2001; Phillips, 1996; Veale & Wachtel, 1996; Peterson & Hicks, 1996). Managers appear to practice their new role of coach somewhat differently, depending on their subjective contexts of employees and organization. Managerial coaching processes practiced and/or suggested by management and HRD practitioners and scholars are provided in Table 2 (listed chronologically).

Table 2
Managerial Coaching Processes

Author	Process
The Woodlands Group (1980)	(1) Set challenging tasks, (2) clearly state, (3) counsel, (4) appraise regularly and objectively, and (5) give positive feedback and reinforcement
Allenbaugh (1983)	Clarifying employee functions, authority, responsibilities, and expectations (FAREs) on on-going basis: (1) employee self-evaluation: job functions, responsibilities, authority, and priority, (2) meeting with supervisor: getting agreements on employee self-evaluation and performance goals, and (3) implementation: trial adoption, feedback, formal adoption, and revising the developmental plan
Tyson and Birnbrauer (1983)	(1) Performance analysis, (2) job analysis, (3) feedback to coachee, (4) contract with coachee, (5) development plan, and (6) coaching sessions
Laird (1985)	(1) Analyze the task, (2) tell the learner how to do the task, (3) show the learner how to do the task, (4) let the learner do the task, and (5) review the learner's work
Stroul (1988)	(1) Develop a working theory, (2) conduct initial meeting to propose working on development, (3) review possible development priorities, (4) review proposed developmental plans, and (5) follow-up
Howell (1991)	(1) Goal setting, (2) train employees, (3) build relationships, (4) principles of motivation, (5) monitor performance, and (6) provide feedback
Popper and Lipshitz (1992)	(1) Identify and define clear parameters of success, (2) build and structure situations which have potential for success, (3) identify factors which lead to success, and (4) identify inner sources of success
Prochaska, DiClemente, and Norcross (1992)	Five stages to change: (1) pre-contemplation, (2) contemplation, (3) preparation, (4) action, and (5) maintenance
Whitmore (1992)	The GROW model: (1) establish the goal, (2) examine current reality, (3) explore the options, and (4) establish the will
Darling (1994)	(1) Setting aside time for coaching work, (2) ask questions to better understand, (3) keep a long-term perspective, and (4) be a committee partner

Table 2 (continued)

Author	Process
Peterson and Hicks (1996)	(1) Forge a partnership, (2) inspire commitment, (3) grow skills, (4) promote persistence, and (5) shape the environment
Phillips (1996)	(1) Observation, (2) analysis, (3) ability to structure the coaching process for the learner in question, (4) questioning, (5) listening, (6) giving and receiving feedback, (6) communicating, and (5) motivating
Krazmien and Berger (1997)	(1) Observe and assess employee performance, (2) engage in the coaching conversation, and (3) monitor the employee progress and provide frequent, timely feedback
Burdett (1998)	(1) Managing expectations: the game plan, (2) monitoring performance: watching the play, and (3) giving feedback: time out
Zeus and Skiffington (2000)	(1) Observe and monitor behavior, (2) analyze and hypothesize about possible causes, (3) give feedback, and (4) reward and enhance skills or problem solving to build new skills
Colombo and Werther, Jr. (2003)	(1) Understanding strategic environment, (2) employee capability assessment, and (3) developing development strategy
Rosinski (2003)	(1) Conducting assessment – coachee's self-assessment and others' expectations, (2) articulating target objectives, and (3) progressing toward target objectives
Luecke (2004)	(1) Preparation, (2) discussion, (3) active coaching, and (4) follow-up
de Haan and Burger (2005)	(1) Intake and establishment of a coaching contract, (2) building and maintaining the relationship, (3) raising awareness, (4) refining the contract, (5) facilitating change, (6) integration, review, and evaluation, and (7) closure

Available articulations of the managerial coaching process appear to have key commonalities, although coaching transcends a formulaic and structured method (Case & Kleiner, 1992; Krazmien & Berger, 1997). First, managers and leaders set aside time

for the coaching work. They collaborate to set challenging goals with employees. Managers clearly communicate their expectations and progress toward the established goals. Ideally, they offer resources and remove environmental barriers in the path to the employee, team, and organization goals. Finally, managers appraise the developmental progress of employees and provide feedback regularly and objectively. In conclusion, management and leadership feedback guides employee performance improvement, reinforces and maximizes their strengths and potentials and ultimately, helps employees and teams achieve the established goals in organizations.

Competencies of Managerial Coaching

A competency is defined as “an underlying characteristics of a person which results in effective and/or superior performance on the job” (Klemp, 1980, p. 21) and more specifically, characterized as “a cluster of related knowledge, skills, and attitudes that affects a major part of one’s job (a role or responsibility)” (Parry, 1996, p. 50). The process of managerial coaching requires several competencies for the successful practice of managerial coaching.

A rich interpersonal relationship between the manager and the employee is one of the critical competencies of managerial coaching, since the effectiveness of managerial coaching appears to depend on openness, participation, and willingness of the employee, as executive coaching does (Auerbach, 2001; Hargrove, 1995; Kilburg, 1996). McLean and his associates (2005) argued that open communication, valuing people over task, tolerance to ambiguity, and team approach are essential competencies for managerial coaching, and Park (2007) added facilitating employee development as

another key competency. Ellinger and her colleagues (2003) described that important coaching skills are personalizing learning situations, broadening employee perspectives, allowing employees to think through issues, stepping into employee shoes, being a resource for employee development, and providing and seeking feedback from employees. Besides, active listening, empowering, trusting, empathy, patience, non-judgmentalism, and emotional maturity are often listed as desirable characteristics for the successful managerial coaching practice (Beattie, 2002; Bielous, 1994; Evered & Selman, 1989; International Coaching Federation, 2008; Peterson & Hicks, 1996; Stowell, 1988; Wenzel, 2000). Managerial coaching competencies identified by scholars and practitioners are presented in Table 3 (listed chronologically).

Table 3
Managerial Coaching Competencies

Author	Competency
The Woodlands Group (1980)	Ability to develop rich interpersonal relationships
Allenbaugh (1983)	(1) Observation, (2) analysis, (3) working through, (4) channeling, (5) delegating, and (6) giving feedback
Tyson and Birnbrauer (1983)	(1) Unselfish interest in helping, (2) listening, (3) belief that people can change and improve, (4) ability to lead, (5) skills in encouraging others, (6) providing direction, (7) earning and maintaining respect, (8) orientation toward practice, and (9) ability to learn from mistakes
Leibowitz, Kaye, and Farren (1986)	(1) Skillful listening, (2) skillful questioning, (3) respectful of others, (4) trustworthy, and (5) openness with information
Orth et al. (1987)	(1) Observational skills, (2) analytical skills, (3) interviewing skills, and (4) feedback skills

Table 3 (continued)

Author	Competency
Stowell (1988)	(1) Orientation toward partnership, (2) orientation toward collaboration, (3) concern toward employee needs, (4) empathy, (5) patience, (6) supportive and caring, and (7) clear and direct
Evered and Selman (1989)	(1) Partnership and relationship, (2) commitment to results and vision, (3) compassion, non-judgmental acceptance, (4) speaking and listening for action, (5) responsiveness of the player to the coach's interpretation, (6) honoring uniqueness, (7) practice and preparation orientation, (8) willingness to coach, (9) willingness to go beyond what is already achieved, and (10) responsive player
Schelling (1991)	(1) Communicate clear performance objectives, (2) provide regular performance feedback, (3) consider all relevant information when appraising performance, (4) observe performance with the client, (5) know employees well enough to help them develop self-improvement plans, (6) recognize and reward high performance, (7) provide help, training, and guidance, and (8) build a warm, friendly relationship
Geber (1992)	Questioning
Popper and Lipshitz (1992)	(1) Listening, (2) explaining, (3) demonstrating, and (4) imitating; a. great devotion to their profession, b. strong wish to excel, c. non-punitive approach, d. not taking the credit for success, e. direct and down-to-earth speaking, and f. feedback
Prochaska, DiClemente, and Norcross (1992)	(1) Awareness of individual's place in change process, (2) patience, and (3) understanding how to help move the individual toward readiness to change
Good (1993)	(1) Listening skills, (2) ability to identify areas for development, and (3) providing feedback
Graham et al. (1994)	(1) Identify clear performance expectations, (2) provide accurate feedback, (3) offer suggestions when working with clients, and (4) developing warm working relationships with subordinates
Bielous (1994)	(1) Know the subject at hand, (2) communication skills, (3) patience, (4) trust building, (5) follow-up, and (6) courage
Staniforth and West (1995)	(1) Active listening, (2) reflective listening, (3) recognizing and revealing feeling, and (4) positive feedback

Table 3 (continued)

Author	Competency
Peterson and Hicks (1996)	(1) Listening skills, (2) build trust, (3) non-judgmental understanding, (4) patience, (5) focus, (6) adaptability and cognitive flexibility, (7) intelligence, ability to learn, (8) willingness to learn, non-defensiveness, (9) developmental orientation and self-awareness, and (10) understanding of human behavior
Katz and Miller (1996)	(1) Approach as a partnership, (2) vision of organizational system, (3) self-assurance; lack of desire to be leader, (4) contribute information, knowledge without requiring they be used, (5) listen effectively, (6) ability to ask constructive, data gathering questions, (7) create a safe environment, (8) find strategic links to organizational goals, (9) open-mindedness, and (10) willing to take risks and learn into discomfort
Zemke (1996)	(1) Helping focus on performance constantly honing employees' skills, (2) building teamwork, (3) evaluating circumstances and adjust to them, and (4) reinforcing and motivating
Cohen and Tichy (1997)	(1) Leadership skills, (2) teachable, and (3) systems orientation; creating a teaching culture
Rich (1998)	(1) Supervisor feedback, (2) role modeling, and (3) trust and respect
Ellinger and Bostrom (1999)	(1) Providing feedback to employee, (2) soliciting feedback from employees, (3) working it out together – talking it through, (4) creating and promoting a learning environment, (5) setting and communicating expectations – fitting into the big picture, (6) stepping into other's shoes to shift perspectives, (7) broadening employee's perspectives – getting them to see things differently, (8) using analogies, scenarios, and examples, (9) engaging others to facilitate learning, (10) question framing to encourage employees to think through issues, (11) being a resource – removing obstacles, (12) transferring ownership to employees, and (13) holding back – not providing the answers
Wenzel (2000)	(1) Analyzing issues, (2) leading courageously, (3) building relationships, (4) listening to others, (5) cognitive abilities, assertiveness, (6) sociability, and (7) empathy

Table 3 (continued)

Author	Competency
Zeus and Skiffington (2000)	(1) Self-awareness, (2) verbal communication, (3) goal setting and articulating a vision, (4) managing individual decisions, (5) motivating and influencing others, (6) building teams, (7) defining and solving problems, (8) delegating, (9) managing time and stress, and (10) managing conflict
Beattie (2002)	(1) Caring, (2) informing, (3) being professional, (4) advising, (5) assessing, (6) thinking, (7) empowering, (8) developing others, and (9) challenging
Talarico (2002)	(1) Focus on people: employee retention, ongoing development of communication and relationship skills, support of employees through their challenges, and sensitivity to organizational changes, (2) focus on work environment: service orientation, mutual respect, and mutual success, and (3) focus on work: performance expectations, accountabilities, empowerment, and experiences to emulate
Ellinger et al. (2003)	(1) Personalizing learning situations, (2) broadening employee's perspectives, (3) question framing to encourage employees to think through issues, (4) stepping into other's shoes to shift perspectives, (5) providing feedback to employee, (6) soliciting feedback from employees, (7) being a resource, and (8) setting and communicating goals and expectations
de Haan and Burger (2005)	(1) Listening skills: identifying with coachees' problem, (2) intervention management: encouraging coachees to find new perspectives and solutions, (3) organization management: exposing links between problems and organizational context, and (4) psychological understanding: exploring and raising coachees' interaction during the conversation
McLean et al. (2005)	(1) Open communication, (2) valuing people over task, (3) ambiguous nature of the working environment, and (4) team approach
Megginson and Clutterbuck (2005)	(1) Establishing and managing the relationship, (2) setting goals, (3) clarifying and understanding situations, (4) building self-knowledge, (5) understanding other people's behavior, (6) dealing with roadblocks, (7) stimulating creative thinking, (8) deciding what to do, (9) committing to action, (10) managing the learner's own behavior, (11) building support, influence, and learning, (12) ending the relationship, and (13) developing your own techniques

Table 3 (continued)

Author	Competency
Longenecker and Neubert (2005)	(1) Clarify what results or performance outcomes are needed or desired, (2) provide honest, ongoing, balanced performance feedback, (3) impart feedback based on an accurate assessment of performance (4) know employee strengths and weaknesses, (5) offer expert advice on performance improvement, (6) develop a working relationship based on mutual benefit and trust (7) understand the context, pressure, and demands of the employee job, (8) support employee in solving work problems, (9) help employee prioritize and stay focused, and (10) create accountability for performance improvement
Noer (2005)	(1) Assessing, (2) challenging, and (3) supporting
Heslin, VandeWalle, and Latham (2006)	(1) Guidance, (2) facilitation, and (3) inspiration
Park (2007)	(1) Open communication, (2) team approach, (3) value people, (4) accept ambiguity, and (5) facilitate development
International Coaching Federation (2008)	(1) Meeting ethical guidelines and professional standards, (2) establishing the coaching agreement, (3) establishing trust and intimacy with coachees, (4) coaching presence, (5) active listening, (6) powerful questioning, (7) direct communication, (8) creating awareness, (9) designing actions, (10) planning and goals settings, and (11) managing progress and accountability

Note. Adapted from Wenzel (2000) and Park (2007).

Outcomes of Managerial Coaching

Benefits of managerial coaching have been addressed by many practitioners and scholars in management and HRD literature, especially popular training and organization development magazines and white papers. Satisfaction with work is often identified as a potential outcome of managerial coaching (Ellinger et al., 2003; Elloy, 2006; Lok & Crawford, 2004). Role ambiguity is also likely to be one of the expected outcomes of managerial coaching (Ellinger & Bostrom, 1999; House, 1996; Jackson & Schuler,

1985). Coaching also has been linked to satisfaction with manager, career commitment, job performance, and organization commitment (Carless & Bernath, 2007; Evered & Selman, 1989; Goulet & Singh, 2002; Ellinger & Bostrom, 1999; Ellinger et al., 2003; Fileds, 2002; Hargrove, 1995; House, 1996; Jackson & Schuler, 1985; Kottke & Sharafinski, 1988; London, 1983, 1993; Meyer & Allen, 1997; Noelker, Ejaz, Mnne, & Bagaka, 2009; Northouse, 2001; Park, 2007; Rhoades & Eisenberger, 2002; Spector, 1997; Tubre & Collins, 2000; Zemke, 1996). However, there are few studies that have addressed how managerial coaching brings about these outcomes.

Although many assumed there would be positive outcomes of managerial coaching, empirical studies on the impact of managerial coaching are still rare (Ellinger et al., 2003; Kilburg, 1996; Park, 2007). Some investigated the outcomes of executive coaching programs, such as sustained behavioral changes, skill improvement, and effective management and leadership development (Smither, London, Flautt, Vargas, & Kucine, 2003; Wasylyshyn, 2003).

There are a few studies existing on managerial coaching outcomes. Ellinger (1999) reported some of the findings from her larger qualitative critical incident study. Exemplary managers of learning facilitators were recommended from five learning organizations, which were selected in a casebook published by the *American Society of Training and Development*. Twelve middle and senior managers were interviewed for their effective and/or ineffective critical incidents which they considered themselves facilitating employee learning. Outcomes of managerial coaching were addressed in three levels: learners, managers, and organization. Some of the outcomes found in the

study were learning what works, strengthening relationships, cost savings, improved systems, and sharing knowledge.

Ellinger et al. (2003) empirically examined the linkage between managerial coaching behavior and employee outcomes in a distribution industry. Two surveys were administered in their study: one survey conducted with line managers included the managerial coaching behavior measure along with the employee job performance measure; and the other survey conducted with warehouse employees contained the managerial coaching behavior measure along with the global job satisfaction measure. A total of 438 employees and 67 line managers completed those surveys. Findings indicated that the managerial coaching behavior was positively associated with employee job satisfaction and warehouse performance.

Park (2007) studied the impact of managerial coaching on employees in a technology organization. The author revised the managerial coaching instrument initially designed by McLean et al. (2005) by adding a dimension of facilitating others' development. One hundred eighty seven employees from a technology organization completed the survey. Study findings indicated that managerial coaching was positively correlated with employee personal learning and organization commitment, while managerial coaching was negatively correlated with employee turnover intention.

Hagen (2008) conducted another outcome study of managerial coaching in the Six Sigma context. Two surveys were administered to black belts and their team members. A total of 140 black belts and 176 team members completed the surveys from six organizations. Collected data were analyzed for these two groups. Results indicated

that managerial coaching explained most of the variance in the three dependable variables: team outcome (moral and growth), customer and project outcome (customer satisfaction with the project), and organizational outcome (performance and profitability), for both groups.

Interactions of Managerial Coaching within the Hypothesized Model

For the current study, several benefits were identified as managerial coaching outcomes in organizations. First of all, job performance improvement is almost always identified as the primary potential outcome of managerial coaching (Ellinger et al., 2003; Evered & Selman, 1989; Hargrove, 1995; Zemke, 1996). Next, employees can develop self-awareness by the systematic feedback from managers (Peterson & Hicks, 1996). This effective feedback can help employees clearly understand their goals and responsibility and also, structure paths toward the established goals (Allenbaugh, 1983; Ellinger & Bostrom, 1999; House, 1996). Therefore, reduced role ambiguity (employees better understanding their roles and perceived value to the organization) may be another primary outcome of managerial coaching. Third, managerial coaching influences employee satisfaction. HRD related studies support this identified outcome in that effective, participative management and leadership behavior promotes employee satisfaction with work (Ellinger et al., 2003; Elloy, 2006; Lok & Crawford, 2004). Forth, similarly, the effective management and leadership behavior can increase employee satisfaction with manager (Bass & Bass, 2008; Ellinger & Bostrom, 1999; House, 1996; Noelker et al., 2009; Northouse, 2001). In other words, managerial coaching as an

effective management and leadership behavior may likely influence both employee satisfaction with work and satisfaction with manager.

Therefore, informed by the research and theoretical perspectives outlined above, the hypotheses for this study (also see Figure 3) include:

Hypothesis 1: There will be a significant positive relationship between managerial coaching behavior and employee job performance.

Hypothesis 2a: There will be a significant positive relationship between managerial coaching behavior and employee satisfaction with work.

Hypothesis 2b: There will be a significant negative relationship between managerial coaching behavior and employee role ambiguity.

Hypothesis 2c: There will be a significant positive relationship between managerial coaching behavior and employee satisfaction with manager.

Populations of Managerial Coaching Studies

Managerial coaching has been studied mostly in business or private organizations. Ellinger et al. (2003) conducted their study in a warehouse organization in the distribution industry; Park (2007) examined the advantages of managerial coaching in a technology business organization; and Hagen (2008) employed six business organizations to examine managerial coaching outcomes in the Six Sigma context.

For the current study, a government organization was selected as the participating organization; TEEEX, the population, has approximately 1,400 employees and is internationally recognized as one of the largest providers of workforce training in the United States (TEEX.com). No study of managerial coaching outcomes in the government organization context was identified, although there were a few studies conducted in business organizations as addressed in the above. Employing another,

different type of organization rather than business may provide insight to invariance or dynamics of managerial coaching practices and outcomes in the various organization contexts.

Outcome Variables for the Study

Included in this section are the selected outcomes of managerial coaching used in this study: *employee satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment* (see Figure 3).

Definition, antecedents, correlates, and consequences, and some important studies are introduced for each outcome variable. Potential relationships between and among managerial coaching and employee outcomes in organizations are suggested.

Role Ambiguity

The first potential outcome of managerial coaching to be explored in the study is employee role ambiguity. Role ambiguity, along with role conflict, has attracted researchers' attention since it has been identified as a key factor for effective team and organization functioning. Especially, the impact of role ambiguity on employee satisfaction and job performance has prompted much interest among management and organizational researchers (Jackson & Schuler, 1985; Rizzo et al., 1970; Spector, 1997; Tubre & Collins, 2000).

Definition of role ambiguity. Role state is discussed in terms of role ambiguity and role conflict. Role ambiguity is defined as the "lack of necessary information regarding role expectation for a given organizational position" (Rizzo et al., 1970, p. 151), while role conflict is defined as the condition of when subordinates have

incompatible roles identified by a manager. Role ambiguity is identified as a state of employee cognition to their role in this study. Although role expectations are associated with various job tasks, researchers differentiate employee role from their job task, as with the earlier, role, being a set of expected behaviors while performing the job task (Ilgen & Hollenbeck, 1991; Tubre & Collins, 2000). Hence, employee role behaviors not identified in a specific job task can be still expected by the manager or organization. Role ambiguity and conflict are often regarded as factors to cause job stress in organizations (Spector, 1997). These two are closely related, but distinct concepts (Harris & Bladen, 1994; Netemeyer, Johnston, & Burton, 1990). For the current study, only role ambiguity was employed.

According to role theory, employees have to know 1) what the expectations of their role are, 2) what behaviors, skills, and knowledge will fulfill their role responsibilities, and 3) what the consequences of their role performance are to self, others, and the organization (Kahn et al., 1964). Role ambiguity affects employees in organizations, because lack of role clarity can increase employee stress in dynamic, complex work environments (Fried, Ben-David, Tiegs, Avital, & Yeverechyahu, 1998; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Rizzo et al., 1970; Tubre & Collins, 2000). When these stressors exceed employee capability to handle, employee work attitudes and performance are likely to deteriorate (Erera-Weatherley, 1996). Role theorists argue that role ambiguity would result in passive stress coping behavior of employees such as avoiding sources of the stress or using defensive mechanisms to the stress (Kahn et al., 1964; Rizzo et al., 1970). These passive employee reactions to the

stress may distort the reality of employee role state. Therefore, role in organizations needs to be clearly identified and explicitly known to employees to reduce their job stress as well as increase organization effectiveness.

The formal study of role state in organizations began in the late 1940s in the conceptual works of Merton (1949), Parsons (1951), and Newcomb (1950), and further expanded by Levinson (1959) and Katz and Kahn (1966). Kahn et al. (1964) conducted one of the earliest empirical studies and provided the practical underpinning for the later works on role state. Other early researchers, such as Seeman (1953), Smith (1957), Wispe and Thayer (1957), and Gross, Mason, and McEachern, (1958), also inspired later role state researchers. In 1970, influenced largely by Kahn et al. (1964), Rizzo et al. (1970) reported their first role state study that became the groundwork for most of the later studies on role ambiguity and conflict. Their measure of role ambiguity and conflict has been widely used by later management and organizational researchers (Abramis, 1994).

Antecedents, correlates, and consequences of role ambiguity. Several researchers conducted meta-analysis studies on role ambiguity and work and organization-related outcomes, although their results were neither always clear nor consistent. Fisher and Gitelson (1983) applied a meta-analysis of 43 studies reported in business and social science literature from 1970 to mid-1981. Findings revealed that role ambiguity is negatively correlated to organization commitment, job involvement, satisfaction with co-workers, and satisfaction with promotion, boundary spanning, tenure,

education, and age. They also found that these correlations are mediated by respondent job type (lower, professional, and managerial).

Jackson and Schuler (1985) conducted a meta-analysis study of 96 articles on role ambiguity. Results revealed that role ambiguity is negatively correlated with 1) organizational context components: feedback, task identify, autonomy, leader initiating structure, leader consideration, participation, formalization, and level, 2) individual characteristics: tenure, age, education, and self-esteem, 3) affective reactions: general satisfaction, satisfaction with supervision, satisfaction with work itself, satisfaction with co-workers, satisfaction with pay, satisfaction with advancement, tension/anxiety, organization commitment, job involvement, and propensity to leave, and 4) behavioral reactions: absence, others' ratings of performance, and self-ratings of performance.

Abramis (1994) examined 88 articles for his meta-analysis of role ambiguity. He found that role ambiguity is negatively related to employee satisfaction and job performance. Tubre and Collins (2000) conducted a similar meta-analysis to further examine the relationship between role ambiguity and job performance using a larger sample (11,698). Findings suggested that role ambiguity is negatively related to job performance, and the relationship between these two is moderated by job type (service, clerical and sales, and professional/technical/managerial) and rating source (objective, self-rating, and others' ratings). In similar, Giboa, Shirom, Fried, and Cooper (2008) and Fried, Shirom, Gilboa, and Cooper (2008) reported that role ambiguity is negatively correlated with job performance, and this correlation is mediated by job satisfaction and propensity to leave.

Youngcourt, Leiva, and Jones (2007) reported using a sample of 599 retail service employees that performance feedback can serve as a role definition, administrative, or developmental purpose, and these purposes are antecedents for role ambiguity, job satisfaction, affective commitment, and satisfaction with the performance appraisal. Also, Li and Bagger (2008) reported that role ambiguity is negatively related to self-efficacy, and this relationship between the two is mediated by learning goal orientation and procedure justice. Their data were collected from 165 employees in an architectural firm with offices distributed throughout the U.S.

Yun, Takeuchi, and Liu (2007) administered their survey to 84 working students at two large public universities to investigate the moderating effects of employee role ambiguity and affective organization commitment. They determined that role ambiguity moderates the effects of employee self-enhancement motive on their job performance, and management perceptions of employee affective organization commitment moderate the effects of management organizational citizenship behavior (OCB) on their reward recommendation decisions.

Saks, Uggerslev, and Fassina (2007) analyzed over 30 articles published in the past 20 years on socialization tactics and new employee adjustment, including a role ambiguity variable. Their findings indicated that role ambiguity is negatively related to socialization tactics, and the relationships between role ambiguity and social tactics are stronger for recent graduates compared to other new employees. Role ambiguity was found to mediate some of the relationships between socialization tactics and new employee adjustment.

Dierdorff and Rubin (2007) conducted a study on role ambiguity and carelessness and discriminability in activity descriptor ratings. The authors hypothesized that employees perceiving high role ambiguity provide ratings that are more careless and provide less discriminability in their activity descriptors. This hypothesis was supported by the study data of 203 employees in 73 occupations, although this influence varied across different work descriptions.

Lankau, Carson, and Nielson (2006) investigated the mediating influence of role ambiguity and role conflict on the relationship between employee job attitudes (job satisfaction and organization commitment) and mentoring activities (vocational support, psychosocial supports, and role modeling). Their model was tested by the study sample of 355 protégés who graduated from the college of business management in two universities. They reported that both role ambiguity and role conflict mediates the relationships between perceived psychosocial support and job attitudes as well as between perceived role modeling and job attitude.

Interactions of role ambiguity within the hypothesized model. Based on the role theory, positions in an organization should have a clear set of responsibilities. A manager can provide guidance and employees can be accountable for their performance. If employees do not know what expectations they have from the manager and organization, they cannot be succeeding in their task and relationship with the manager in their organization (Jackson & Schuler, 1985).

Fried et al. (1998) reported that role ambiguity correlates negatively with job performance. Tubre and Collins (2000) also found a negative relationship between role

ambiguity and job performance. It was also shown that dissatisfaction with work can be caused by a high level of role ambiguity (Brown & Peterson, 1993; Fisher & Gitelson, 1983; Jackson & Schuler, 1985). Similarly, DeConinck and Stilwell (2004) and House (1996) stated that role ambiguity is also negatively related to satisfaction with supervision of manager. In their meta-analysis, Fisher and Gitelson (1983) reported that role ambiguity correlated negatively with satisfaction with manager, satisfaction with work itself, overall job satisfaction, and job performance.

This leads the hypotheses (also see Figure 3) related to role ambiguity:

Hypothesis 3a: There will be a significant negative relationship between employee role ambiguity and satisfaction with work.

Hypothesis 3b: There will be a significant negative relationship between employee role ambiguity and job performance.

Hypothesis 3c: There will be a significant negative relationship between employee role ambiguity and satisfaction with manager.

Satisfaction with Work

The second potential outcome of managerial coaching to be explored in the study is employee satisfaction with work. Since employee work attitude is associated with many important work and organization-related outcomes in organizations, the study of employee satisfaction is one of the major domains for management and organizational research. For the current study, I address employee satisfaction with work or job satisfaction as a potential outcome of managerial coaching.

Definition of satisfaction with work. For the current study, satisfaction with work is identified as a type of employee satisfaction. Satisfaction with work refers to employee affective reactions to one's work or job (Cammann et al., 1983; Cranny et al.,

1992) and is commonly defined as individual contentment regarding their current job (Smith, Kendall, & Hulin, 1969). Job satisfaction is simply about how individuals feel about “the job” or “various aspects or facets of the job” (Spector, 1997, p. 2). Locke (1970) addressed task-related values and non-task values as two important dimensions of job satisfaction that employees might seek on their job. Researchers further discovered from decades of studies that job satisfaction has multiple dimensions, such as satisfaction with work nature, satisfaction with internal work motivation, satisfaction with growth, satisfaction with security, satisfaction with pay, satisfaction with promotion, satisfaction with supervision, and satisfaction with peers (Hackman & Oldham, 1974; Porter & Steers, 1973; Smith et al., 1969; Spector, 1997). Among these, satisfaction with work nature can be regarded as a core dimension in global or overall job satisfaction (Bowling & Hammond, 2008; Herzberg, 1966; Locke, 1970), although global job satisfaction may be more than the sum of these dimensions since it represents broader dimensions of the job (Scarpello & Campbell, 1983). It appears, although limited, that satisfaction with work may be used with global job satisfaction, interchangeably (Breugh, 1981; Iaffaldano & Muchinsky, 1985).

Early researchers advocated work or job redesign as a way of promoting job satisfaction, by making employee job more attractive (Herzberg, 1968; Herzberg, Mausner, & Snyderman, 1959). Hackman and Oldham (1976) theorized that employees can be motivated by intrinsic satisfaction in performing their job. When employees find their job to be meaningful and pleasant, they may like their job and in turn, perform their job better. Based on this job characteristic theory, Hackman and Oldham (1975)

developed the Job Diagnostic Survey and it has been used by many researchers to examine the effects of job characteristics on employees (Spector, 1997).

Another group of the early job satisfaction studies was based on the work of Smith and her colleagues (1969). They designed the Job Descriptive Index (JDI) which includes five facets of work, pay, promotion, supervision, and coworkers. The JDI has been carefully developed and validated and widely used by job satisfaction researchers (Cook, Hepworth, Wall, & Warr, 1981). Although the JDI offers several facets of one's job, there has been some criticism that it has limited facets and does not adequately measure employee affect or attitude; rather it assesses employee thoughts (Brief, 1998; Organ & Near, 1985).

Cammann et al. (1983) proposed another job satisfaction scale as a part of the Michigan Organizational Assessment Questionnaire. While the JDI measures specific facets of job satisfaction, Cammann's scale assesses global job satisfaction. Since this alternative scale could provide more general information about employee feelings to their job, many researchers conducted their studies using this scale. For the current study, I employee global job satisfaction as a potential managerial coaching outcome.

Antecedents, correlates, and consequences of satisfaction with work.

Satisfaction with work or global job satisfaction has been identified as an important work and organization-related variable. Job satisfaction can be predicted by demographic characteristics. Brush, Moch, and Pooyan (1987) conducted a meta-analysis of 19 studies. They found that age is positively related to job satisfaction. White and Spector (1987) reported that the relationship between job satisfaction and age can be

explained by favorable job conditions for older employees. It was also observed that this relationship occurs because older employees have higher salary and personal control rather than younger employees do. Meta-analyses did not find that gender is associated with job satisfaction (Brush et al., 1987; Witt & Nye, 1992).

Management and organizational researchers classified environmental variables as antecedents of job satisfaction (Spector, 1997). Traditionally, job redesign, an environmental variable, has been regarded as an effective way to enhance employee job satisfaction (Herzberg, 1968; Herzberg et al., 1959). According to Hackman and Oldham (1976), job characteristics affect employee work attitude in organizations. In their job characteristics theory, the five core characteristics of jobs (skill variety, task identify, task significant, autonomy, and job feedback) are thought to contribute to three psychological states (experienced meaningfulness, experienced responsibility, and knowledge of results). These psychological states lead to job satisfaction in consequence. The relationships between job satisfaction and job characteristics were found to be mediated by growth need strength (Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985).

Role state is another environmental variable to determine job satisfaction. Jackson and Schuler (1985) found that both role ambiguity and conflict are correlated with job satisfaction from their meta-analysis of 96 studies published between 1970 and 1983. It was also reported that antecedents of job satisfaction are informal and formal mentoring (Kram, 1985; Egan & Song, 2008), cognitive restructuring coping style (Welbourne, Eggerth, Hartley, Andrew, & Sanchez, 2007), work-family conflict (Stewrt

& Barling, 1996), workload (Jex & Beehr, 1991), work environment's family supportiveness (Lapierre, Spector, Allen, Poelmans, Cooper, O'Driscoll et al., 2008), organization and work group identification (van Dick, van Knippenberg, Kerschreiter, Hertel, & Wieseke, 2008), goal progress (Duffy & Lent, 2009), and flexible work schedules (Pierce & Newstrom, 1982).

In the mid-1980s, organizational researchers paid increased attention to influences of personality on job satisfaction, although the environment perspective was a main research stream in this domain (Spector, 1997). Several studies reported that predictive personal variables of job satisfaction are affective disposition (Judge & Hulin, 1993), internal locus of control (Sargent & Terry, 1998), negative affectivity (Schaubroeck, Ganster, & Kemmerer, 1994), self-efficacy (Duffy & Lent, 2009), self-esteem (Salmela-Aro & Nurmi, 2007), and person-job fit (Edwards, 1991).

Bowling and Hammond (2008) conducted a meta-analysis of 80 samples from job satisfaction studies published in between 1979 and 2007. They examined the construct validity of *the Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale*. Results indicated that correlates of job satisfaction include organization commitment, job involvement, career satisfaction, organizational justice, job tensions, anxiety, depression, emotional exhaustion, frustration, and physical strain. In addition, Oshagbemi (2003) reported that correlates of job satisfaction are length of service and rank of individuals.

Researchers also identified work and non-work variables as results of job satisfaction. Conventionally, job satisfaction is thought to result in job performance,

since happy employees would produce better products or services. Several meta-analyses supported that job satisfaction is positively correlated with job performance (Iaffaldano & Muchinsky, 1985; George & Jones, 1997; Petty, McGee, & Cavender, 1984). Job satisfaction is also a determinant for OCB (Schnake, 1991; Organ & Ryan, 1995), counterproductive behavior (Chen & Spector, 1992), turnover intention and actual turnover (Crampton & Wagner, 1994; Wright & Bonett, 2007), absence (Tharenou, 1993), burnout (Shirom, 1989), organization development activity (Blau, Andersson, Davis, Daymont, Hochner, Koziara et al., 2008), and life satisfaction (Judge & Watanabe, 1993).

Interactions of satisfaction with work within the hypothesized model. The perspective that satisfaction with work causes job performance has its roots in human relations theory, which emerged from the Hawthorne effect studies in 1920s (Filley, House, & Kerr, 1976; Petty, McGee, & Cavender, 1984). Vroom (1964) stated that “job satisfaction was positively associated with job performance. In fact, human relations might be described as an attempt to increase productivity by satisfying the needs of employees” (p. 181). Vroom also claimed “the more satisfied a worker, the stronger the force on him to remain his job and the less the probability of his leaving it voluntarily” (p. 175). Further, “his job” may be a career in the long run or an organization in the broad context, although it appears to be indirectly implied in Vroom’s connotation.

In their empirical studies on job satisfaction, Judge, Thoresen, Bono, and Patton (2001) and Nathanson and Becker (1973) found a positive relationship of satisfaction with work to job performance. George and Jones (1997) and Riketta (2008) reported that

their meta-analyses of the earlier studies indicate a positive relationship between satisfaction with work and job performance. Also, in the organization level analysis, Ostroff (1992) showed organizations with higher general satisfaction by employees outperform other organizations.

In some studies, it was reported that there is a positive relationship between satisfaction with work and career commitment, although there has been relatively little research conducted on career commitment. (Carless & Bernath, 2007; Goulet & Singh, 2002; Zhou, Long, & Wang, 2009). Blau and Boal (1987) found that satisfaction with work correlates positively with organization commitment as well. Other researchers reported the same results on an organization commitment study (Mathieu & Zajac, 1990; Vandenberg & Lance, 1992).

This leads the hypotheses (also see Figure 3) related to satisfaction with work:

Hypothesis 4a: There will be a significant positive relationship between employee satisfaction with work and career commitment.

Hypothesis 4b: There will be a significant positive relationship between employee satisfaction with work and job performance.

Hypothesis 4c: There will be a significant positive relationship between employee satisfaction with work and organization commitment.

Satisfaction with Manager

Another potential outcome variable of managerial coaching explored in the study is satisfaction with manager. HRD practitioners and corporate executive are in agreement that immediate managers or supervisors play a critical role in effective organization management and development (Mintzberg, 1973; Northouse, 2001;

Peterson & Hicks, 1996; Rothwell & Kazanas, 1999). Satisfaction or dissatisfaction with manager is sometimes included in job satisfaction studies.

Definition of satisfaction with manager. Satisfaction with manager is defined as individual satisfaction with one's immediate manager (Hackman & Oldham, 1974; Scarpello & Vandenberg, 1987). Satisfaction with manager is identified as an element of employee satisfaction in the current study. Mintzberg (1973) described basic roles of managers: figurehead, leader, liaison, monitor, disseminator, spokesman, entrepreneur, disturbance handler, resource allocator, and negotiator. He asserted that primary purposes of managers in organizations are 1) to ensure that their organization serves its basic purpose; 2) to maintain the stability of organization operations; 3) to sustain organization strategy-making systems, and therein adapt the organization in a planned way to changing environments; 4) to ensure that the organization serves the ends of stakeholders; 5) to serve as a key information link between their team or organization and their environments; 6) to be responsible for operating organization status systems.

Mann (1965) suggested that supervision is a key role of managers to coordinate and reconcile employee goals and needs with organization requirements. Moreover, this managerial role consists of three competencies: 1) technical competency, knowledgeably handling task related issues; 2) human relations competency, getting the work done with subordinates and team; and 3) administrative competency, coordinating activities aligned with organization systems and procedures. These contents were often taught in management development programs and also, supported in other leadership and organizational studies (Guglielmino & Carroll, 1979; Levinson, 1981). Satisfaction with

manager means employee or subordinate attitude to the effectiveness of their immediate managers in these roles and purposes.

Participative management researchers emphasized the importance of effective management and leadership in achieving employee satisfaction and organization success (Lawler, Mohrman, & Ledford, 1995). Also, management and leadership involvement in employee career planning and development is considered as a critical factor for successful organization career development programs (Walker & Gutteridge, 1979; London, 1993). Researchers reported that employee dissatisfaction with manager is a major reason of unionization (Hamner & Smith, 1978). These early studies indicate that employee satisfaction with immediate manager has important implications for organization effectiveness (Scarpello & Vandenberg, 1987).

Antecedents, correlates, and consequences of satisfaction with manager.

Satisfaction with manager is an important work and organization-related variable and is of concern for effective management and leadership practices. Management and leadership style is one of the most frequent variables for antecedents of satisfaction with manager. Weed, Mitchell & Moffitt (1976) investigated the relationship between satisfaction with manager and management and leadership style. Three different styles of leaders (N=48) were selected from 500 male undergraduate students using three criteria: 1) high in relationship orientation and high in task orientation; 2) low in relationship and high in task; and 3) high in relationship and low in task. Results revealed that subordinates are more satisfied with management and leadership behavior that is high in relationship orientation. In similar, Fernando and Hulse-Killacky (2005) reported that

management and leadership style influences employee satisfaction with manager, and self-efficacy.

Lee (2008) also reported conflict handling styles of management and leadership affects subordinate satisfaction with manager. One hundred thirty nine employees participated in the study from a manufacturing, construction, mining, and service organizations in Malaysia. Subordinates were more satisfied with their manager when they experienced integrating, compromising, and obliging conflict management style. They perceived that managers who display dominant and avoiding conflict management styles are likely incompetent and in turn lower their satisfaction with manager.

Cogliser, Schriesheim, Scandura, and Gardner (2009) examined if leader-member exchange (LMX) is correlated with subordinate work attitude. Data were collected from 285 pairs of managers and subordinates. Four LMX types employed for their study were balanced low LMX (low manager and low subordinate LMX), balanced high LMX (high manager and high subordinate LMX), subordinate overestimation (low manager LMX and high subordinate LMX), and subordinate underestimation (high manager LMX and low subordinate LMX). Results revealed that balanced low LMX is associated with low levels of subordinate job satisfaction and organizational commitment; and balanced high LMX is associated with high levels of subordinate job satisfaction and organizational commitment. Also, Ramos-Sánchez, Esnil, Goodwin, Riggs, Touster, Wright et al. (2002) reported that negative supervisory events decrease working alliance between supervisor and supervisee, and slow down supervisee development.

Noelker, Ejaz, Menne, and Jones (2006) explored the effects of personal and facility characteristics, job-related and personal stressors, and social support on satisfaction with management using 338 nursing assistants in 22 nursing facilities. Findings indicated that personal stressors (health, finance, and family concerns) have the biggest impact on satisfaction with management. Work environment support mediated the effects of job-related stressors on satisfaction with management. In similar, Noelker et al. (2009) reported that personal stressors and job-related stressors have the greater impact on satisfaction with management, rather than demographic characteristics and work environment support do.

Lim, Cortina, and Magley (2008) investigated the impact of workplace incivility on employee occupational and psychological well-being. The relationships were tested in two studies: the first study using 1,158 employees; and the second study using 271 employees. Findings were satisfaction with manager mediates the relationship between workplace civility and turnover intentions.

McCormack, Casimir, Djurkovic, and Yang (2006) examined the effects of satisfaction with manager, satisfaction with co-workers, and workplace bullying on affective organization commitment. Data were collected from 142 school teachers in China. They reported that each of satisfaction with manager and satisfaction with co-workers have a significant positive correlation with affective organization commitment while workplace bullying has a significant negative correlation with affective organization commitment.

Also, researchers reported that job performance is one of the key consequences of job satisfaction. Porter and Lawler (1968) suggested that individual performance is influenced by their attitudes. They stated that “performance differences were more likely to be related to attitudes concerned with such things as opportunity for personal growth and development, and opportunity for independent thought and action, than to attitudes concerned with the opportunity to form close friendships or the feeling of security one gets from his job” (p. 149). Spector (1985) and Zhang and Zheng (2009) found that employee satisfaction is positively correlated to *job performance*. It was also reported that satisfaction with manager is related with emotional intelligence of management and leadership (Sy, Tram, & O’Hara, 2006), communication satisfaction (Gregson, 1990), organization commitment, job satisfaction, and turnover intention (Cotton & Tuttle, 1986).

Interactions of satisfaction with manager within the hypothesized model.

Management and organization theorists argued that an effective management and leadership behavior can affect employee job performance, organization commitment, and career development in organizations (Bass & Bass, 2008; House, 1996; London, 1983; Northouse, 2001; Rhoades & Eisenberger, 2002). As described early in this chapter, the three theories, path-goal leadership, organization support, and career motivation, frame these hypothesized relationships with job performance, organization commitment, and career commitment, respectively (also see Figure 2). In addition, Kram (1985) proclaimed mentoring, including a coaching function, can promote career and psycho-social development of employees or protégés. Based on these management and

organizational theories, managerial coaching as an effective management and leadership behavior can promote employee career commitment, job performance, and organization commitment.

Management and organizational researchers reported that satisfactory manager-employee relationship is one of the primary predictors of employee career commitment (Blau, 1985; Goulet & Singh, 2002; London, 1983, 1993; Van Maanen & Schein, 1977). House (1996) supported the positive relationship between satisfaction with manager and job performance. In another related study, Harris, Kacmar, and Zivnuska (2007) found that abusive, dissatisfactory supervision has the negative relationship with employee job performance. Lastly, Blau and Boal (1987) supported that satisfaction with supervision is positively related to organization commitment. Satisfaction with manager is a critical factor to organization affective or affiliation commitment (Balfour & Wechsler, 1996; Carnevale & Wechsler, 1992; Cotton & Tuttle, 1986; Hackett, Bycio, & Hausdorf, 1994).

This leads the hypotheses (also see Figure 3) related to satisfaction with manager:

Hypothesis 5a: There will be a significant positive relationship between employee satisfaction with manager and career commitment.

Hypothesis 5b: There will be a significant positive relationship between employee satisfaction with manager and job performance.

Hypothesis 5c: There will be a significant positive relationship between employee satisfaction with manager and organization commitment.

Career Commitment

Morrow (1983) identified five types of work-related commitment: job involvement, organization commitment, union commitment, work ethic endorsement, and career commitment/professional commitment. Among these, career commitment is

to be explored as another potential outcome of managerial coaching in the study. Career commitment is one of the most under-researched areas in work-related commitments (Ayree & Tan, 1992).

Definition of career commitment. Career commitment is defined as the strength of individual “motivation to work in a chosen career role” (Hall, 1971, p. 59) or individual “attitude towards one’s profession or vocation” (Blau, 1985, p. 278). Career commitment is also expressed as an ability to cope with obstacles in pursuing individual career goals; individuals who have a high level of career commitment are more likely to be persistent in achieving their career objectives than those who have a low level of career commitment. The notion of career commitment is enhanced by the concept of a career as a series of separate-but-related jobs, usually arranged in a hierarchical status that individuals have over time (Blau, 1988; Greenhaus, 1987; Hall, 1976). In the present study, career commitment is identified as a type of employee commitment.

One of the early approaches to conceptualizing individual motivation or attitude to one’s career was to use career salience, which includes work attitude, the relative importance of work, and career planning (Greenhaus, 1973). Another approach was to employ the concept of professionalism or professional commitment, which is the degree to which individuals engage in professional activities such as reading journal articles, attending professional meetings, or joining professional associations (Price & Mueller, 1981). This approach, however, was criticized by some researchers in that professionalism neither represents the generic career concept nor embraces the entire career domain (Morrow & Wirth, 1989). Also, using the term of profession might help

overlook many occupations which are not associated with the noble label of profession (Aree & Tan, 1992).

Management and organizational researchers introduced several different perspectives to further understand employee career behaviors and commitment. One perspective on career behaviors emphasized individual characteristics, such as employee personality (Holland, 1966), while the other perspective highlighted situational characteristics, including manager-employee relationships (Van Maanen & Schein, 1977). Based on these ideas, London (1983) posited a career motivation theory suggesting that both individual and situational characteristics are important variables to employee career decisions and behaviors. According to London (1983), career motivation is a multidimensional, dynamic process of three dimensions: career insight, career resilience, and career identity), and these may reflect and influence employee career commitment (Aryee & Tan, 1992; Carson & Bedeian, 1994; Goulet & Singh, 2002). Career insight is the ability to be realistic about one's values, skills, and experiences and to use these understandings to establish one's career goals, while career resilience is the ability to adapt to changing environments and to pursue designated career goals. Career identity is the degree to which an individual is defined by one's work. In general, career motivation and commitment embrace developing employee career goals and identifying with and involved in those goals (Colarelli & Bishop, 1990) and career motivation is appreciated as an important way to understand career commitment (Blau, 1988).

As reformulating work-related commitment, Morrow (1993) stressed that career commitment is one of the important employee attitudes to their work and organization, along with job involvement, affective organization commitment, continuance organization commitment, and work ethic endorsement. Career commitment is distinct from short-term job commitment, since it involves a longer and internal perspective and a subjective career envisioned by individuals (Hall, 1976). Career commitment is empirically distinct from job involvement (Blau, 1988) and protestant work ethic (Cohen, 1999). Career commitment was also reported to be empirically distinct from organization commitment, including affective, normative and continuance dimensions (Cohen, 1996). Career commitment is often used with occupational commitment, interchangeably.

Antecedents, correlates, and consequences of career commitment. Some researchers identified antecedents, correlates, or consequences of career commitment, although career commitment is not an extensively studied topic area (Aryee & Tan, 1992). London (1983) proposed that job satisfaction is a likely determinant of career commitment since satisfied employees are expected to like their job and organization and in turn, will more likely be committed to their careers. McGinnis and Morrow (1990), Cherniss (1991), and Blau (1999) supported that job satisfaction is positively correlated with career commitment in their empirical studies.

Blau (1985) examined the network of career commitment in a large hospital. This longitudinal study was conducted using a sample of 199 registered nurses. Findings indicated that marital status, work experience, role ambiguity, and leadership initiating

structure are determinants for career commitment. Career commitment was also found to be negatively correlated with career withdrawal cognitions, but not with job withdrawal cognitions.

Colarelli and Bishop (1990) examined antecedents of career commitment using a sample of 341 employees and 85 professionals. They found that career commitment is positively correlated with 1) personal characteristics: age, internal locus of control, and years of education, and 2) socialization experience: having a mentor. It was also reported that career commitment is negatively correlated with role ambiguity and inter-role conflict. Overall, these correlations were stronger in the professional sample group.

Somers and Birnbaum (1998) investigated the relationships among the various types of work-related commitment and job performance. As hypothesized, career commitment was positively correlated with job performance in their study. They also reported that work-related commitment demonstrates an improvement in their job performance in both individual and organization levels (Gardner, 1992; Katzenbach, 2000).

Recent studies expanded the scope of antecedents, correlates, or consequences of career commitment. Goulet and Singh (2002) sought new variables to the framework of the previous research on career commitment. They found that antecedents of career commitment include 1) individual characteristics: need for achievement and work ethics and 2) situational characteristics: fear of job loss, job fit, job satisfaction, organizational commitment, and job involvement.

Carless and Bernath (2007) studied more sophisticated relationships between career commitment and career change intention. In terms of a multi-dimensional model of career commitment (career planning, career resilience, and career identity), they found that career planning and career resilience are significant predictors of career change intention, while career identity is not a significant predictor. Kidd and Green (2006) reported that career planning can be predicted by job autonomy and organization commitment.

Den Hartog and Belschak (2007) conducted two studies on the relationship between career commitment and personal initiative. Results of the first study were that self-reported personal initiative is related to career commitment as well as organization, supervisor, and work-group commitment. The second study used multi-source data, while the first study solely relied on self-reported data, to retest these relationships using both self- and manager-reporting of personal initiative. Results revealed that career *commitment* explains variance in both manager and self-reported personal initiative.

Recently, some studies were conducted in other countries to examine if cultural contexts can cause any unique dynamics on employee work attitude. Aryee and Tan (1992) tested their hypothesized model of the antecedents and outcomes of career commitment using a sample of 510 teachers and nurses in Singapore. They reported that identified antecedents of career commitment are role salience, organization commitment, career satisfaction, and organizational opportunity for development. Outcomes of career commitment were skill development and career and job withdrawal intentions.

Mrayyan and Al-Faouri (2008) investigated career commitment in Jordanian nursing organizations. A convenience sample of 640 registered nurses participated in the study from 24 teaching, governmental, and private hospitals. Findings were that career commitment scores are equal regardless the organization type, but job performance scores are different; the highest mean are scored for nurses in private hospitals. Also, the correlation between career commitment and job performance was significantly positive, and this was a similar finding to U.S. studies.

Freund (2005) administered the survey research in welfare organizations in Israel. Results revealed that career commitment has a significant influence on withdrawal intentions and propensity to leave the organization. And, Jin, Watkins, and Yuen (2009) examined the mediating effect of career decision self-efficacy on the relationship between career commitment process (career commitment and tendency to foreclose) and five-factor personality model using a sample of 785 Chinese graduate students. Their regression analysis indicated that conscientiousness and neuroticism are significantly related to career commitment process through career decision self-efficacy.

Interactions of career commitment within the hypothesized model. Somers and Birnbaum (1998) tested the relationship between career commitment and job performance and found that career commitment was positively related to overall performance effectiveness. Also, career commitment was negatively correlated with work stress and emotional exhaustion and positively correlated with life satisfaction and personal sacrifices (Cohen, 1999; Reilly & Orsak, 1991).

Therefore, the hypothesis (also see Figure 3) is:

Hypothesis 6: There will be a significant positive relationship between employee career commitment and job performance.

Organization Commitment

“What made some volunteers in non-for-profit organizations so highly committed to their work?” (Meyer & Allen, 1997, p. viii). To find answers to this question, management and organizational researchers studied the topic of employee commitment to an organization in a variety of ways. During the past decades, organization commitment became a central topic in the study of employee attitudes and behaviors to their work and organization. Organization commitment is another outcome variable of managerial coaching to be explored in the current study.

Definition of organization commitment. Organization commitment is identified as another type of employee commitment in this study. Organization commitment is defined as the psychological attachment that an individual feels for the organization (Meyer & Allen, 1984; O’Reilly & Chatman, 1986). Mowday, Porter, and Steers (1982) conducted one of the original studies to identify concepts and dimensions of organization commitment. They defined organization commitment as “strength of an individual’s identification with and involvement in an organization” (p. 27) and characterized it as individual strong belief in the organization, acceptance of organization values and missions, willingness to make considerable efforts for the organization, and strong desire to maintain membership in the organization (Mowday et al., 1982).

O’Reilly and Chatman (1986) argued that organization commitment can take three forms: compliance, identification, and internalization. Compliance occurs when

employees adopt organization attitudes and behaviors not because of shared belief, but because of specific rewards or punishments; identification occurs when employees adopt organization influence to maintain a relationship with the organization; and internalization occurs when employees accept organization influence because accepted attitudes and behaviors are harmonious with their own values and goals. However, not all of these views gained agreements from management and organizational researchers.

Meyer and Allen (1997) expanded on the dimensions of organization commitment in terms of 1) affective organization commitment related to emotional attachment to, identification with, and involvement in the organization, 2) normative organization commitment related to obligation to continue employment, and 3) continuance organization commitment related to costs associated with leaving the organization. Affective commitment may arise from an employee psychological attachment with organization aspects; normative commitment may come from employee internalization of organization values and mission; and continuance commitment may come from pressures for compliance or conformity that is driven by rewards or punishments (Fields, 2002). These three dimensions are one of the most widely accepted concepts and measures to organization commitment researchers. The three comprise a separate dimension to one another (Hackett et al., 1994) and are discriminated from other work-related commitments, such as career commitment and job involvement (Cohen, 1999).

Antecedents, correlates, and consequences of organization commitment.

Supportiveness is one of the work and organization-related variables enhancing

organization commitment. Allen and Meyer (1990) reported that new employees show higher organization commitment in a supportive organization, rather than new employees in a less supportive organization. Mottaz (1988) found that managerial support is a determinant for organization commitment. Other researchers also reported similar results from their studies (Baranik, Roling, & Eby, 2009; Eisenberger et al., 1986; Vancouver, Millsap, & Peters, 1994; Vandenberghe, Bentein, Michon, Chebat, Tremblay, & Fils, 2007).

Several meta-analyses identified further antecedents, correlates, and consequences of organization commitment. Mathieu and Zajac (1990) conducted a meta-analysis on organization commitment-related literature. One hundred four published studies between 1984 and 1986 were reviewed and 174 samples were included for their analysis. In total, 48 variables were classified as antecedents (26 variables), correlates (14 variables), or consequences (8 variables). Identified antecedents were 1) personal characteristics: age, sex, education, marital status, position tenure, organization tenure, perceived personal competence, ability, salary, protestant work ethic, and job level, 2) job characteristics: skill variety, task autonomy, challenge, and job scope, 3) group-leader relations: group cohesiveness, task interdependence, leader initiating structure, leader consideration, leader communication, and participative leadership, 4) organization characteristics: organization size and organization centralization, and 5) role state: role ambiguity, role conflict, and role overload. Identified correlates were overall motivation internal motivation, job involvement, stress, occupational commitment, union commitment, overall job satisfaction, intrinsic satisfaction, extrinsic satisfaction,

supervision satisfaction, coworkers satisfaction, promotion satisfaction, pay satisfaction, and work itself satisfaction. And, identified consequences were others' ratings of job performance, output measure of job performance, perceived job alternatives, intention to search, intention to leave, attendance, lateness, and turnover. Randall (1990), Allen and Meyer (1996), and Kacmar, Carlson, and Brymer (1999) also reported similar antecedents, correlates, and/or consequences of organization commitment.

Cohen (1991) conducted a meta-analysis review of 41 samples to investigate the moderating role of career stage on the relationships between organization commitment and outcomes. Findings were that career stage moderates these relationships; the relationship between organization commitment and turnover (intention and actual) is stronger in the early career stage than in the mid and late-career stages; the relationships between organization commitment and job performance and between organization commitment and absenteeism are strongest in the late-career stage.

Cohen (1992) examined the relationships between organization commitment and its antecedents among different occupational groups. Seventy-seven studies were identified and 98 samples were included in their analysis. Findings were that the relationship between organization commitment and personal antecedents is stronger for blue collar and nonprofessional white collar employees than for professional employees; the relationship between organization commitment and organization antecedents (role-related, structural, and work experiences) is less consistent.

Meyer, Stanley, Herscovitch, and Topolnytsky (2002) assessed the relationships between organization commitment and work-related variables, which were identified as

their antecedents, correlates, and consequences in the three-component model (Meyer & Allen, 1991). One hundred fifty samples were used from organization commitment literature published between 1985 and 2000. They found that the three forms of organization commitment are differentiated from one another as well as from job involvement, job satisfaction, and occupational commitment. In general, affective and continuance commitment had significant relationships with their hypothesized antecedent variables (personal characteristics, work experiences, and availability of job investments and alternatives) in the three-component model. The correlations between affective organization commitment and overall job satisfaction, job involvement, and occupational commitment were stronger than the correlations with normative and continuance organization commitment. Affective and normative organization commitment were related with employee-relevant (stress and work–family conflict) and organization-relevant (performance, attendance, and OCB) outcomes. All three forms of organization commitment were negatively related to withdrawal cognition and turnover.

One of the recent studies (Baranik et al., 2009) investigated the mediating role of perceived organization support on the relationship between mentoring support and employee work attitudes, using 733 counselors working in 27 community treatment programs across the U.S. Findings were that mentoring support has positive relationships to affective organization commitment and job satisfaction. In particular, specific types of mentoring supports, such as sponsorship, exposure and visibility, and role modeling were likely to be related to these two outcomes. These relationships were found to be mediated by perceived organization support. In similar, Panaccio and

Vandenberghe (2009) reported that affective organization commitment mediated a positive relationship between perceived organization support and psychological well being.

Another recent study was conducted by Elias (2009) on employee commitment during the times of change. He examined if attitudes toward organization change (ATOC) mediates the relationships between ATOC antecedents and affective organization commitment, using a sample of 258 police officers. Growth need strength, locus of control, and internal work motivation were three ATOC antecedents used in the study. He found that ATOC mediates the relationships of all antecedents to affective organization commitment.

Organization commitment has been studied in global contexts as well. Chang, Chang, and Jacobs (2009) investigated the relationship between participation in communities of practice (CoP) and *organization* socialization among South Korean IT employees (N=213). Results revealed that participation in CoP is related to *organization commitment*, *job satisfaction*, and intention to remain. Also, Herrbach, Mignonac, Vandenberghe, and Negrini (2009) found that perceived human resources practices and voluntary early retirement are related to organization commitment in their study using a sample of 514 French managers.

Dirani (2009) conducted another cross-cultural study in the Lebanese banking sector. Using a sample of 298 respondents, he tested the relationships among *organization commitment*, job satisfaction, and learning organization culture. Results implied significant and positive correlations among these variables. However, cultural

variables (vertical and horizontal individualism and vertical and horizontal collectivism) did not mediate the relationships among the variables. In similar, Song, Kim, and Kolb (2009) reported that learning organization culture mediates the association between organization commitment and interpersonal trust in a sample of 321 Korean employees.

It was also reported in recent studies that organization commitment are related with work withdrawal behaviors of absenteeism and lateness (Somer, 2009), person-environment fit (Greguras & Diefendorff, 2009), career management support (Sturges, Guest, Conway, & Davey, 2002), career commitment (Aryee & Tan, 1992), improved production (Leong, Randall, & Cote, 1994), psychological and physical work-related stress (Reilly & Orsak, 1991), and quality time with family and hobbies (Reilly & Orsak, 1991). Fornes, Rocco, and Wollard (2008) proposed for organizational commitment antecedents clarity of purpose, equity and fairness, empowerment, congruency, feedback and recognition, autonomy, and interesting work.

Interactions of organization commitment within the hypothesized model.

Meyer and Allen (1984) proposed that affective organization commitment is a psychological attachment to and identification with the organization. Affective organization commitment is also distinctive from continuance and normative organization commitment (Allen & Meyer, 1996). Especially, this three component model of organization commitment proposed job performance as its consequence (Meyer & Allen, 1997). This predictive relationship of organization commitment to job performance was also supported by several employee attitude studies (Hackett et al., 1994; Meyer et al., 2002; Ricketta, 2002, 2008).

Affiliation organization commitment is a similar concept to affective organization commitment. Balfour and Wechsler (1996) specified affiliation organization commitment, which is defined as the strength of employee social relationship to the organization, perceived as caring and belonging. Affiliation derives “from beliefs that other members of the organization care about the individual and his/her well-being, and from a feeling of belong to a close-knit, cohesive group” (p. 263). Kacmar et al. (1999) reported affiliation organization commitment was positively related to job involvement. Similarly, affiliation organization commitment may positively affect job performance in organizations.

Therefore, the hypothesis (also see Figure 3) is:

Hypothesis 7: There will be a significant positive relationship between employee organization commitment and job performance.

Job Performance

Job performance is the last potential outcome variable to be explored in the study. Performance refers to the end result of role achievement in organizations and is often associated with productivity of individuals, teams, or organizations (Porter & Lawler, 1968). Job performance is one of the most researched areas in management and HRD.

Definition of job performance. Job performance is defined as “behaviors and actions that are relevant to the goals of the organization” (McCloy et al., 1994, p. 493). As with the organization and career commitments, job performance is also regarded as an amalgam of distinct, but related variables (Astin, 1964). Task proficiency is often emphasized as a main dimension and relationship proficiency appears to be as a supportive dimension in the job performance study. Job performance also includes

actions related to organizational and individual goals. Specifically, job performance for this study is identified as employee in-role performance—as compared to extra-role performance, organization citizenship behaviors and actions.

In one of the earliest job performance research, Vroom (1964) examined studies related to job performance and motivation. After investigating the effects of job content, supervision, groups, and salaries on job performance, Vroom proposed that employees would perform more effectively 1) if job performance is tied to achieving specific goals in organizations, 2) if they believe the task requires abilities which they possess or value, or 3) if rewards embrace recognition, promotions, or wages. In addition, he stated that “level of performance varies directly with the strength of individuals’ need for achievement” and individuals “who are given an opportunity to participate in making decisions which have future effects on them perform at a higher level than those who are not given an opportunity” (p. 267).

Porter and Lawler (1968) conducted another important early study on employee job performance. Based on expectancy theory (Lewin, 1938; Tolman, 1932), Porter and Lawler (1968) developed their conceptual model of employee job attitude and performance. They hypothesized that job performance is significantly related with effort-reward probability, effort, abilities and traits, role perceptions, rewards, perceived equitable rewards, and satisfaction. They also argued that these variables are in feedback loops or relationships so that they directly and indirectly influence each other in the loops.

Regarding job performance measure, social comparison theory (Festinger, 1954) suggested that it would be more accurate if *job performance* raters compare an employee to other employees in organizations rather than to use absolute or objective rating standards. Goffin, Jelley, Powell, and Johnston (2009) supported this social comparison rating approach of job performance in their empirical study using a sample of 170 managers. Findings revealed that social comparative performance appraisals has incremental criterion-related validity over traditional absolute performance appraisals.

Antecedents, correlates, and consequences of job performance. Several meta-analyses identified the antecedents and consequences of job performance. Churchill Jr., Ford, Hartley, and Walker Jr. (1985) conducted their meta-analysis study to examine determinants of job performance in sales organizations. The results indicated that observed antecedents of job performance are personal factors, skills, role variables, aptitude, motivation, and organization/environment factors. It was also reported that these relationships are mediated by customer type and product type.

McEvoy and Cascio (1987) carried out a meta-analysis study designed to estimate the correlation between job performance and turnover. Twenty four studies were reviewed and 7,717 participants were identified for their analysis. Findings indicated that turnover was less likely by higher performers. Potential mediating variables on this relationship were found to be turnover type (voluntary versus involuntary), unemployment rate in job market (above average versus below average), and time span of performance measurement (long-term versus short-term period)

Barrick and Mount (1991) investigated the relationship between the big five personality (extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience) and job performance (job proficiency, training proficiency, and personnel data) in five occupational groups (sales, professional, managers, police, and skilled and semi-skilled). Findings from a total of 162 studies were included from psychology and business literature between 1952 and 1988. Meta-analytic results indicated that conscientiousness has a consistent correlation with all job performance criteria in all occupational groups. Although correlation scores were found to vary by occupational groups and performance criteria, other personality dimensions were also reported as predictors for some performance criteria and occupations. In a similar study, Judge and Bono (2001) conducted a meta-analysis to examine the predictive relationship of personal disposition to job performance. Eighty-one studies between 1967 and 1997 were identified for their analysis. Results revealed that self-esteem, self-efficacy, internal locus of control, and emotional stability are predictors of job performance.

Webber and Donahue (2001) applied a meta-analysis to 24 studies published in between 1980 and 1999 to investigate the relationships between job diversity (highly job-related versus less job-related) and job performance. Findings were that job diversity type did not have a significant relationship with job performance, and group cohesion. As reported in the earlier section for the current study, Tubre and Collins (2000) reported a negative relationship between role ambiguity and job performance; this relationship was moderated by job type (service, clerical and sales, and

professional/technical/managerial) and rating source (objective, self-rating, and supervisor and peer ratings).

Ricketta (2002) conducted another meta-analysis to estimate the correlation between job performance and organization commitment. One hundred eleven samples were included from 93 studies published in between 1887 and 2001. Results indicated that job performance is positively correlated with affective organization commitment. In particular, the significant correlations were found for extra-role performance opposed to in-role performance, white-collar employees opposed to blue-collar employees, and self-rated performance opposed to other rated performance or objective performance indicators. In addition, Chang, Rosen, and Levy (2009) reported that employee perceptions of organizational politics have positive correlations to job performance, affective organization commitment, and employee satisfaction.

Recently, researchers reported correlations between job performance and other work or organization-related variables. Cogliser, Schriesheim, Scandura, and Gardner (2009) explored the degree to which congruence in manager and subordinate ratings of leader-member exchange (LMX) is correlated with subordinate job performance and work attitudes, using a sample of 285 pairs in a large county library system located in the southeastern U.S. Four LMX types employed for their study were balanced low LMX, balanced high LMX, subordinate overestimation (low manager LMX and high subordinate LMX), and subordinate underestimation (high manager LMX and low subordinate LMX). Results revealed that balanced low LMX is associated with low levels of subordinate job performance and work attitude and balanced high LMX is

associated with high levels of subordinate job performance and work attitude. Also, Harris, Wheeler, and Kacmar (2009) reported that LMX quality is positively correlated with self-rated job performance, and empowerment moderates the relationship between LMX and job performance.

Lapierre, Bonaccio, and Allen (2009) conducted a study to investigate how employees should behave in organizations to be mentored by their immediate manager. Forty students in a master of business administration course participated in this repeated-measures experimental design study. The participants imagined they are an immediate manager. They read a series of scenarios, each representing a different subordinate, and selected one to mentor. Each scenario had one of three job performance domains: task performance, OCB targeting the immediate manager, and counterproductive work behavior targeting co-workers. Findings revealed that three domains of employee job performance affect manager willingness to mentor.

Cross-cultural studies were also reported on the topic of job performance. Zhang and Zheng (2009) stated that *job* satisfaction is related to *job performance and affective commitment* is a mediator on this relationship, using a sample of 292 employees from 7 profit organizations in China. They found that cultural values influence how well employees translate job satisfaction into affective organization commitment; employees who are culturally more traditional are likely to better transfer their job satisfaction to affective organization commitment, compared to employees who are culturally less traditional.

It was also reported that antecedents of job performance include positive affectivity (Kaplan, Bradley, Luchman, & Haynes, 2009), extraversion personality (Minbashian, Bright, & Bird, 2009), proactive personality (Fuller Jr. & Marler, 2009), creativity (Gong, Huang, & Farh, 2009), career commitment (Gardner, 1992), job involvement (Somers & Birnbaum, 1998), work-related commitment (Katzenbach, 2000), non-work role commitment (Weer, Greenhaus, & Linnehan, 2009), employee satisfaction (Carmeli & Freund, 2004), role clarity (Wanous, 1978; Tubre & Collins, 2000), perceptions of organizational and managerial practices (Kacmar, Collins, Harris, & Judge, 2009), and feelings of vigor (Carmeli, Ben-Hador, Waldman, & Rupp, 2009).

Interactions of job performance within the hypothesized model. Vroom (1964) suggested that individuals perform more effectively if actions are tied to achieving specific goals and if they are involved in making decisions on their actions and work. Orpen (1985) reported that performance is affected by the perceptions of work roles and organizational support including training and learning, and possibly coaching. Also, Ellinger et al. (2003) reported that employee job performance is positively correlated with managerial coaching. Since details of the relationships between job performance and other key study variables for the current study were already addressed in the earlier sections, hypotheses related to job performance were not repeated here. Based on the aforementioned literature, Figure 4 provides the hypothesized directionality of each interaction within the hypothesized conceptual model.

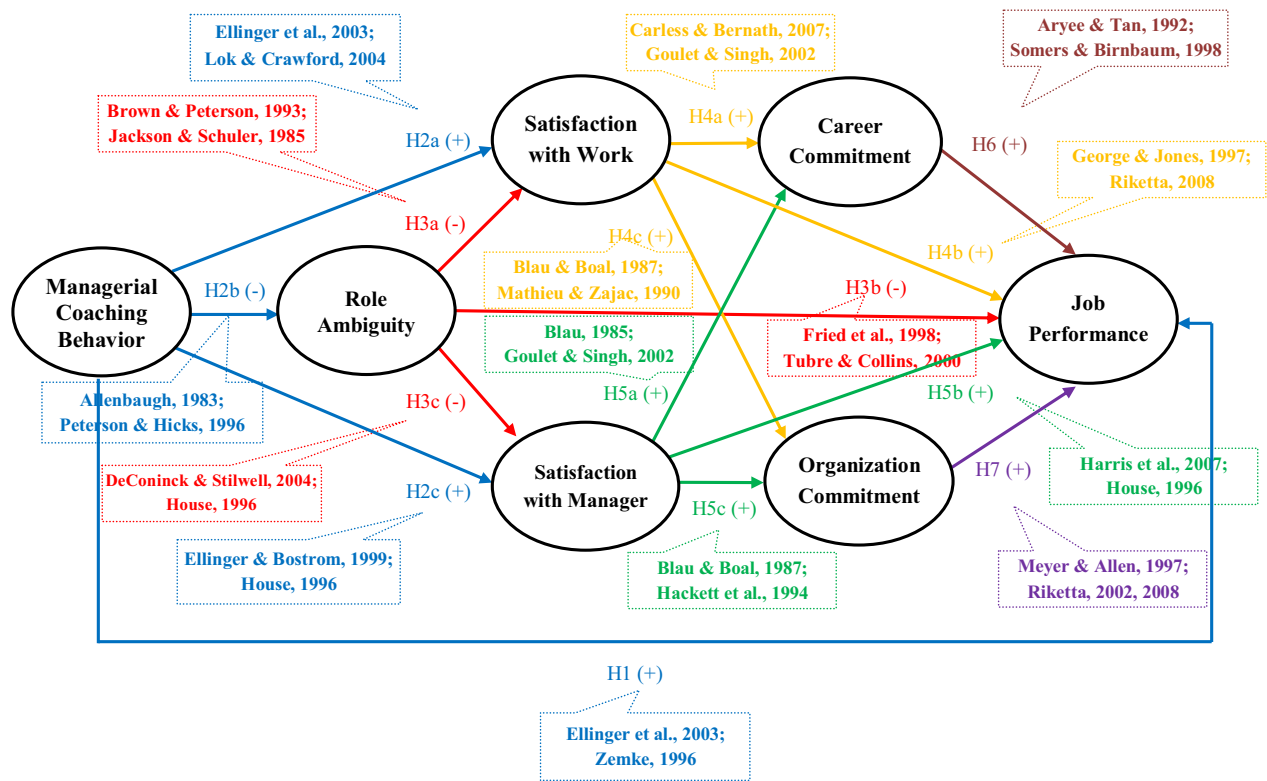


Figure 4. Key literature informing hypothesized conceptual model of managerial coaching outcomes.

Summary

In Chapter II, literature relating to the seven factors involved in the study: *managerial coaching, employee satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment* were addressed. The theoretical framework for the study was introduced and the hypothesized model of managerial coaching outcomes was proposed. Specifically, the origins, definitions and characteristics, classification, positionality in HRD, processes, and competencies of managerial coaching were addressed. In the following part, the definitions, correlations, and some important studies were introduced for each outcome variable. In the next chapter, the research methodology used to conduct this study is provided.

CHAPTER III

METHODOLOGY

Included in this methodology chapter is a brief description of the study design, the population of the study, the sample of the study and demographic composition, the instruments utilized to collect data, the procedures employed for the data collection, and finally the details of the methods and techniques used for the data analyses.

Study Design

The purpose of this study was to address the research question about the relationships between and among managerial coaching behavior and employee affective and performance related responses based on the perceptions of selected *Texas Engineering Extension (TEEX)* employees. An electronic survey was utilized to collect data for the study. Existing seven instruments, *managerial coaching behavior* (Ellinger et al., 2003), *satisfaction with work* (Cammann et al., 1983), *role ambiguity* (Rizzo et al., 1970), *satisfaction with manager* (Hackman & Oldham, 1974), *career commitment* (Blau, 1989), *job performance* (Carden, 2007), and *organization commitment* (Meyer & Allen, 1997), were used for the survey. The readability level for the survey was established via the Flesh-Kincaid Grade Level technique (Kincaid, Fishburne, Rogers, & Chissom, 1975). Two phases of a pilot test were conducted with twelve individuals for the first phase and five individuals for the second phase to determine the clarity of the survey instruction and questions and the functionality of the online survey instrument. Minor changes were made to improve the effectiveness of the survey administration. Data were

collected via the three rounds of email invitation with the survey link, which were sent to the selected employees using their organization email accounts. After data collection via the online survey, estimates of reliability were conducted for the seven factors, *managerial coaching behavior, satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment*, and all 36 items combined for the study using Cronbach's alpha technique. A principal component analysis (PCA) with a direct oblimin rotation was conducted to determine if the combined survey instruments exhibited seven constructs or factors. Since only six factors were identified, another reliability analysis was conducted for the obtained six factors, *managerial coaching, satisfaction with work, role clarity, career commitment, job performance, and organization commitment*, and all 31 items; two factors, *managerial coaching behavior and satisfaction with manager*, were combined as one hybrid factor, while the other five factors stayed the same, and five items were dropped as a result of the PCA. A bivariate correlation analysis of the six factors was also conducted. A structural equation modeling (SEM) analysis was conducted to test the theoretical model and structural correlations hypothesized in the current study.

Population

The population of this study consisted of 1,399 employees in TEEEX. As one of the largest providers of workforce training and development in the United States, TEEEX is internationally recognized for its innovative, customized training and development programs (TEEX.com). Each year, TEEEX helps more than 120,000 workers to develop their competencies, get certified in their professions, and learn more about new

technologies (B. Plunkett, personal communication, August 17, 2009). TEEEX instructors have industrial experience from a variety of safety related occupations including industry specific hazard recognition, evaluation and control methods (M. Posada, personal communication, August 17, 2009). TEEEX offers approximately 6,000 professional training classes for diverse learners representing all 50 states and more than 45 countries (TEEEX, 2009). TEEEX was chosen as the study population because TEEEX officials were very supportive of conducting the coaching study in their organization. Since there is a paucity of research reported in the area of managerial coaching outcomes, most organizations, including TEEEX, could provide a meaningful context for the study to generate new, valuable findings.

Study Sample

Five hundred eight employees responded to the survey (also see the data collection procedure in the latter part of this chapter). After examining the responses, I judged four hundred seventy two respondents to be true respondent cases: Thirty six respondents were considered as inadmissible because they rarely answered the survey questions. There were 41 cases (out of 472) with missing data. A specific pattern of missing data was not detected in the data set. Most of the 41 did not respond to one to

three questions (out of the 36 questions), although one individual did not respond to eight questions. List-wise deletion was applied to keep the same number of cases in all analyses: These 41 cases were excluded from the final study sample. The incomplete and deleted response rate was 8.69% (41/472) and indicated that the small amount of missing data was acceptable (< 10%) (Cohen & Cohen, 1983). The final sample size was 431 to represent a population of 1,399 total employees in the TEEEX. This exceeds the sample size (302) suggested by Krejcie and Morgan (1970) to appropriately represent the selected population.

Demographic Characteristics

Descriptive statistics were computed to examine demographic and professional characteristics of the 431 respondents. Their managers' characteristics were examined as well. The statistical software SPSS 16.0 was used for the descriptive statistics.

Demographic characteristics of the respondents are presented in Table 4.

Table 4
Demographic Characteristics

Characteristics		N	Percent	Valid Percent
Gender	Male	279	64.7	65.2
	Female	149	34.6	34.8
	Missing	3	.7	
	Total	431	100.0	100.0
Age	Less than 21 years	5	1.2	1.2
	21-25	15	3.5	3.5
	26-30	22	5.1	5.1
	31-35	20	4.6	4.7
	36-40	40	9.3	9.3
	41-45	42	9.7	9.8
	46-50	84	19.5	19.6
	51-55	78	18.1	18.2
	56-60	60	13.9	14.0
	61-65	42	9.7	9.8
	More than 65 years	21	4.9	4.9
	Missing	2	.5	
Total	431	100.0	100.0	
Ethnicity	American Indian or Alaska Native	6	1.4	1.4
	Asian (Middle Eastern, Asian-Indian, Asian)	2	.5	.5
	Black or African American	12	2.8	2.8
	Chicano/Latino/Hispanic	34	7.9	7.9
	Caucasian	362	84.0	84.6
	Others	12	2.8	2.8
	Missing	3	.7	
	Total	431	100.0	100.0
Highest Education Level	Did not complete high school	2	.5	.5
	High school graduate	113	26.2	26.4
	Certificate or Associate degree	88	20.4	20.6
	Undergraduate degree	122	28.3	28.5
	Master's degree	94	21.8	22.0
	Doctoral degree	9	2.1	2.1
	Missing	3	.7	
	Total	431	100.0	100.0

Based on the demographic characteristics of the respondents in Table 4, male respondents ($n = 279$, 64.7%) outnumbered female respondents ($n = 149$, 34.6%). The sample represents a variety of age groups from less than 21 years to more than 65 years: The largest respondent group was 46-50 ($n = 84$, 19.5%), followed by 51-55 ($n = 78$, 18.1%) years; and the smallest respondents group was less than 21 years ($n = 5$, 1.2%), followed by 21-25 years ($n = 15$, 3.5%). The majority of the respondent ethnicity was Caucasian ($n = 362$, 84%), although there existed several other ethnic groups. More than half of the respondents had an undergraduate or a higher degree of education ($n = 225$, 52.9%).

Professional Characteristics

Professional characteristics of the respondents are exhibited in Tables 5 and 6. First, job area and tenure of the respondents are presented.

Table 5
Professional Characteristics: Job Area

	Characteristics	N	Percent	Valid Percent
Job Area	Architecture and Engineering	5	1.2	1.2
	Arts, Design, Entertainment, Sports, and Media	5	1.2	1.2
	Building and Grounds Cleaning and Maintenance	3	.7	.7
	Business and Financial Operations	27	6.3	6.4
	Community and Social Services	4	.9	.9
	Computer and Mathematical	11	2.6	2.6
	Construction and Extraction	3	.7	.7
	Education, Training, and Library	210	48.7	49.5
	Food Preparation and Serving Related	1	.2	.2
	Healthcare Practitioners and Technical	10	2.3	2.4
	Healthcare Support	4	.9	.9
	Installation, Maintenance, and Repair	7	1.6	1.7
	Legal	2	.5	.5
	Life, Physical, and Social Science	1	.2	.2
	Management	36	8.4	8.5
	Military Specific	4	.9	.9
	Office and Administrative Support	57	13.2	13.4
	Production	6	1.4	1.4
	Protective Service	23	5.3	5.4
	Sales and Related	3	.7	.7
	Transportation and Material Moving	2	.5	.5
Missing	7	1.6		
Total	431	100.0	100.0	

Table 6
Professional Characteristics: Job Tenure

Characteristics		N	Percent	Valid Percent
Job Tenure	Less than one year	20	4.6	4.7
	1 year to less than 3 years	70	16.2	16.4
	3 years to less than 5 years	59	13.7	13.8
	5 years to less than 10 years	90	20.9	21.1
	10 years to less than 15 years	35	8.1	8.2
	15 years to less than 20 years	34	7.9	8.0
	20 years to less than 25 years	33	7.7	7.7
	25 years to less than 30 years	39	9.0	9.1
	30 years or more than 30 years	47	10.9	11.0
	Missing	4	.9	
Total		431	100.0	100.0

As illustrated in Table 5, the respondents were from various job areas. However, the majority were from the areas of education, training, and library ($n = 210, 48.8\%$), office and administrative support ($n = 57, 13.2\%$), and management ($n = 36, 8.4\%$). As presented in Table 6, the number of years in their job areas ranged from less than one year to 30 years or more than 30 years. The two largest tenure groups were 5 years to less than 10 years ($n = 90, 20.9\%$) and 1 year to less than 3 years ($n = 70, 16.2\%$), while the two smallest were less than one year ($n = 20, 4.6\%$) and 15 years to less than 20 years ($n = 34, 7.9\%$).

Table 7
Professional Characteristics: Organization Tenure

Characteristics		N	Percent	Valid Percent
Organizational Tenure	Less than one year	28	6.5	6.6
	1 year to less than 3 years	88	20.4	20.7
	3 years to less than 5 years	89	20.6	20.9
	5 years to less than 10 years	139	32.3	32.6
	10 years to less than 15 years	32	7.4	7.5
	15 years to less than 20 years	26	6.0	6.1
	20 years to less than 25 years	10	2.3	2.3
	25 years to less than 30 years	7	1.6	1.6
	30 years or more than 30 years	7	1.6	1.6
	Missing	5	1.2	
Total	431	100.0	100.0	

Table 8
Professional Characteristics: Job Position

Characteristics		N	Percent	Valid Percent
Job Position	Technician/Professional	275	63.8	65.8
	First-line Manager	45	10.4	10.8
	Middle Manager	69	16.0	16.5
	Senior Manager	29	6.7	6.9
	Missing	13	3.0	
	Total	431	100.0	100.0

Table 9
Professional Characteristics: Employment Status

Characteristics		N	Percent	Valid Percent
Employment Status	Full time worker	302	70.1	70.4
	Part time worker	116	26.9	27.0
	Student worker	11	2.6	2.6
	Missing	2	.5	
	Total	431	100.0	100.0

Organization tenure, job position, and employment status for the professional characteristics are provided in Tables 7, 8, and 9. As reported in Table 7, the number of years in the current organization ranged from less than one year to 30 years or more than 30 years. The two largest tenure groups in the organization were 5 years to less than 10 years ($n = 139$, 32.3%) and 3 years to less than 5 years ($n = 89$, 20.6%). As the descriptive statistics in Table 8 indicate, there were more respondents working in the technician and professional level ($n = 275$, 63.8%) than in the managerial levels ($n = 143$, 33.2%). Among the three managerial levels, the middle management position ($n = 69$, 16.0%) had the largest group of individuals. As shown in Table 9, most of the respondents were full time workers ($n = 302$, 70.1%), and a small portion of the respondents were student workers ($n = 11$, 2.6%).

Managers' Characteristics

The descriptive statistics of the managers' characteristics were computed from the information provided by the 431 respondents. Demographic characteristics of the respondents' managers are presented in Table 10.

Table 10
Managers' Characteristics

Characteristics		N	Percent	Valid Percent
Gender	Male	334	77.5	79.7
	Female	85	19.7	20.3
	Missing	12	2.8	
	Total	431	100.0	100.0
Age	31-35	16	3.7	4.0
	36-40	53	12.3	13.1
	41-45	68	15.8	16.8
	46-50	85	19.7	21.0
	51-55	101	23.4	25.0
	56-60	52	12.1	12.9
	61-65	22	5.1	5.4
	More than 65 years	7	1.6	1.7
	Missing	27	6.3	
	Total	431	100.0	100.0

As presented in Table 10, the respondents had more male managers ($n = 334$, 77.5%) than female managers ($n = 85$, 19.7%). The age groups of their managers ranged from 31-35 years to more than 65 years. The largest age group of the managers was 51-

55 years ($n = 101$, 23.4%), followed by 46-50 years ($n = 85$, 19.7%) and 41-45 years ($n = 68$, 15.8%), while the smallest age group of the respondents' managers was more than 65 years ($n = 7$, 1.6%) followed by 31-35 years ($n = 16$, 3.7%). In this section, the demographic and professional characteristics of the 431 respondents as well as their managers' characteristics were addressed.

Instrumentation

Consistent with the theoretical model and structural correlation hypotheses being tested, the survey for the current study included seven assessment instruments. They were *managerial coaching behavior* (Ellinger et al., 2003), *satisfaction with work* (Cammann et al., 1983), *role ambiguity* (Rizzo et al., 1970), *satisfaction with manager* (Hackman & Oldham, 1974), *career commitment* (Blau, 1989), *job performance* (Carden, 2007), and *organization commitment* (Meyer & Allen, 1997). The instruments were selected while keeping two criteria in mind: (1) that the instruments met reasonable validity and reliability standards, and (2) that the instruments were short and practical to administer in terms of the amount of time required to complete.

The instruments employed in the survey had a total of 36 items, plus demographic information items. Although the validity and reliability of the seven instruments have been established in previous studies, I estimated the construct validity via PCA with the direct oblimin rotation and reliability via Cronbach's alpha for the sample of the current study. Each item was presented as a seven-point Likert-type scale with 1, being "strongly disagree" to 7, being "strongly agree." This was the scale form from the original instruments.

Measuring Managerial Coaching Behavior

The *Supervisory Coaching Behavior* instrument (Ellinger et al., 2003) was used to collect data to measure the coaching behavior of managers. The instrument was developed by Ellinger and her colleagues based on her dissertation and subsequent studies (Ellinger, 1997; Ellinger & Bostrom, 1999; Ellingers, Watkins, & Bostrom, 1999). The eight items of the instrument were designed based on the findings of her previous qualitative critical incident study, which explored how high performing managers coach their employees in organizations (Ellinger, 1997). A taxonomy of coaching behaviors was developed from the analyzed interviews, and the reoccurring eight themes were selected and translated into items by Ellinger and her colleagues, while maintaining face validity.

Ellinger et al. (2003) reported that the process of selecting the eight themes was corroborated by a review of the existing coaching literature to examine coaching skills and behaviors identified by other researchers and practitioners. Principal component coefficients for the eight items ranged from .77 to .88. and the item-to-total correlation coefficients ranged from .70 to .83. In addition, the goodness of fit index (GFI) at .93, comparative fit index (CFI) at .96, and incremental fit index (IFI) at .96 supported the unidimensionality of the instrument. Cronbach's alpha for the multi-item measure was .939.

Measuring Satisfaction with Work

The *Overall Job Satisfaction* instrument developed by Cammann et al. (1983) was employed to measure satisfaction with work. The instrument is a part of *the*

Michigan Organizational Assessment Questionnaire and is used to describe employee responses to working in one's job. The instrument has three items and Chronbach's alpha for the instrument has been reported to range from .67 to .95 (Fields, 2002; McFarlin & Rice, 1992; McLain, 1995; Pearson, 1991; Sanchez & Brock, 1996; Siegall & McDonal, 1995). In order to help respondents have a clearer understanding, the item, "In general, I like working here," was changed to "In general, I like working at my current job." The logistics pilot study ensured the improved face validity and clarity of the revised item.

Sanchez, Kraus, White, and Williams (1999) reported that job satisfaction is empirically distinct from organizational munificence, benchmarking, and high-involvement human resources practices. Job satisfaction correlated significantly and positively with organization commitment, job involvement, job focus, and manager's job involvement, (George, 1995; McLain, 1995; Siegall & McDonald, 1995). On the other hand, job satisfaction correlated significantly and negatively with employee off-job focus, task distraction, and turnover intention (Siegall & McDonald, 1995).

Measuring Role Ambiguity

The *Role Conflict and Ambiguity* instrument developed by Rizzo et al. (1970) was used for the measurement of role ambiguity. This instrument is one of the first measures in the area of role state and has two dimensions: role conflict and role ambiguity. Only the role ambiguity dimension of the instrument was applied for the current study in order to meet the study purpose. The measure of the role ambiguity dimension has six items and Chronbach's alpha for the measure has been reported to

range from .71 to .95 (Adkins, 1995; Bauer & Green, 1994; Dobbins, Cardy, & Platz-Vieno, 1990; Fields, 2002).

Researchers have reported that role ambiguity is a distinct construct from role conflict (Netemeyer, Burton, & Johnston, 1995; Smith, Tisak, & Schmieder, 1993). Harris and Bladen (1994) also found that role ambiguity is distinct from job satisfaction, job tension, and role overload. Fried (1998) stated role ambiguity correlated significantly and negatively with job performance. In Rizzo et al. (1970), role ambiguity correlated significantly and negatively with effective management and leadership behaviors, employee satisfaction, and propensity to leave the organization.

Measuring Satisfaction with Manager

The *Job Diagnostic Survey (JDS)* instrument was used for the study. The JDS was originally developed by Hackman and Oldham (1974) and is one of the most frequently cited instruments in *the Social Sciences Citation Index* by organizational researchers (Taber & Taylor, 1990). It is used to measure overall satisfaction and facet specific satisfaction, such as satisfaction with security, compensation, co-workers, and manager. For this study, the dimension of satisfaction with manager, labeled as “Supervisory Satisfaction” in the JDS, was employed as the instrument to measure satisfaction with manager. The supervision satisfaction dimension has three items and Chronbach’s alpha for the instrument has been reported to range from .79 to .89 (Hackman & Oldham, 1975; Mathieu, Hofmann, & Farr, 1993).

Satisfaction with manager and overall job satisfaction were shown to be empirically distinctive from organization commitment and job involvement (Mathieu &

Far, 1991). Tompson and Werner (1997) and Duffy, Ganster, and Shaw (1998) reported that satisfaction with manager and overall satisfaction correlated significantly and positively with organizational citizenship behaviors, organization commitment, and inter-role facilitation. It correlated significantly and negatively with tenure.

Measuring Career Commitment

The *Career Commitment* instrument developed by Blau (1989) was used to measure career commitment. Five items were selected from a total of seven items of the instrument, based on the selection criterion that the instruments were to be short and practical to administer in terms of the amount of time required to complete. Carden (2007) used the same five items for her study and reported that Chronbach's alpha for the instrument was .79. Reported Chronbach's alpha for the seven items of the instrument ranged from .76 to .88. (Cohen, 1996; Cohen, 1999; Reilly & Orsak, 1991; Somers & Birnbaum, 1998).

Cohen (1996) found that career commitment was distinct from affective organization commitment. It was also reported as distinctive from job involvement and Protestant work ethic (Cohen, 1999). Career commitment correlated significantly and positively with job performance and life satisfaction, while it correlated significantly and negatively with low accomplishment, work stress, and emotional exhaustion (Cohen, 1999; Reilly & Orsak, 1991).

Measuring Job Performance

According to Porter and Lawler (1968), *job performance* can be measured in three ways: self-ratings, ratings by someone other than the performer, and objective

verifiable. For the current study, job performance was measured by self-ratings. The instrument consists of five items rated on a seven-point scale. This Likert type scale was used to assess the respondent's perceived level of job performance as compared to his or her peers (i.e., upper 5%, upper 10%, upper 25%, middle 50%, lower 25%, lower 10%, and lower 5%). Chronbach's alpha for the instrument was reported as .87 (Carden, 2007). The items for measuring job performance included: 1. My overall performance compared to my peers; 2. My ability to get along with other compared to my peers; 3. My ability to complete tasks on time compared to my peers; 4. My quality of performance (as opposed to quantity of performance) compared to my peers; and 5. My actual achievement of work goals compared to my peers.

Measuring Organization Commitment

The *Organization Commitment* instrument developed by Meyer and Allen (1997) was employed to collect data to measure organization commitment. In particular, the affective dimension from the shortened version of the instrument was selected. The affective dimension instrument has six items. Chronbach's alpha for the affective organization commitment instrument has been reported to range from .77 to .88. (Meyer & Allen, 1997; Somers, 1995; Fields, 2002).

Hackett et al. (1994) provided evidence from their confirmatory factor analysis that affective organization commitment is distinctive from normative organization commitment and continuance organization commitment. Cohen (1999) reported discriminate validity among affective organization commitment, career commitment, and continuance organization commitment. In Somers' study (1995), affective

organization commitment correlated significantly and positively with employee turnover. Allen and Meyer (1990) found that affective organization commitment had a significant and positive relationship with organization socialization programs.

Estimates of Reliability I

Estimation of reliability was conducted for the seven instruments in the study. The reliability estimates for *managerial coaching behavior*, *satisfaction with work*, *role ambiguity*, *satisfaction with manager*, *career commitment*, *job performance*, and *organization commitment* were computed using the Cronbach's alpha technique. The results of the reliability analysis are provided in Table 11.

Table 11
Estimates of Reliability I

Factors	N of Items	Cronbach's Alpha
<i>Managerial Coaching Behavior</i>	8	.95
<i>Satisfaction with Work</i>	3	.87
<i>Role Ambiguity</i>	6	.88
<i>Satisfaction with Manager</i>	3	.94
<i>Career Commitment</i>	5	.83
<i>Job Performance</i>	5	.92
<i>Organization Commitment</i>	6	.89
(Overall)	36	.95

As the estimates of the internal consistency in Table 11 indicate, the seven instruments selected for the current study were found to be reliable. According to Kline (2005), an alpha coefficient greater than .70 ($> .70$) means that at least 70% of the

variance is systematic and reliable variance. Cronbach's alpha for all instruments exceeded .82 ($> .70$, Kline, 2005) and indicated that at least 82% of the total variance was systematic and reliable. The Cronbach's alpha if item deleted was also computed to determine if there existed a bad item causing a significant decrease of the internal consistency within each of the seven measures. The Cronbach's alpha if item deleted is provided in Table 12.

Table 12
Cronbach's Alpha if Item Deleted I

Factors	Items	Cronbach's Alpha if Item Deleted	Cronbach's Alpha if Item Included
<i>Managerial</i>	MCB1 ...uses analogies, scenarios, and examples to help me learn.	.95	.95
<i>Coaching</i>	MCB2 ...broaden my perspective by helping me to see the big picture.	.94	.95
<i>Behavior</i>	MCB3 ...provides me with constructive feedback.	.94	.95
	MCB4 ...ensure that his/her interactions are helpful to me.	.94	.95
	MCB5 ... perform my job more effectively.	.95	.95
	MCB6 ...asks questions, rather than provide solutions.	.95	.95
	MCB7 ...expectations to the broader goals of the organization.	.95	.95
	MCB8 ...role-plays with me.	.95	.95
<i>Satisfaction with Work</i>	SW1 ...satisfied with my job.	.74	.87
	SW2 (R) ...don't like my job.	.90	.87
	SW3 ...like working on my current job.	.80	.87
<i>Role Ambiguity</i>	RA1 ...know exactly what is expected of me.	.85	.88
	RA2 ...know that I have divided my time properly.	.89	.88
	RA3 ...is clear of what has to be done.	.84	.88
	RA4 ...know what my responsibilities are.	.86	.88
	RA5 ...goals and objective exist for my job.	.85	.88

Table 12 (continued)

Factors	Items	Cronbach's Alpha if Item Deleted	Cronbach's Alpha if Item Included
	RA6...feel certain about how much authority I have.	.87	.88
<i>Satisfaction</i>	SM1 ...respect and fair treatment I receive from my boss.	.94	.94
<i>With Manager</i>	SM2 ...support and guidance I receive from my supervisor.	.90	.94
	SM3 ...quality of the supervision I receive in my work.	.90	.94
<i>Career</i>	CC1 ...like this career too well to give it up.	.76	.83
<i>Commitment</i>	CC2 (R) ...would probably take it.	.80	.83
	CC3 (R) ...would not choose to work in this profession.	.85	.83
	CC4 ...want a career for myself in this profession.	.77	.83
	CC5 ...is the ideal profession for a life's work.	.76	.83
<i>Job</i>	JP1 (R) ...overall performance compared to my peers.	.89	.92
<i>Performance</i>	JP2 (R) ...ability to get along with others compared to my peers.	.93	.92
	JP3 (R) ...ability to complete tasks on time compared to my peers.	.90	.92
	JP4 (R) ...quality of performance compared to my peers.	.88	.92
	JP5 (R) ...achievement of work goals compared to my peers.	.88	.92
<i>Organization</i>	OC1 ...spend the rest of my career with this organization.	.87	.89
<i>Commitment</i>	OC2 ...feel as if this organization's problems are my own.	.88	.89
	OC3 (R) ...not feel like "part of the family" at my organization.	.87	.89
	OC4 (R) ...not feel "emotionally attached" to this organization.	.86	.89
	OC5 ...has a great deal of personal meaning for me.	.87	.89
	OC6 (R) ...not feel a strong sense of belonging to my organization.	.86	.89

Note. (R) refers to reverse item.

As indicated in Table 12, no bad item was identified. Most of items deleted led to lower or equal Chronbach's alpha, and it indicated that they were good items contributing to stronger internal consistency. Although four items deleted led to slightly higher Chronbach's alpha (SW2 .87 -> .90; RA2 .88 -> .89; CC3 .83 -> .85; JP2 .92 -> .93), they were not considered critical since their changes were small and the measures already had high alpha coefficient values ($> .70$, Kline, 2005). Therefore, the estimates of reliability demonstrate that the 36 items were good items contributing to strong internal consistency and that the items for each of the seven measures had adequate reliability.

Assumptions and Limitations

Assumptions and limitations involved in administering the instruments for the study are the following:

Assumptions

1. The respondents were able to understand and answer the questions accordingly at Flesh-Kincaid Level 7.1, which indicates a seventh grade reading level.
2. The respondents were honest and forthcoming in answering the questions.
3. The interpretation of the data accurately reflected the intent of the respondents.

Limitations

1. The study was limited to the information acquired from the review of the published literature and the survey instrument.

2. The respondents might not be able to recall information accurately.
3. As with any self-report measure, there existed a possibility of difference between the respondent perception and the actual performance.

Ethical Considerations

Fontana and Frey (2003) recommended the guidelines for the data collection procedure. The ethical guidelines employed in the study were the following:

1. The identity of the respondents was not revealed. There was no written mention of the name or any indicator which may identify the respondents in any public document. Only general demographic information was collected.
2. No physical, mental or emotional harm was done to the respondents in any form.
3. IRB approval was earned before starting the data collection.
4. Data are protected in a private and secure place. Only the researcher has access to the data collected.

Data Collection Procedure

After obtaining the IRB approval (see Appendix A), I contacted senior and middle managers in the target organization. First contacts were made via emails and phone calls. The purpose and general outlines of the survey study were introduced. The possibility of study participation sponsorship was discussed in an executive team meeting and the official sponsorship for the survey was granted. Face-to-face meetings with two TEEEX officials were followed to plan the details of the data collection procedure. TEEEX personnel were also involved in the design process of the online

survey and invitation email messages because of their familiarity with the selected population. An invitation email with a cover letter introduced the study and the researcher, the benefits and potential harm to study participation, the terms of consent and the assurance of confidentiality, and the contact information of the researcher, the advisor of the researcher, and an *Institutional Review Board (IRB)* official from Texas A&M University.

A logistics pilot study with twelve individuals was conducted to estimate the face validity and clarity of the survey questions, the accessibility and functionality of the online survey instrument, and the length of time to complete the online survey. Minor revisions, such as assigning a smaller number of questions per page, were made to improve the effectiveness of online survey administration. Another phase of the logistics pilot study with five individuals was conducted for the final review. The participants for the pilot study were doctoral students and faculty in the fields of *HRD, Business Administration, Public Administration, Educational Administration, or Adult Education*. The university survey service, *Qualtrics* (<http://www.qualtrics.com>), was used for data collection in the study.

Electronic surveys were conducted between August 26, 2009 and October 25, 2009. Three invitation emails to the online survey were employed to collect data from the selected participants using TEEEX email accounts. Before each of the three invitation emails from the researcher, a TEEEX official sent potential respondents a preparatory email introducing the study and the researcher, their choice of free participation to the study, and the upcoming invitation email from the researcher. I then sent a following

invitation email with the cover letter (see Appendix B) and the survey link to 1,399 TEEX employees. Three hundred twenty employees responded to the first invitation email, which was sent on August 26, 2009. One hundred thirty five employees responded to the second invitation reminder email (see Appendix C), which was sent on September 8, 2009. Fifty three employees responded to the third invitation reminder (see Appendix C), which was sent on October 19, 2009. For this last phase of the survey invitations, 118 employees were randomly selected from the not-yet-responded employees. A postcard (see Appendix D) as a tangible reminder was sent to these employees, immediately followed by the final invitation reminder email. A total of five hundred eight (36.31%) employees responded to the three online survey invitations.

Data Screening

Examination and resolving any issues of the data prior to running the main analyses is fundamental to an honest data analysis. It is recommended that researchers screen the original data before creating a raw data file or a matrix summary (Hair, Black, Babin, Anderson, & Tatham, 2006; Kline, 2005; Tabachnick & Fidell, 1996). Based on these suggestions, the data were checked for accuracy, missing data, multivariate normality, univariate normality, outliers, linearity, and multicollinearity and singularity in the study. The checklist for the data screening used for the current study is provided in Table 13.

Table 13
Checklist for Data Screening

<ol style="list-style-type: none"> 1. Inspect descriptive statistics for accuracy of input <ol style="list-style-type: none"> a. Out-of-range values b. Plausible means and standard deviations c. Univariate outliers 2. Identify and evaluate amount, distribution, and reason of missing data: handle problem 3. Identify and handle nonnormal variable distributions <ol style="list-style-type: none"> a. Check skew and kurtosis b. Transform variables if desirable c. Check results of transformation 4. Identify and handle outliers <ol style="list-style-type: none"> a. Variables causing outliers b. Description of outliers 5. Check scatter plots for linearity among pairs of variables 6. Evaluate variables for multicollinearity and singularity
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Note. Based on Hair et al. (2006); Kline (2005); and Tabachnick and Fidell (1996).

Accuracy

The first issue in the data screening concerns the accuracy of the data. Data entered into the data file may incorrectly represent the original data and produce distorted correlations and regressions. The best way to assure the accuracy of the data file is to proofread the original data against the computerized data. However, since it is not always possible to proofread the large data file, I chose to examine the descriptive statistics and the graphic representations of the variables for the data screening in the study (Tabachnick & Fedell, 1996). The examination of the descriptive statistics and the

graphic representations of the 36 variables indicated the data entered in the data file were accurate.

Missing Data

How to handle missing data is one of the most popular issues in data analysis. Typically, missing data occurs because of factors beyond the researchers' control: The issue happens when study participants do not answer all survey questions; study participants quit their job or leave their organization; or study equipment stops functioning after the study started. Missing data can influence the results of the data analysis depending on their pattern and amount of missing data (Tabachnick & Fedell, 1996).

The pattern of missing data is more important than how much is missing. Not-missing-at-random (NMAR) data (Little & Rubin, 1987) affect the generalizability of the results, while missing data not systematic and scattered randomly imply less serious problems. According to Cohen and Cohen (1983), the existence of more than 10% missing data requires researchers to pay special attention to the data. A small amount of missing data is ignorable, especially in a large sample size (Hair et al., 2006). List-wise deletion or pair-wise deletion can be used for dealing with missing data. The former is to exclude cases with missing scores from all analyses and the latter is to exclude cases only if they have missing data on the variables involved in a particular analysis. For the current study, list-wise deletion was used to keep the same number of cases in all analyses.

Forty one cases (out of 472) with missing data were identified in the current study sample. However, a specific pattern of missing data was not detected in these cases. Those 41 cases were removed by list-wise deletion from the final study sample to keep the same number of cases in the subsequent data analyses. The portion of the deleted respondents was 8.69% (41/472) and meant that the small amount of missing data was acceptable (< 10%) (Cohen & Cohen, 1983). Therefore, the 431 cases were identified as the final sample size for the study.

Multivariate Normality

Underlying procedures in SEM are based on the assumption of multivariate normality. Multivariate normality means that all the univariate distributions are normal, the joint bivariate distributions of any pair of the variables are normal, and the linear combinations of the variables are normally distributed (Kline, 2005; Tabachnick & Fidell, 1996). Although it is not very practical to test all aspects of multivariate normality, many instances of multivariate nonnormality can be detected by the inspection of univariate distributions (Kline, 2005). Therefore, univariate normality was utilized for the multivariate normality inspection in the study.

Univariate Normality

Univariate normality can be examined by skew and kurtosis (Bollen, 1989). Skew implies that the shape of a unimodal distribution is asymmetrical about the mean of a variable. Positive skew indicates that most of the scores are below the mean, and negative skew indicates that most of the scores are above the mean (Thomson, 2004). Kurtosis represents the peakedness of the distribution (Thomson, 2004). For the

unimodal, symmetrical distribution, positive kurtosis indicates a higher peak and heavier, short tails, and negative kurtosis indicates a lower peak and thin, long tails. The positive kurtosis is described as leptokurtic and the negative kurtosis is described as platykurtic (Tabachnick & Fidel, 1996). The data distribution of variables can be significant skew, kurtosis, or both.

The standardized skew index equals 3.0 (z-score); greater than 3.0 (> 3.0) indicates positive skew; and less than -3.0 (< -3.0) indicates negative skew (Tabachnick & Fidell, 1996). The standardized kurtosis index equals 10.0 (z-score) and kurtosis index greater than 20.0 (> 20.0) may be a high peaked distribution (Kline, 2005), although there is less consensus about the kurtosis index. Normality of variables can be assessed by the graphical method as well as the statistical method. Various transformations can be used to correct nonnormally distributed data.

In this study sample, no significant skew and kurtosis were detected. The skew indexes of the 36 items ranged from -1.58 to .19. The kurtosis indexes of the 36 items ranged from -.1.17 to 3.95. Most of the kurtosis indexes were between -2 and 2, except three variables, SW1 (2.27), RA4 (3.49), and SW3 (3.95). Each of the 36 items for this study had a unimodal, symmetrical, and normal distribution.

Outliers

An outlier is a case with a score which is very different from the rest of cases (Barnett & Lewis, 1985). Outliers are also violations of the normality assumption and can alter the results of the data analysis. A univariate outlier is a case if it has an extreme

(more than three standard deviations beyond the mean) score on a single variable. A multivariate outlier is a case with an extreme score on two or more variables.

Outliers can be detected by utilizing box plots, trimmed means, or Mahalanobis distance. For this study, the examination of box plots was used for the inspection of univariate outliers. A box plot is a graphical representation of the data dispersion embracing the lower quartile (Q_1 , 25th percentile) and the upper quartile (Q_3 , 75th percentile) of the data with the median (Q_2 , 50th percentile). Any case outside the box is considered as a potential outlier (Barnett & Lewis, 1985). The box plot can be used even when the data are not normally distributed, since it depends on the median, not the mean. The Mahalanobis distance was used to examine potential multivariate outliers in the study sample. The Mahalanobis distance is a multidimensional version of a z-score. This statistic indicates the distance of a case from the centroid (the sample mean) of all cases (Tabachnick & Fidell, 1996). The Mahalanobis distance follows a chi-square statistic with degrees of freedom equal to the number of cases. The *p-value* less than .001 ($p < .001$) is recommended for statistical significance in this multivariate outlier test (Kline, 2005). AMOS 16.0 was used to inspect multivariate outliers of the data.

First, the box plots of the 36 variables (see Appendix F) were examined to detect potential univariate outliers. Thirteen items were identified with some univariate outliers: 10 outlier cases on MCB5, 4 cases on SW1, 13 cases on SW2, 13 cases on SW3, 10 cases on RA1, 10 cases on RA2, 10 cases on RA3, 14 cases on RA4, 4 cases on SM1, 4 cases on SM4, 4 cases on CC3, 10 cases on JP5, and 3 cases on OC2. The maximum percentage of the outlier cases among the total in a variable was 3.25% (14/431) and

indicated a small amount of outliers existing in the study sample. The Mahalanobis distance statistics were computed for inspection of multivariate outliers (see Appendix G). Twenty nine multivariate outliers ($p < .001$, Kline, 2005) were observed. The percentage of the outlier cases was 6.73% (29/431) and implied a small amount of outliers incorporated.

The hypothesized model was run with and without multivariate outlier cases; however, the results indicated that the multivariate outliers had no significant effect on the decision of the goodness-of-fit of the model. A small amount of outliers is usually expected in a large sample size (Tabachnick & Fidell, 1996). The original metric can be more meaningful rather than the transformed metric for the interpretation of authentic results (Kline, 2005). Therefore, the relatively small amount of outliers was retained for the future analyses. No data transformation was performed in the study.

Linearity

Multivariate normality implies that relationships among the variables are linear. Differences in skewness for the variables indicate potentials of curvilinearity for some pairs of the variables. Linearity among factors is difficult to assess, while linearity among the pairs of the variables can be assessed by the inspection of bivariate scatterplots. However, the examination of all bivariate scatterplots is impractical. The random spot check on a few plots (Tabachnick & Fidell, 1996) was utilized for the study.

I conducted a random spot check to determine if the relationships among the variables were linear in the study sample. For the practicality of data scanning, ten bivariate scatterplots were selected and examined for multivariable normality. It was

observed that there were linear relationships among the selected ten pairs of the variables. The results of the random scatterplot inspection implied that the linearity assumption was met in the study sample.

Multicollinearity and Singularity

Multicollinearity and singularity occur when variables are too highly correlated (Bollen, 1989; Kline, 2005). In the case of multicollinearity, the variables are extremely highly correlated (greater than .90; $>.90$) and in the case of singularity, the variables are redundant (equal 1.0; $= 1$). Either bivariate or multivariate correlations can create multicollinearity or singularity. Bivariate multicollinearity and singularity can be detected by the inspection of the correlation matrix. On the other hand, detecting multivariate multicollinearity and singularity is more difficult, since multivariate statistics are needed to find the offending variable. One method is to use a squared multiple correlation (SMC) between a variable and all the rest variables. SMC scores greater than .90 ($>.90$) indicate multivariate multicollinearity or singularity (Kline, 2005). A related method is tolerance, which is $1 - \text{SMC}$. Tolerance scores less than .10 ($<.10$) indicate multicollinearity or singularity (Kline, 2005). AMOS 16.0 was used to screen multicollinearity and singularity.

The examination of the correlation matrixes indicated there was neither multicollinearity or singularity identified. All SMC scores (see Appendix H) were less than .90, and all tolerance scores were greater than .10. In addition, the bivariate correlation matrix had no correlation value greater than .90. These results indicated that

all variables in the study were not too highly correlated or redundant. Therefore, no transformation of the related variables was necessary in the study sample.

Data Analysis

The data analyses included descriptive statistics of the data, PCA, reliability estimations, correlation analysis, and SEM using AMOS 16.0. SEM was utilized to investigate the hypothesized theoretical model and structural relationships. SPSS 16.0 was used for descriptive statistics, construct validity, estimates of reliability, and correlation analysis. AMOS 16.0 was used for the SEM analysis. The Sobel calculator was used to examine mediating effects. The details of the analyses and the statistical techniques used for the data analyses are described in the following sections.

Descriptive Statistics

Descriptive statistics included the number of the respondents, the range of the scores, the means, and the standard deviations for all items in the survey instrument.

Principal Component Analysis

Factor analysis is used to uncover the latent factor structure of variables and can be utilized to validate an instrument by demonstrating items load on the same factor (Gorsuch, 1983; Walsh & Betz, 1995). Although the validity of each instrument has been established by researchers in earlier studies, factor analysis was conducted to cross-validate the instruments combined for the study using the sample data. According to Thomson (2004), factors can be extracted by PCA, principal factor analysis, alpha factor analysis, image factor analysis, or canonical factor analysis. The PCA was selected to extract factors or components from the 36 items in the study. The PCA is the most

frequently used factor extraction method and attempts to reproduce the maximum variance in the sample data, rather than the population data (Thomson, 2004).

Since the results of factor extraction are usually difficult for researchers to interpret, rotation, after extraction, is essential to improve interpretability and utility of the results (Gorsuch, 1983). Two representative approaches to factor rotation are orthogonal rotation and oblique rotation (Thomson, 2004). Oblique factor rotation was chosen in the study. Oblique rotation assumes rotated factors are correlated. This assumption offers conceptual advantages better representing the reality of factor correlations. Promax and direct oblimin are two oblique techniques. Direct oblimin technique was selected for the oblique factor rotation in this study. The oblimin technique is used to simplify factors by minimizing the sum of cross-products of squared loadings in the pattern matrix. The oblimin offers a score called *delta* to determine the amount of the correlation between factors: Negative delta scores produce more orthogonal or uncorrelated factors; near zero delta scores produce fairly highly correlated factors; and positive delta scores produce very highly correlated factors. Pattern coefficients in the pattern matrix are used in determining which items meaningfully correlate with the rotated, examined factor. A pattern coefficient of .60 and above ($\geq .60$) is considered meaningful for good PCA studies (Tabachnick & Fidell, 1996).

Reliability Analysis

Reliability analysis was used to determine if the results of using the selected instruments for the study are stable and replicable. According to Walsh and Betz (1995),

reliability is the correlation of an item or an instrument with a hypothetical one, the true measurement, and is a necessary condition of validity although not sufficient. Since the true measurement is not available, reliability is estimated by internal consistency, split-half reliability, test-retest reliability, or inter-rater reliability. Internal consistency was used for estimates of reliability for the study. Cronbach's alpha technique was utilized to examine the internal consistency of the seven instruments. Cronbach's alpha or alpha coefficient was computed for each instrument and all seven instruments combined. Cronbach's alpha greater than .70 ($> .70$) is considered reliable for the internal consistency of the instruments (Kline, 2005).

Correlation Analysis

To examine if there were associations between the factors or latent variables, I used the correlation coefficient (r) for the data analyses in the study. According to McMillan (2000), an absolute correlation coefficient between .10 and .30 is a weak relationship, an absolute correlation between .40 and .60 is a moderate relationship, and .70 and above shows a strong relationship. The critical scores for the correlation coefficient (for two-tailed test) based on the study's sample were .195 at $p = .05$ significance level and .254 at $p = .01$ significance level (Spatz, 2001). The p -value of less than .05 ($< .05$) was used as the criterion statistic of the correlation coefficient to determine if the degree of association was significant.

Structural Equation Modeling

SEM was employed to test the theoretical model and structural relationships hypothesized in the current study. SEM is a multivariate technique for the data analysis

and purposes to determine if the theoretical relationships specified at the conceptualization stage are supported by the data (Diamantopoulos & Siguaaw, 2000). Kline (2005) recommended the procedures of the SEM analysis. The six steps involved in the study were: 1) model specification, which means setting hypotheses in the form of the structural equation model; 2) model identification, which means it is theoretically possible that the computer SEM software obtains estimates of the parameters in the structural equation model; 3) measures selection and data collection; 4) estimation of the model; 5) model respecification if necessary; and 6) analysis report. Two additional future steps can be 7) replication of the results and 8) application of the results.

First, the structural equation model can be specified by two types of variables: an *exogenous variable* which is an independent variable that does not have any explicit, casual variable and an *endogenous variable* which is a variable that has a clear cause variable(s) and it can be a mediation variable as well as a dependent variable (Bollen, 1989). In the current study, while the exogenous variable was *managerial coaching behavior*, the endogenous variables were *satisfaction with work*, *role ambiguity*, *satisfaction with manager*, *career commitment*, *job performance*, and *organization commitment*. However, the mediating variables, *satisfaction with work*, *role ambiguity*, *satisfaction with manager*, *career commitment*, and *organization commitment*, were specified as both exogenous and endogenous variables. Model specifications were conducted in the AMOS graphic, as well.

Second, Bollen (1989) recommends the *two-step rule* for structural equation model identification: 1) to respecify the structural equation model as a CFA

measurement model and 2) to view the structural components as a path model. If both components of the measurement and the structural models are identified respectively, the whole structural equation model is identified. The structural equation model in this study was identified in the two components level of the measurement and the structural models. *Two-step modeling* (Anderson & Gerbing, 1998; Kline, 2005) was conducted to validate the measurement model and to fit the structural model, in that order. There was no alternative structural equation model tested or compared to the original model in this study.

Third, the AMOS 16.0 software was used to test the hypothesized model. The choice of the input matrix and the estimation method involved in the study was the variance-covariance matrix with the *maximum likelihood* (ML) estimation. According to Bollen (1989), the ML estimate is one of the most common methods for estimations of structural path coefficients and model-fitting and carries with it the assumption of multivariate normality.

Fourth, model fit tests were used to determine if the model being tested should be accepted or rejected. If the model is accepted, researchers examine the pattern coefficients of the observed variables and the structural path coefficients of the latent variables. Several goodness-of-fit tests available are provided in Table 14.

Table 14
Fit Indexes

Categories	Descriptions	Fit Indexes
Goodness-of-fit test based on predicted versus observed covariances (absolute fit index)	These tests are based on fitting the hypothesized model to empirical sample moments and rely on the traditional discrepancy functions.	Chi-square (CMIN in the AMOS outputs), relative chi-square (CMIN/DF in the AMOS outputs), Satorra-Bentler scaled chi-square, minimum fit function (FMIN), goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), root mean square residuals (RMSR) or root mean square (RMS), standardized root mean square residual (SRMR), and Hoelter's critical N.
Information theory goodness-of-fit measure (absolute fit index)	These tests assume that the study is designed with more than one model to be compared by the ML estimation. So, they are not interpreted for a single model.	Akaike information criterion (AIC), Bayesian information criterion (BIC), Browne-Cudeck criterion (BCC), expected cross-validation index (ECVI), modified expected cross-validation index (MECVI), and cross-validation index (CVI).
Non-centrality based goodness-of-fit measure	These tests modify tests to examine the proposition that chi-square is greater than zero rather than the common null hypothesis that chi-square is zero.	Noncentrality parameter (NCP), relative non-centrality index (RNI), and centrality index (CI).
Goodness-of-fit tests comparing the given model with a null or an alternative model (incremental fit index)	These tests compare the hypothesized model to another model, usually independence model in the study.	Comparative fit index (CFI), incremental fit index (IFI), normed fit index (NFI), Bentler-Bonett index (BBI), Tucker-Lewis index (TLI) or non-normed fit index (NNIF), Bollen86 fit index, and relative fit index (RFI).
Goodness-of-fit test penalizing for lack of parsimony	These tests penalize for lack of parsimony, since more complex models generate a better fit than less complex models do.	Parsimony ratio (Pratio), parsimony normed fit index (PNFI), PNFI2, parsimony comparative fit index (PCFI), parsimony goodness of fit index (PGFI), parsimony index, root mean square of approximation (RMSEA), and PCLOSE.

Note. Based on Bollen (1989); Hair et al. (2006); Hoyle and Panter (1995); Kline (2005); North Carolina State University (n.d.); and Tabachnick and Fidell (2001).

Hu and Bentler (1998) recommended utilizing fit indexes or tests which have different measurement properties. Jaccard and Wan (1996) suggested the use of at least three fit tests and Kline (2005) suggested the use of four or more fit tests. In this study, four fit tests were selected to determine the adequacy of hypothesized model fit to the sample data: *Relative chi-square* (χ^2/df ; *CMIN/DF* in the AMOS outputs), which is the most fundamental, overall fit index and is sensitive to the sample size (Byrne, 2001; Kline, 2005); *CFI*, which is one of the baseline fit indexes and measures the degree of fit between the hypothesized and the null measurement models (Bentler, 1990); *incremental fit index (IFI)*, which is one of the baseline fit indexes and relatively independent to the sample size (Hu & Bentler, 1998); and *root mean square error of approximation (RMSEA)*, which is a parsimony-adjusted index that means given two models with similar overall explanatory power the simpler model will be preferred and establishes a hypothesis of close fit between the model and the population (Kline, 2005).

The following criteria were used in judging the significance and goodness-of-fit of the hypothesized model. A relative chi-square value of 3 or less (≤ 3) indicates the acceptable goodness-of-fit of the hypothesized model (Bollen, 1989; Kline, 2005); in addition, a non-significant chi-square (χ^2) score ($p > .05$) leads to accepting the hypothesized model and indicates the overall goodness-of-fit of the hypothesized model to the sample data (Byrne, 2001). CFI and IFI scores greater than .90 ($> .90$) are considered as indicating the adequate goodness-of-fit of the hypothesized model (Bollen, 1989; Hu & Bentler, 1998; Kline, 2005). An RMSEA score .08 or less ($\leq .08$) is used to

indicate the acceptable goodness-of-fit of the hypothesized model to the sample data (Browne & Cudeck, 1993).

After estimations of the goodness-of-fit of the theoretical model, the proposed hypotheses regarding structural relationships or paths were examined by regression analysis. The regression analysis is used to describe the nature of the relationship between two variables and provide variance scores which can determine if the independent variable can accurately predict the dependent variable(s) (Pedhazur & Schmelkin, 1991). The standardized regression coefficients were computed with the AMOS 16.0 software. A *p-value* of less than .05 was used as the criterion statistic score of the regression coefficient to determine if the degree of prediction was significant.

Test for Mediation Effects

Mediation analysis was used to examine mediation effects in the study. The Sobel test was utilized to assess the indirect effects of independent latent variables on some dependent latent variables through mediators (Preacher & Hayes, 2004). I used the guidelines of Preacher and Leonardelli (2003) to conduct the Sobel test. The two steps followed in conducting the mediation analysis were: 1) estimating the unstandardized coefficient for the association between the independent latent variable and the mediator, and the standard error pertaining to this association; and 2) estimating the unstandardized coefficient for the association between the mediator and the dependent latent variable, and the standard error pertaining to this association. The Sobel calculator was utilized to estimate the Sobel test score for mediation effects. The *p-value* (for two-

tailed test) of less than .05 ($< .05$) was used as the critical statistic to determine if the mediation effect was significant.

Sample Size

While factor analysis is based on correlations, SEM is based on covariances. Both correlation and covariance are less reliable when estimated from small samples. SEM like factor analysis is a large sample technique, although parameters and chi-square indexes are sensitive to the sample size. Typically, a sample size of 50 is considered as very poor, 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1,000 as excellent for factor analysis (Comrey & Lee, 1982). It is desirable to have at least 300 (Tabachnick & Fidell, 1996), although 150 is sufficient if variables have high pattern coefficients ($> .80$). In many SEM cases, a sample size of 200 is adequate for small and medium models (Boomsma, 1983). Byrne (2001) and Kline (2005) suggested a sample size of less than 100 is small, between 100 and 200 is medium, and more than 200 is considered large for SEM. Alternatively, the ratio between the item and the number of respondents is suggested to be 1:5 (Bentler & Chou, 1987), 1:10, or 1:20 (Jackson, 2003). The establishment of 10 respondents per item (1:10) was the goal for the sample size in the study. The total sample respondents used for the data analysis was 431. The item-responder ratio for the 36 items was 12:1 (c.f. The item-responder ratio for the obtained 31 items was 14:1) in the current study.

Summary

In Chapter III, the design of the study was discussed. The population and sample of the study, the procedures employed for the data collection, and the instruments

utilized to collect data were explained. Further, a detail description of the methods and techniques used in the study to test the hypothesized theoretical model and structural relationships was provided. In Chapter IV, the results of the data analyses conducted in this study will be presented.

CHAPTER IV

RESULTS AND FINDINGS

In this chapter, descriptive statistics, PCA, reliability analysis, correlation analysis, SEM, and Sobel tests are reported. I consulted several guidelines (Hoyle & Panter, 1995; Jackson et al., 2009; McDonald & Ho, 2002; Tabachnick & Fidell, 1996; Thompson, 2004; Walsh & Betz, 1995) to report the analyzed data for the current study. The reporting guidelines checklist used in the study is presented in Table 15.

Descriptive Statistics

SPSS 16.0 was used to compute descriptive statistics for the 36 items. The descriptive statistics are shown in Table 16.

Table 15
Reporting Guidelines Checklist

1. Theoretical formulation
 - 1) Theoretical and/or empirical justification of model and hypothesis tested
 - 2) Characteristics of model tested (e.g. number of model, correlated)
 - 3) Specification of model tested
 - 4) Graphic representation of model tested
 - 5) Specification of alternative model tested if the alternative presented
 - 6) Identification of model tested
 - 7) Characteristics of population and sample (e.g. justification, sampling method, sample size)
2. Data collection
3. Data preparation
 - 1) Scale of observed variables (e.g. interval)
 - 2) Screening data (e.g. nonnormality, outlier, linearity, multicollinearity)
 - 3) Identification of missing data and handling method for addressing them (e.g. list-wise deletion)
 - 4) Description of data transformation if conducted
4. Analysis decision
 - 1) Validity estimation procedure (e.g. principal component analysis, direct oblimin)
 - 2) Reliability estimation procedure (e.g. internal consistency, Chronbach's alpha)
 - 3) Type of matrix analyzed (e.g. correlation, covariance, regression)
 - 4) Matrix included or available upon request
 - 5) Model estimation procedure (e.g. maximum likelihood)
 - 6) Scale of latent variables (e.g. fixed as 1.0)
 - 7) Software and version used (e.g. SPSS 16.0, AMOS 16.0)
5. Instrument Testing
 - 1) Estimates of validity
 - 2) Estimates of reliability
6. Model Evaluation
 - 1) Results of measurement model CFA
 - 2) Results of structural model analysis
 - 3) Including results of multiple fit tests (e.g. relative chi-square, CFI, IFI, RMSEA)
 - 4) Results of hypothesis analysis regarding path
 - 5) Graphic representation of model and hypothesis tested

Note. Based on Hoyle and Panter (1995); Jackson et al. (2009); McDonald and Ho (2002); Tabachnick and Fidell (1996); Thompson (2004); and Waltz and Betz (1995).

Table 16
Descriptive Statistics

Items	Mean	S.D.	Min	Max	N
MCB1 ...uses analogies, scenarios, and examples to help me learn.	4.69	1.74	1	7	431
MCB2 ...broaden my perspective by helping me to see the big picture.	5.03	1.73	1	7	431
MCB3 ...provides me with constructive feedback.	5.11	1.71	1	7	431
MCB4 ...ensure that his/her interactions are helpful to me.	4.96	1.83	1	7	431
MCB5 ... perform my job more effectively.	5.36	1.62	1	7	431
MCB6 ...asks questions, rather than provide solutions.	4.83	1.70	1	7	431
MCB7 ...expectations to the broader goals of the organization.	5.02	1.66	1	7	431
MCB8 ...role-plays with me.	3.50	1.71	1	7	431
SW1 ...satisfied with my job.	5.69	1.35	1	7	431
SW2 (R) ...don't like my job.	5.93	1.35	1	7	431
SW3 ...like working on my current job.	5.88	1.16	1	7	431
RA1 ...know exactly what is expected of me.	5.52	1.42	1	7	431
RA2 ...know that I have divided my time properly.	5.50	1.15	1	7	431
RA3 ...is clear of what has to be done.	5.33	1.52	1	7	431
RA4 ...know what my responsibilities are.	5.84	1.16	1	7	431
RA5 ...goals and objective exist for my job.	5.01	1.69	1	7	431
RA6...feel certain about how much authority I have.	5.10	1.69	1	7	431
SM1 ...respect and fair treatment I receive from my boss.	5.72	1.60	1	7	431
SM2 ...support and guidance I receive from my supervisor.	5.44	1.69	1	7	431
SM3 ...quality of the supervision I receive in my work.	5.44	1.60	1	7	431
CC1 ...like this career too well to give it up.	5.02	1.74	1	7	431
CC2 (R) ...would probably take it.	4.70	1.74	1	7	431
CC3 (R) ...would not choose to work in this profession.	5.61	1.54	1	7	431
CC4 ...want a career for myself in this profession.	5.32	1.49	1	7	431
CC5 ...is the ideal profession for a life's work.	4.98	1.59	1	7	431
JP1 (R) ...overall performance compared to my peers.	5.58	1.10	2	7	431
JP2 (R) ...ability to get along with others compared to my peers.	5.73	1.11	3	7	431
JP3 (R) ...ability to complete tasks on time compared to my peers.	5.74	1.12	2	7	431
JP4 (R) ...quality of performance compared to my peers.	5.78	1.05	4	7	431
JP5 (R) ...achievement of work goals compared to my peers.	5.67	1.08	3	7	431
OC1 ...spend the rest of my career with this organization.	5.38	1.69	1	7	431
OC2 ...feel as if this organization's problems are my own.	4.36	1.81	1	7	431
OC3 (R) ...not feel like "part of the family" at my organization.	4.88	1.89	1	7	431
OC4 (R) ...not feel "emotionally attached" to this organization.	4.88	1.81	1	7	431
OC5 ...has a great deal of personal meaning for me.	5.28	1.55	1	7	431
OC6 (R) ...not feel a strong sense of belonging to my organization.	4.94	1.83	1	7	431

Note. (R) refers to reverse item.

As illustrated in Table 16, the sample in this study included 431 respondents. The means and the standard deviations for each item are shown above. The means for *managerial coaching behavior, satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment* items were 5.30, 4.94, 5.58, 5.05, 5.13, 5.43, and 4.96, respectively. Eleven items (SW2, CC2, CC3, JP1, JP2, JP3, JP4, JP5, OC3, OC4, OC6) were reverse scored.

Results of Principal Component Analysis

As prerequisites for factor analysis, two tests, the Kaiser-Meyer-Olkin (KMO) of sampling adequacy and the Bartlett's test, were conducted to determine if the sample has met the requirements for factor analysis (Andersen & Herbertsson, 2005). The KMO and Bartlett's test scores are provided in Table 17.

Table 17
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.95
Bartlett's Test	Approximate Chi-Square	13,142.82
	df	630.00
	Significance	.00

As shown in Table 17, the KMO score for the 36 items combined was .95 ($> .60$, Kaiser & Rice, 1974), and indicated marvelous sample adequacy ($> .90$, Kaiser & Rice, 1974) to conduct factor analysis. The Barlett's test score was .00 ($< .05$, Pedhazur & Schmelkin, 1991). This meant that the study sample did not have an identity matrix, although Bartlett's test is not necessary if the sample size is large (Pedhazur & Schmelkin, 1991). Considering these criteria, the sample met the adequacy and sphericity needs for factor analysis.

Factor analysis was conducted for the 36 items combined for this study. The PCA was utilized for factor or component extraction and the direct oblimin technique was used for factor rotation. The communality coefficients of the 36 items are shown in Table 18.

Table 18
Communalities

Items	Initial	Extraction
MCB1 ...uses analogies, scenarios, and examples to help me learn.	1.00	.77
MCB2 ...broaden my perspective by helping me to see the big picture.	1.00	.81
MCB3 ...provides me with constructive feedback.	1.00	.84
MCB4 ...ensure that his/her interactions are helpful to me.	1.00	.80
MCB5 ... perform my job more effectively.	1.00	.71
MCB6 ...asks questions, rather than provide solutions.	1.00	.78
MCB7 ...expectations to the broader goals of the organization.	1.00	.73
MCB8 ...role-plays with me.	1.00	.61
SW1 ...satisfied with my job.	1.00	.78
SW2 (R) ...don't like my job.	1.00	.67
SW3 ...like working on my current job.	1.00	.73
RA1 ...know exactly what is expected of me.	1.00	.77
RA2 ...know that I have divided my time properly.	1.00	.56
RA3 ...is clear of what has to be done.	1.00	.77
RA4 ...know what my responsibilities are.	1.00	.75
RA5 ...goals and objective exist for my job.	1.00	.70
RA6...feel certain about how much authority I have.	1.00	.56
SM1 ...respect and fair treatment I receive from my boss.	1.00	.75
SM2 ...support and guidance I receive from my supervisor.	1.00	.84
SM3 ...quality of the supervision I receive in my work.	1.00	.82
CC1 ...like this career too well to give it up.	1.00	.75
CC2 (R) ...would probably take it.	1.00	.52
CC3 (R) ...would not choose to work in this profession.	1.00	.38
CC4 ...want a career for myself in this profession.	1.00	.75
CC5 ...is the ideal profession for a life's work.	1.00	.78
OC1 ...spend the rest of my career with this organization.	1.00	.70
OC2 ...feel as if this organization's problems are my own.	1.00	.59
OC3 (R) ...not feel like "part of the family" at my organization.	1.00	.74
OC4 (R) ...not feel "emotionally attached" to this organization.	1.00	.78
OC5 ...has a great deal of personal meaning for me.	1.00	.70
OC6 (R) ...not feel a strong sense of belonging to my organization.	1.00	.76
JP1 (R) ...overall performance compared to my peers.	1.00	.77
JP2 (R) ...ability to get along with others compared to my peers.	1.00	.59
JP3 (R) ...ability to complete tasks on time compared to my peers.	1.00	.76
JP4 (R) ...quality of performance compared to my peers.	1.00	.83
JP5 (R) ...achievement of work goals compared to my peers.	1.00	.85

Note. Extraction method: principal component analysis.

As presented in Table 18, all communalities coefficients, except one (.38), are greater than .50 ($> .30$, Falk & Miller, 1992). It indicated that all 36 items are well represented in the common factor space since their communalities are reported as above .30. The eigenvalue greater than 1 ($EV > 1$; Kaiser, 1960) and the scree plot with the elbow point (Cattell, 1966) rules were used for factor retention criteria. The eigenvalue total variance explained for each factor is provided in Table 19. The scree plot for the 36 items, showing the sorted eigenvalues, is depicted in Figure 5.

Table 19
Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	14.74	40.96	40.96	14.74	40.96	40.96	12.49
2	3.86	10.73	51.68	3.86	10.73	51.68	3.84
3	3.37	9.35	61.04	3.37	9.35	61.04	4.87
4	1.73	4.81	65.84	1.73	4.81	65.84	7.63
5	1.20	3.34	69.19	1.20	3.34	69.19	8.22
6	1.07	2.97	72.16	1.07	2.97	72.16	6.30
7	.87	2.41	74.57				
8	.70	1.94	76.51				
9	.61	1.70	78.21				
10	.58	1.61	79.82				
11	.55	1.52	81.34				
12	.49	1.35	82.69				
13	.48	1.32	84.01				
14	.44	1.22	85.23				
15	.43	1.19	86.42				
16	.41	1.15	87.57				

Table 19 (continued)

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
17	.36	1.00	88.56				
18	.34	.95	89.51				
19	.33	.92	90.43				
20	.32	.88	91.31				
21	.30	.84	92.16				
22	.29	.80	92.95				
23	.27	.76	93.71				
24	.25	.70	94.40				
25	.24	.67	95.07				
26	.23	.63	95.70				
27	.22	.61	96.31				
28	.21	.57	96.88				
29	.19	.54	97.42				
30	.17	.46	97.87				
31	.16	.45	98.32				
32	.14	.40	98.72				
33	.14	.39	99.11				
34	.12	.34	99.45				
35	.11	.31	99.75				
36	.09	.25	100.00				

Note. Extraction method: principal component analysis.

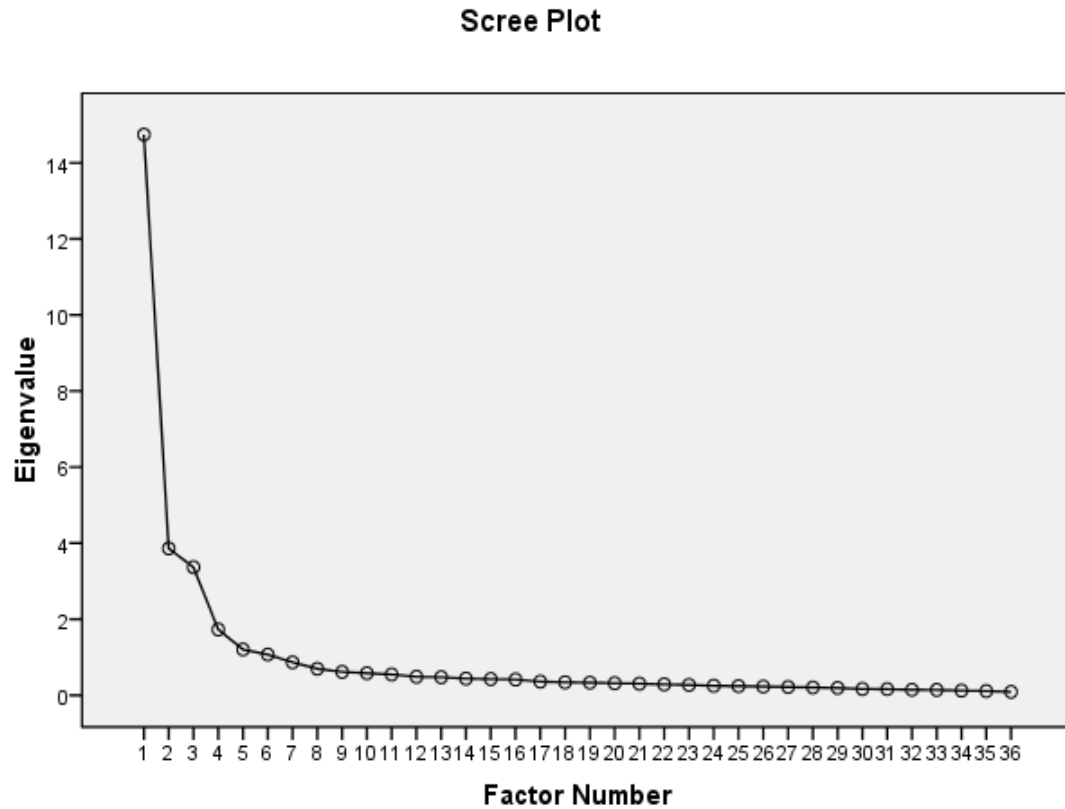


Figure 5. Scree plot.

As shown in Table 19, the survey combined for the study had six significant factors, which had an eigenvalue greater than 1.00. The first factor had an eigenvalue of 14.74 and explained 40.96% of the total variance, followed by the second factor with an eigenvalue of 3.86 and 10.73% of the total variance. The six factors with an eigenvalue greater than 1.00 explained 72.16% of the total variance. The scree plot in Figure 5 also had the same result in factor retention. For further investigation of the PCA, the pattern

matrix coefficients were used to examine the factors because an oblique rotation technique was chosen in the current study. The pattern matrix with pattern coefficients equal to .60 or greater than .60 ($\geq .60$, Tabachnick & Fidell, 1996) is provided in Table 20.

Table 20
Pattern Matrix

	Factor					
	1	2	3	4	5	6
MCB1	.93					
MCB2	.88					
MCB3	.89					
MCB4	.89					
MCB5	.73					
MCB6	.87					
MCB7	.79					
MCB8	.75					
SW1						-.64
SW2 (R)						-.63
SW3						-.62
RA1				.80		
RA2				.72		
RA3				.69		
RA4				.85		
RA5						
RA6						
SM 1	.63					
SM 2	.78					
SM 3	.71					
CC1			.71			
CC2 (R)						

Table 20 (continued)

	Factor					
	1	2	3	4	5	6
CC3 (R)						
CC4			.83			
CC5			.85			
JP1 (R)		.87				
JP2 (R)		.77				
JP3 (R)		.87				
JP4 (R)		.91				
JP5 (R)		.91				
OC1						
OC2					-.71	
OC3 (R)					-.72	
OC4 (R)					-.87	
OC5					-.61	
OC6 (R)					-.80	

Note. Extraction method: principal component analysis.

Rotation method: oblimin with Kaiser normalization.

As indicated in Table 20, the six factors contained 31 items ($\geq .60$). The first factor held eleven items (MCB1, MCB2, MCB3, MCB4, MCB5, MCB6, MCB7, MCB8, SM1, SM2, SM3); eight *managerial coaching behavior* items loaded together with three *satisfaction with manager* items. The pattern coefficients or factor loading values of the eleven items ranged from .63 to .93. These eleven items under the first factor were considered closely associated with one another in that they reflected an effective managerial leadership practice, more specifically managerial coaching relevant issues in organizations. MCB1 measured if a manager practiced using analogies, scenarios, and examples in one's coaching employees; MCB2 measured if a manager practiced

broadening employee perspectives by helping employees see a bigger picture; MCB3 measured if a manager practiced providing constructive feedback to employees; MCB4 measured if a manager practiced soliciting feedback from employees; MCB5 measured if a manager practiced being a resource and removing obstacles; MCB 6 measured if a manager practiced asking questions to encourage employees to think through issues by holding back instead providing answers and transferring ownership to employee; MCB 7 measured if a manager practiced setting and communicating expectations; MCB8 measured if a manager practiced promoting different perspectives in employees; SM1 measured if a manager practiced exhibiting respect and fair treatment to employees; SM2 measured if a manager practiced providing support and guidance to employees; and SM3 measured if a manager practiced offering the high quality of supervision to employees. This investigation of the items revealed that they were interrelated and reflected multi-aspects or characteristics of managerial coaching (see Table 3 *Managerial Coaching Competencies* in Chapter II), although the three items (SM1, SM2, SM3) were supposed to measure a different, separated factor. Since the *managerial coaching* has more items, stronger relationships, and higher pattern coefficients on the first factor, it was considered reasonable that *managerial coaching* would embrace *satisfaction with manager*. Based on the common characteristics of the eleven items, the first factor was labeled *managerial coaching* (MC). These findings indicated the construct validity of the *managerial coaching behavior* factor or instrument (Ellinger et al., 2003) has not solidly established yet.

The second factor had five items (JP1, JP2, JP3, JP4, JP5). The pattern coefficients of these five items ranged from .77 to .91. These five items reflected job performance relevant issues among employees. JP1 measured employee overall job performance; JP2 measured an interpersonal relationship aspect of job performance; JP3 measured a time efficiency aspect of job performance; JP4 measured a quality aspect of job performance; JP5 measured an achievement aspect of job performance. Based on these common characteristics of the items, the second factor was labeled *job performance* (JP). These findings indicated the reasonable construct validity of the *job performance* factor or instrument, as another researcher (Carden, 2007) reported in an earlier study.

The third factor possessed three items (CC1, CC4, CC5). The pattern coefficients of these three items ranged from .71 to .85. The three items under the third factor were closely associated to one another in that they reflected individual commitment to their career and profession. For example, CC1 was “I like this career too well to give it up”; CC4 was “I definitely want a career for myself in this profession”; and CC5 was “This is the ideal profession for a life’s work.” Based on this common characteristic of the items, the third factor was labeled *career commitment* (CC). These findings implied the reasonable construct validity of the *career commitment* factor or instrument, as other researchers reported in the earlier studies (Cohen 1996; Cohen, 1999).

The fourth factor had four items (RA1, RA2, RA3, RA4). The pattern coefficients of these four items ranged from .69 to .85. The four items under the fourth factor were related to employee role clarity and understanding on their job. For example, RA1

measured employee understanding of manager's expectations on their role and job in organizations; RA2 measured employee time allocation to conduct their expected role and job; RA3 measured the given explanation about employee role and responsibilities; and RA4 measured employee knowledge about their role and responsibilities. Based on these common characteristics of the items, the fourth factor was labeled *role clarity* (RC). These findings indicated the reasonable construct validity of the *role clarity* factor or instrument, as other researchers reported in earlier studies (Harris & Bladen, 1994; Netemeyer et al., 1995; Smith et al., 1993).

The fifth factor contained five items (OC2, OC3, OC4, OC5, OC6). The pattern coefficients of these five items ranged from -.61 to -.87. The five items under the fifth factor reflected employee commitment to their organization. OC2 measured employee ownership to their organization's problem; OC3 and OC6 measured employee belonging and involvement to their organization; OC4 measured employee emotional attachment to their organization; and OC5 measured employee meaning making with their organization. Based on these common characteristics of the items, the fifth factor was labeled *organization commitment* (OC). These findings indicated the reasonable construct validity of the *organization commitment* factor or instrument, as other researchers reported in the earlier studies (Allen & Meyer, 1990; Cohen, 1999; Hackett et al., 1994; Somers, 1995).

The sixth factor had three items (SW1, SW2, SW3). The pattern coefficients of these three items ranged from -.62 to -.64. The three items under the sixth factor were related to one another in that they reflected employee satisfaction with their work in

organizations. SW1 was “All in all, I am satisfied with my job”; SW2 was “In general, I don’t like my job; and SW3 was “In general, I like working at my current job.” Based on the common characteristics of these items, the sixth factor was labeled *satisfaction with work* (SW). These findings indicated the reasonable construct validity of the *satisfaction with work factor* or instrument, as other researchers reported in earlier studies (George, 1995; McLain, 1995; Sanchez et al., 1999; Siegall & McDonald, 1995).

In conclusion, based on the common characteristics of the items, the six factors were labeled *managerial coaching* (MC), *job performance* (JP), *career commitment* (CC), *role clarity* (RC), *organization commitment* (OC), and *satisfaction with work* (SW), respectively. Satisfaction with manger was incorporated in the new, hybrid factor of managerial coaching. Five items (RA5, RA6, CC2, CC3, OC1) did not load ($< .60$) on any factor; hence, they were not included in further analyses. The obtained six factors and 31 items are shown in Figure 6. In addition, common method biases have often been raised in critiques of cross-sectional studies (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Findings from factor analyses in this study (see Tables 19 and 20), a recommended approach to determining common method biases (Podsakoff et al., 2003), indicated no common method concern for the study reported herein.

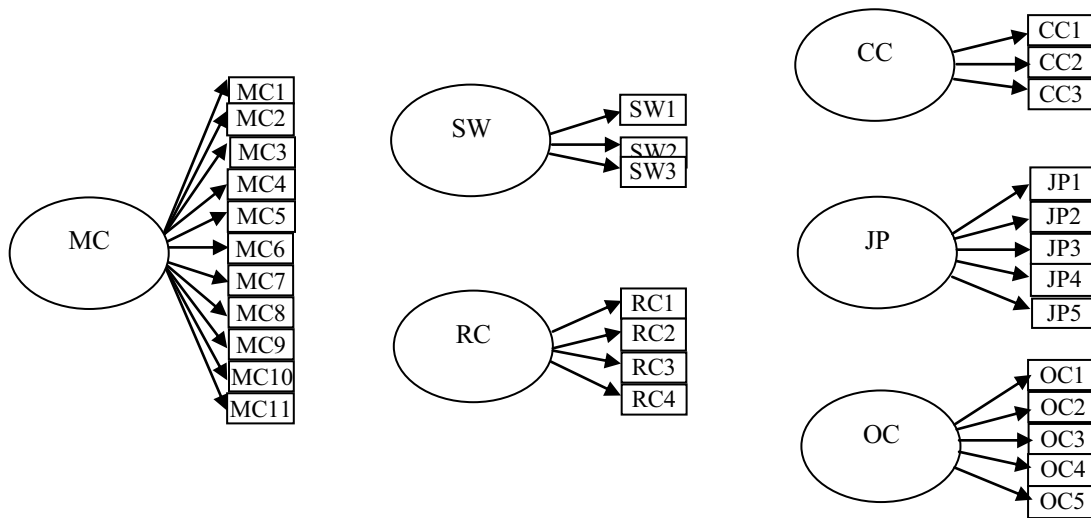


Figure 6. Obtained six factors and 31 items.

Item-respondent Ratio for Obtained 31 Items

The study used the 31 items, since the PCA with the .60 cut-off of the pattern coefficient resulted in dropping five items. The 431 respondents were considered as the final study sample, as I removed 41 (8.69%) respondents by list-wise deletion to keep the same number of the respondents in all analyses. Therefore, the item-respondent ratio employed for the current study was 1:14 (31:431), and exceeded the suggested sample size of 1:5 (Bentler & Chou, 1987) and 1:10 (Jackson, 2003).

Estimates of Reliability II

Reliability estimation was conducted for the obtained six factors. The reliability estimates were computed for *managerial coaching*, *satisfaction with work*, *role clarity*, *career commitment*, *job performance*, and *organization commitment* using the

Cronbach's alpha technique. The results of the reliability analysis are provided in Table 21.

Table 21
Estimates of Reliability II

Factors	N of Items	Cronbach's Alpha
<i>Managerial Coaching</i>	11	.97
<i>Satisfaction with Work</i>	3	.87
<i>Role Clarity</i>	4	.85
<i>Career Commitment</i>	3	.86
<i>Job Performance</i>	5	.92
<i>Organization Commitment</i>	5	.87
(Overall)	31	.95

As indicated in Table 21, the six factors were found to be reliable. Cronbach's alpha for all factors exceeded .85 ($> .70$, Kline, 2005) and indicated that at least 85% of the total variance was systematic and reliable. The Cronbach's alpha if item deleted was computed to determine if there existed a bad item causing the significant decrease of the internal consistency among each of the six factors. The Cronbach's alpha if item deleted is provided in Table 22.

Table 22
Cronbach's Alpha if Item Deleted II

Factors	Items	Cronbach's Alpha if Item Deleted	Cronbach's Alpha if Item Included
<i>Managerial</i>	MC1 ...uses analogies, scenarios, and examples to help me learn.	.96	.97
<i>Coaching</i>	MC2 ...broaden my perspective by helping me to see the big picture.	.96	.97
	MC3 ...provides me with constructive feedback.	.96	.97
	MC4 ...ensure that his/her interactions are helpful to me.	.96	.97
	MC5 ... perform my job more effectively.	.96	.97
	MC6 ...asks questions, rather than provide solutions.	.96	.97
	MC7 ...expectations to the broader goals of the organization.	.96	.97
	MC8 ...role-plays with me.	.97	.97
	MC9 ...respect and fair treatment I receive from my boss.	.96	.97
	MC10 ...support and guidance I receive from my supervisor.	.97	.97
	MC11 ...quality of the supervision I receive in my work.	.96	.97
<i>Satisfaction with Work</i>	SW1 ...satisfied with my job.	.74	.87
	SW2 (R) ...don't like my job.	.90	.87
	SW3 ...like working on my current job.	.80	.87
<i>Role Clarity</i>	RC1 ...know exactly what is expected of me.	.76	.85
	RC2 ...know that I have divided my time properly.	.88	.85
	RC3 ...is clear of what has to be done.	.79	.85
	RC4 ...know what my responsibilities are.	.78	.85
<i>Career Commitment</i>	CC1 ...like this career too well to give it up.	.84	.86
	CC2 ...want a career for myself in this profession.	.80	.86
	CC3 ...is the ideal profession for a life's work.	.77	.86
<i>Job Performance</i>	JP1 (R) ...overall performance compared to my peers.	.89	.92
	JP2 (R) ...ability to get along with others compared to my peers.	.93	.92
	JP3 (R) ...ability to complete tasks on time compared to my peers.	.90	.92
	JP4 (R) ...quality of performance compared to my peers.	.88	.92

Table 22 (continued)

Factors	Items	Cronbach's Alpha if Item Deleted	Cronbach's Alpha if Item Included
	JP5 (R) ...achievement of work goals compared to my peers.	.88	.92
<i>Organization</i>	OC1 ...feel as if this organization's problems are my own.	.87	.87
<i>Commitment</i>	OC2 (R) ...not feel like "part of the family" at my organization.	.85	.87
	OC3 (R) ...not feel "emotionally attached" to this organization.	.83	.87
	OC4 ...has a great deal of personal meaning for me.	.86	.87
	OC5 (R) ...not feel a strong sense of belonging to my organization.	.83	.87

Note. (R) refers to reverse item.

As shown in Table 22, no bad item was identified. All six factors had Chronbach's alpha value of .74 or above ($> .70$, Kline, 2005) when any one item was deleted from the factor. Most of items deleted led to lower or equal Chronbach's alpha, and it indicated they were good items contributing to stronger internal consistency. Although three items if deleted led to slightly higher Chronbach's alpha (SW2 .87 \rightarrow .90; RC2 .85 \rightarrow .88; JP2 .92 \rightarrow .93), they were not considered critical since their changes were small and the factors, which these three items loaded to, already had high alpha values ($> .70$, Kline, 2005). Therefore, the estimates of reliability demonstrate that the 31 items were good items contributing to strong internal consistency and the items for each of the obtained six factors had excellent reliability. The hypothesized model, regarding the obtained six factors and 31 items, of managerial coaching outcomes is provided in Figure 7.

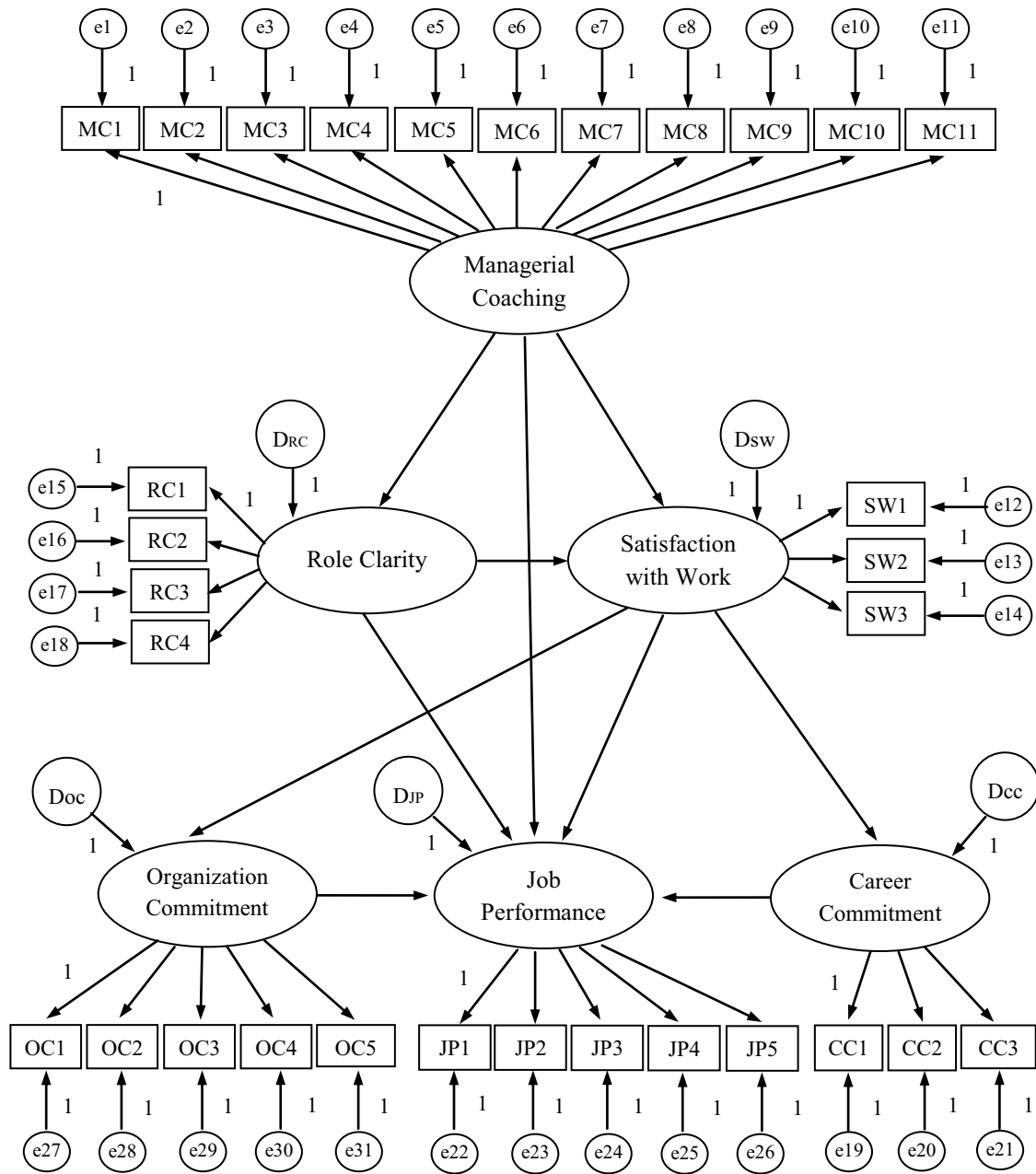


Figure 7. Hypothesized model of managerial coaching outcomes: the default SEM.

Results of Correlation Analysis

The bivariate correlations (r) between and among *managerial coaching*, *satisfaction with work*, *role clarity*, *career commitment*, *job performance*, and *organization commitment* were examined. The critical value for the correlations (for two-tailed) based on the sample of the current study was .195 at $p = .05$ significant level (Spatz, 2001). The correlation coefficients of the Pearson's r values are provided in Table 23.

Table 23
Bivariate Correlations

		MC	SW	RC	CC	JP	OC
MC	Pearson Correlation	1.00					
	Sig. (2-tailed)						
SW	Pearson Correlation	.63***	1.00				
	Sig. (2-tailed)	.00					
RC	Pearson Correlation	.64***	.57***	1.00			
	Sig. (2-tailed)	.00	.00				
CC	Pearson Correlation	.34***	.50***	.29***	1.00		
	Sig. (2-tailed)	.00	.00	.00			
JP	Pearson Correlation	.02	.03	.10*	.05	1.00	
	Sig. (2-tailed)	.72	.48	.03	.30		
OC	Pearson Correlation	.58***	.58***	.39***	.56***	.03	1.00
	Sig. (2-tailed)	.00	.00	.00	.00	.52	

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

As indicated in Table 23, six correlations in the hypothesized model were significant ($p < .05$, Spatz, 2001). The correlation between *managerial coaching* and *satisfaction with work* was significant: there was a moderate positive relationship ($< .70$, McMillan, 2000) between these two. The correlation between *managerial coaching* and *role clarity* was significant: there was a moderate positive relationship ($< .70$) between the two. The correlation between *managerial coaching* and *job performance* was not significant. And, the correlation between *role clarity* and *satisfaction with work* was significant: there was a moderate positive relationship ($< .70$) between the two. The correlation between *role clarity* and *job performance* was significant: there was a weak positive relationship ($< .30$, McMillan, 2000) between the two. Next, the correlation between *satisfaction with work* and *career commitment* was significant: there was a moderate positive relationship ($< .70$) between these two. The correlation between *satisfaction with work* and *job performance* was not significant. The correlation between *satisfaction with work* and *organization commitment* was significant: there was a moderate positive relationship ($< .70$) between the two. Last, the correlation between *career commitment* and *job performance* was not significant. The correlation between *organization commitment* and *job performance* was not significant. The other five correlations (between *managerial coaching* and *satisfaction with manager*, between *role clarity* and *satisfaction with manager*, between *satisfaction with manager* and *career commitment*, between *satisfaction with manager* and *job performance*, and between *satisfaction with manager* and *organization commitment*) were not examined, since

satisfaction with manager was not identified as an independent factor from the results of the PCA in the study.

Results of Structural Equation Modeling

SEM was conducted to examine if the theoretical model hypothesized at the conceptualization stage are supported by the data of the study sample (Diamantopoulos & Siguaw, 2000; Kline, 2005). The *two-step rule* (Bollen, 1989) was applied for structural equation model identification. First, the hypothesized structural equation model was respecified as a CFA measurement model. And, the structural component was viewed as a structural model regarding hypothesized relationships or paths. *Two-step modeling* (Anderson & Gerbing, 1998; Kline, 2005) was conducted to validate the CFA measurement model and then, to determine the goodness-of-fit of the structural model. Both models were identified using AMOS 16.0 and estimated by multiple fit indexes: Relative chi-square, CFI, IFI, and RMSEA.

Results of CFA Measurement Modeling

In this section, estimations of the CFA measurement model are reported. The results of the relative chi-square are provided in Table 24.

Table 24
CMIN/DF (Relative Chi-square): CFA Measurement Modeling

Fit Index	NPAR	CMIN (χ^2)	DF	P	CMIN(χ^2)/DF
Default Model	108	1,406.43	419	.00	3.36

As presented in Table 24, relative chi-square results, the CFA measurement model had a relative chi-square (χ^2/df , *CMIN/DF* in this AMOS outputs) greater than 3;

the relative chi-square was 3.36 (χ^2 : 1,406.43; df : 419; $p = .00$). It indicated the CFA measurement model might have the lack of the goodness-of-fit ($\chi^2/df \leq 3$, Kline, 2005). Although the relative chi-square did not indicate the adequate goodness-of-fit of the CFA measurement model to the data, these results were not pervasive in the study since these chi-square (χ^2) relevant fit indexes are sensitive to large sample sizes (Hair et al., 2006). To make a holistic evaluation of the CFA measurement model fit, three other fit indexes were further examined. The results of these tests are provided in Table 25.

Table 25
CFI, IFI, and RMSEA: CFA Measurement Modeling

Fit Index	CFI	IFI	RMSEA
Default Model	.91	.91	.07

As reported in Table 25, the CFA measurement model was sufficiently supported by the empirical data in the study. In this six factor model, these three fit indexes exceeded the criteria for the goodness-of-fit; CFI was greater than .90 ($> .90$); IFI was greater than .90 ($> .90$); and RMSEA was .08 or less ($\leq .08$), with a 90% confidence interval of .07 - .08 (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2001; Hu & Bentler, 1998; Kline, 2005). Therefore, the CFA measurement model indicated an acceptable fit by these indexes.

In addition, the model was identified as multidimensional with reasonable discriminant validity between the factors and convergent validity among the items of each factor. All items had a standardized regression coefficient or factor loading value greater than .60 except RC2 (.52), and these values exceeded a recommended criterion

of .32 or greater (Comrey & Lee, 1992) for the convergent validity. The standardized factor correlation coefficients ranged from .00 to .71, and these values were consistent with the discriminant validity ($\leq .90$, Tabachnick & Fidell, 1996).

Results of Structural Modeling

Since the CFA measurement model was identified, estimations of the structural relationships within the hypothesized structural model were conducted. In this section, the structural model estimates are reported. The results of the relative chi-square are provided in Table 26.

Table 26
CMIN/DF (Relative Chi-square): Structural Modeling

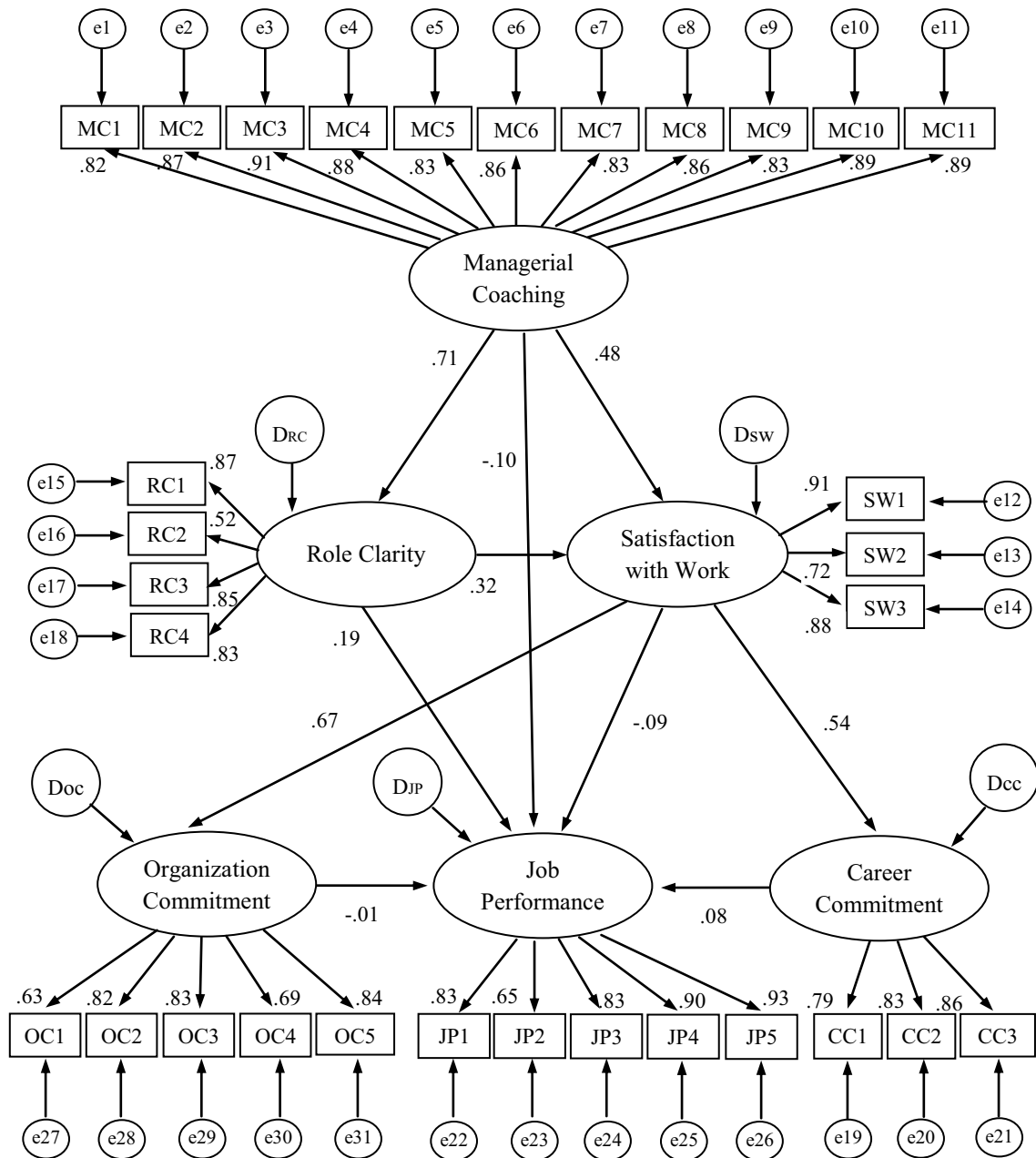
Model	NPAR	CMIN (χ^2)	DF	P	CMIN(χ^2)/DF
Structural Model	103	1,497.38	424	.00	3.53

As presented in Table 26, the structural model had a relative chi-square (χ^2/df , *CMIN/DF* in this AMOS outputs) greater than 3; the relative chi-square was 3.53 (χ^2 : 1,497.38; *df*: 424; *p* = .00). Although it indicated the structural model might have the lack of the goodness-of-fit ($\chi^2/df \leq 3$, Kline, 2005), these results were not pervasive as in the CFA measurement model estimations since these chi-square (χ^2) relevant fit indexes are sensitive to large sample sizes (Hair et al., 2006). To make a holistic evaluation of the model fit, three other fit indexes were examined. The results of these tests are provided in Table 27.

Table 27
CFI, IFI, and RMSEA: Structural Modeling

Fit Index	CFI	IFI	RMSEA
Structural Model	.91	.91	.08

As reported in Table 27, the structural model was sufficiently supported by the empirical data in the study. In the six factor model, CFI was greater than .90 ($> .90$); IFI was greater than .90 ($> .90$); and RMSEA was .08 or less than .08 ($\leq .08$), with a 90% confidence interval of .07-.08 (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2001; Hu & Bentler, 1998; Kline, 2005). Therefore, the structural model indicated an acceptable fit by these indexes. These results were identical to those reported earlier for the CFA measurement model. The results of the SEM analysis are shown in Figure 8.



Note. Standardized Estimates.

Figure 8. Hypothesized model of managerial coaching outcomes: the SEM analyzed.

Estimates of Regression

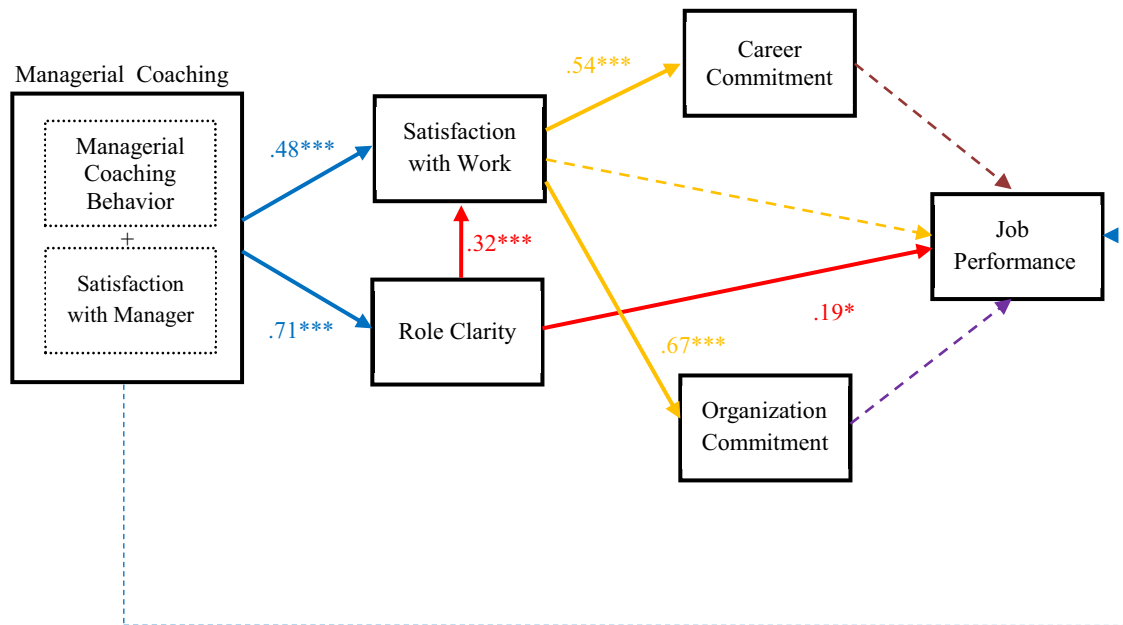
To further investigate paths between and among the factors in the hypothesized model, regression estimates (for two-tailed) were examined. The regression estimates were also used to examine the predictability of the exogenous factor or the independent factor (Tabachnick & Fidell, 2001). Except *managerial coaching* and *job performance*, all other factors in the study, *satisfaction with work*, *role clarity*, *career commitment*, and *organization commitment*, were analyzed as both exogenous and endogenous factors. *Managerial coaching* was examined solely as an exogenous factor, while *job performance* was solely as an endogenous factor. A *p-value* of less than .05 ($< .05$) was used as the criterion to determine if the degree of prediction was significant. Several of these estimates were significant even at the $< .001$ level. The estimates of regression are provided in Table 28.

Table 28
Estimates of Standardized Regression

		Estimate	S.E.	P
SW	<--- MC	.48	.05	.00***
RC	<--- MC	.71	.04	.00***
JP	<--- MC	-.10	.06	.23
SW	<--- RC	.32	.06	.00***
JP	<--- RC	.19	.06	.02*
CC	<--- SW	.54	.06	.00***
JP	<--- SW	-.09	.08	.45
OC	<--- SW	.67	.06	.00***
JP	<--- CC	.08	.05	.23
JP	<--- OC	-.01	.06	.94

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

As shown in Table 28, *managerial coaching* was found to be a significant predictor of *satisfaction with work* ($\beta = .48, p < .001$); Hypothesis 2a was supported. *Managerial coaching* was found to be a significant predictor of *role clarity* ($\beta = .71, p < .001$); Hypothesis 2b was supported. *Managerial coaching* was not found to be a significant predictor of *job performance*. Hence, Hypothesis 1 was not supported. Next, *role clarity* was found to be a significant predictor of *satisfaction with work* ($\beta = .32, p < .001$); Hypothesis 3a was supported. *Role clarity* was found to be a significant predictor of *job performance* ($\beta = .19, p < .05$); Hypothesis 3b was supported. And, *satisfaction with work* was found to be a significant predictor of *career commitment* ($\beta = .54, p < .001$); Hypothesis 4a was supported. *Satisfaction with work* was not found to be a significant predictor of *job performance*. Hence, Hypothesis 4b was not supported. *Satisfaction with work* was found to be a significant predictor of *organization commitment* ($\beta = .67, p < .001$); Hypothesis 4c was supported. *Career commitment* was not found to be a significant predictor of *job performance*. Hence, Hypothesis 6 was not supported. Last, *organization commitment* was not found to be a significant predictor of *job performance*. Hence, Hypothesis 7 was not supported. In this six factor model, initial Hypotheses 2c, 3c, 5a, 5b, 5c were not examined, since the research model regarding the obtained factors and items did not identify *satisfaction with manager* as an independent factor. The schematic representation of the hypothesized structural equation model analysis is shown in Figure 9.



Standardized estimates; \longrightarrow significant path; $-\ - - \longrightarrow$ non-significant path; $*p < .05$; $***p < .001$.

Figure 9. Schematic representation of hypothesized SEM.

Test for Mediation Effects

The Sobel test (for two-tailed) was conducted to test the seven mediation effects, *role clarity on satisfaction with work*, *role clarity on job performance*, *satisfaction with work on career commitment*, *satisfaction with work on job performance*, *satisfaction with work on organization commitment*, *career commitment on job performance*, and *organization commitment on job performance*. A *p-value* of less than .05 ($< .05$) was used as the criterion statistic to determine if the mediation effect was significant. The schematic representation of the mediation effects of *role clarity* is provided in Figure 10.

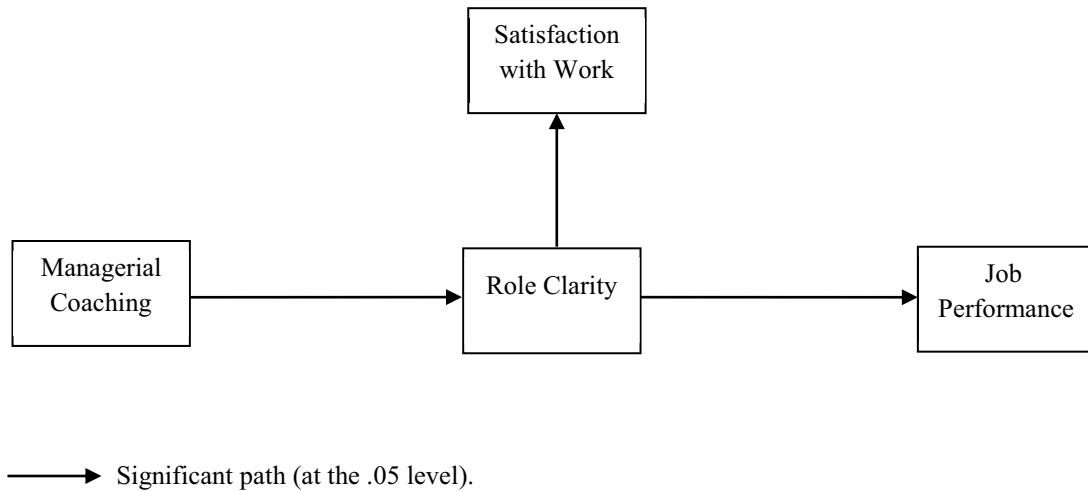


Figure 10. Schematic representation of mediation effects of *role clarity*.

As indicated in Figure 10, *role clarity* had mediating effects on *satisfaction with work* and *job performance*. The Sobel test statistic for the mediating effect of *role clarity* on *satisfaction with work* was 5.03, which was found to be significant ($p < .05$). This suggested that *role clarity* mediated the relationship between *managerial coaching* and *satisfaction with work*. The Sobel test statistic for the mediating effect of *role clarity* on *job performance* was 2.31, which was found to be significant ($p < .05$). This suggested *role clarity* mediated the relationship between *managerial coaching* and *job performance*. The schematic representation of the mediation effects of *satisfaction with work* is illustrated in Figure 11.

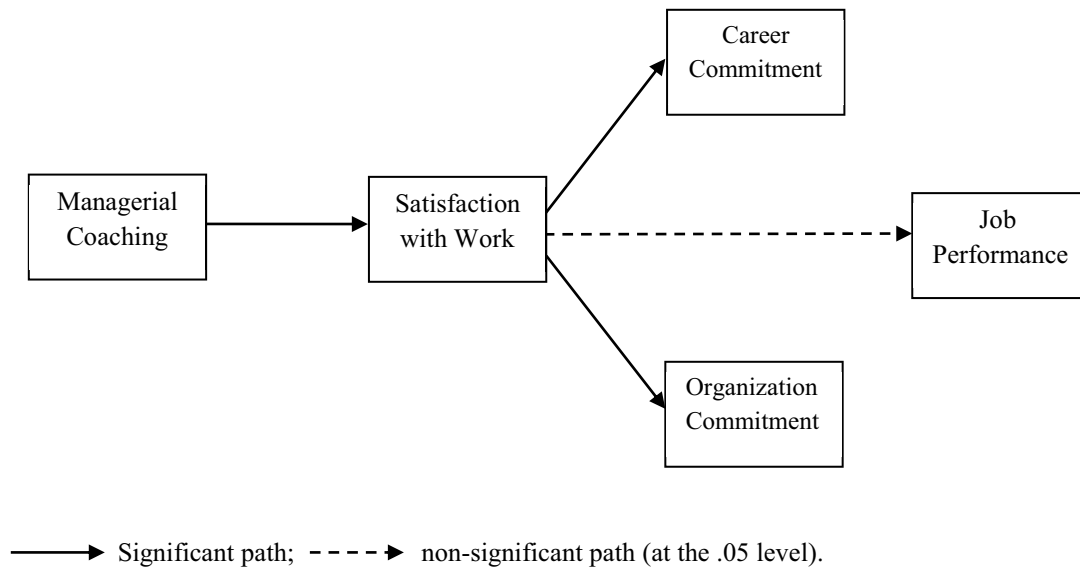


Figure 11. Schematic representation of mediation effects of *satisfaction with work*.

As shown in Figure 11, *satisfaction with work* had mediating effects on *career commitment* and *organization commitment*. The Sobel test statistic for the mediating effect of *satisfaction with work* on *career commitment* was 6.43, which was found to be significant ($p < .05$). This suggested *satisfaction with work* mediated the relationship between *managerial coaching* and *career commitment*. The Sobel test statistic for the mediating effect of *satisfaction with work* on *job performance* was -0.74, which was found to be not significant ($p \geq .05$). This suggested *satisfaction with work* did not mediate the relationship between *managerial coaching* and *job performance*. The Sobel test statistic for the mediating effect of *satisfaction with work* on *organization commitment* was 6.52, which was found to be significant ($p < .05$). This suggested

satisfaction with work mediated the relationship between *managerial coaching* and *organization commitment*. The schematic representation of the mediation effects of *career commitment* and *organization commitment* is presented in Figure 12.

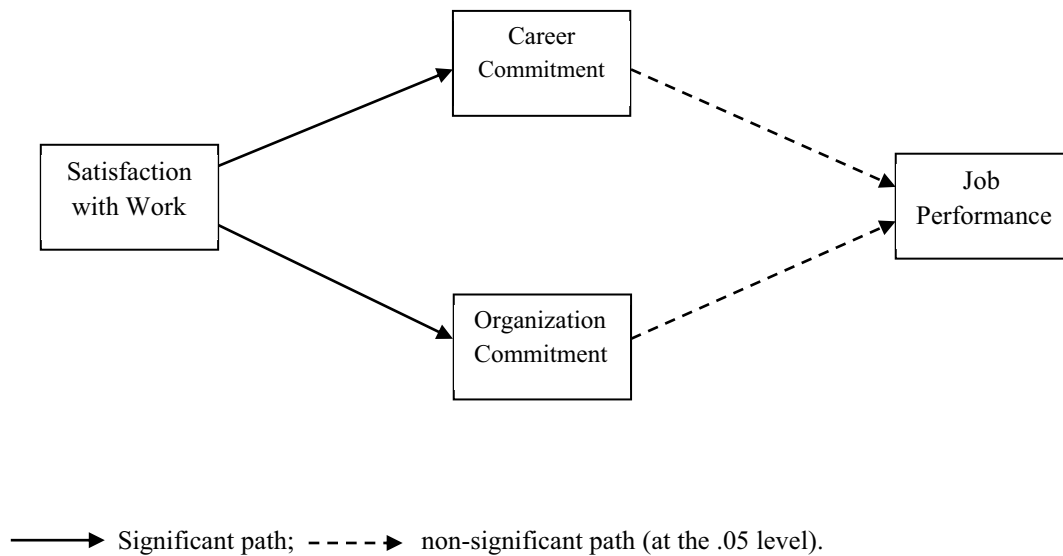


Figure 12. Schematic representation of mediation effects of *career commitment* and *organization commitment*.

As shown in Figure 12, neither *career commitment* nor *organization commitment* had a mediating effect on *job performance* in the present study. The Sobel test statistic for the mediating effect of *career commitment* on *job performance* was 1.00, which was found to be not significant ($p \geq .05$). This suggested *satisfaction with work* did not mediate the relationship between *satisfaction with work* and *job performance*. The Sobel test statistic for the mediating effect of *organization commitment* on *job performance*

was -.17, which was found to be not significant ($p \geq .05$). This suggested *satisfaction with work* did not mediate the relationship between *satisfaction with work* and *job performance*. In conclusion, the Sobel test scores confirmed the four mediating effects, *role clarity on satisfaction with work*, *role clarity on job performance*, *satisfaction with work on career commitment*, and *satisfaction with work on organization commitment*, in the current study.

Summary

The results from PCA, estimates of reliability, correlation analysis, SEM, and Sobel tests provide some very useful insights about the relationships between and among the factors or variables in the study. A more detailed discussion of the results, the implications for HRD research and practice, and recommendations for future research will be presented in Chapter V.

CHAPTER V

SUMMARY, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

This chapter includes five major sections. In the first section, the current study is briefly reviewed and summarized. In the second section, the research hypotheses and related findings are discussed. In the third section, the implications of the current study for HRD research and practice are discussed. In the fourth section, the limitations of the study are provided. In the fifth and final section, recommendations and directions for future studies are provided.

Summary

The purpose of this study was to investigate the relationships between managerial coaching behavior and employee outcomes in organizations. In particular, the direct and indirect relationships between and among perceived managerial coaching behavior and employee self-reported affective and performance related outcomes were the focus of this study. The proposed outcome variables of managerial coaching were employee *satisfaction with work, role ambiguity, satisfaction with manager, career commitment, job performance, and organization commitment.*

An electronic survey was utilized to collect data from employees in a government organization, one of the largest providers of workforce training and development in the United States. Three rounds of email invitation with the survey link were sent to 1,399 employees in the organization using their organization email accounts. Among the population of 1,399 employees, 508 (36.31%) entered the survey. Thirty six

cases (out of 508) were identified as inadmissible and 41 cases (out of 472) were incomplete; hence, they were removed from the final sample size by list-wise deletion, to keep the sample number of cases in all analyses. A sample of 431 complete cases was used for the current study. This exceeded the sample size (302) suggested by Krejcie and Morgan (1970) to appropriately represent the selected population (1,399). The item-response ratio employed for the current study was 1:14 (31:431), and also exceeded the recommended sample size of 1:5 (Bentler & Chou, 1987) and even 1:10 (Jackson, 2003).

Consistent with the hypothesized theoretical model and structural correlations being examined, the survey for this study included seven existing instruments: *managerial coaching behavior* (Ellinger et al., 2003), *satisfaction with work* (Cammann et al., 1983), *role ambiguity* (Rizzo et al., 1970), *satisfaction with manager* (Hackman & Oldham, 1974), *career commitment* (Blau, 1989), *job performance* (Carden, 2007), and *organization commitment* (Meyer & Allen, 1997). The instruments initially employed for the survey had a total of 36 items, plus demographic information items. After the PCA, however, they were identified as obtaining six factors and 31 items; two factors, *managerial coaching behavior* and *satisfaction with managers*, loaded together and five items were dropped as a result of the PCA. Based on their characteristics, the six factors were named *managerial coaching*, *satisfaction with work*, *role clarity*, *career commitment*, *job performance*, and *organization commitment*, respectively; *satisfaction with manger* was incorporated in the new, hybrid factor of *managerial coaching*. Thus, initially hypothesized relationships related to *satisfaction with managers* were dropped as well, and not examined in the current study. Each of 31 items was presented as a

seven-point Likert-type scale with 1, being “strongly disagree” to 7, being “strongly agree.” An estimation of the readability level for the survey was Flesh-Kincaid Grade Level 7.1, which indicates a seventh grade reading level (Kincaid et al., 1975). Two phases of a pilot test were conducted with seventeen individuals to determine the face validity and clarity of the survey questions and the accessibility and functionality of the online survey instrument. Minor changes were made to improve the effectiveness of the survey administration.

Prior to running the main data analyses, data were screened to investigate accuracy, missing data, multivariate and univariate normality, outliers, linearity, and multicollinearity and singularity in the study. Results of data screening indicated that no transformation or special treatment was necessary for the collected data. The main data analyses were then conducted. The data analyses in the study included descriptive statistics, the PCA, estimates of reliability, the correlation analysis, and SEM. In particular, SEM was utilized to investigate the hypothesized theoretical model and structural relationships. The statistical software SPSS 16.0 was used for descriptive statistics, construct validity, reliability estimation, and correlation analysis, while AMOS 16.0 was used for the SEM analysis. The Sobel calculator was used to examine mediating effects.

Factor analysis was conducted to uncover the latent factor structure of the survey combined of the seven instruments and to validate an instrument by demonstrating items loaded on the same factor (Gorsuch, 1983; Thomson, 2004; Walsh & Betz, 1995). The PCA was chosen to extract factors from the 36 items. The PCA revealed that the survey

combined for the study had six significant factors, which had an eigenvalue greater than 1.00. The six factors with an eigenvalue greater than 1.00 explained 72.16% of the total variance. Direct oblimin technique was selected for the factor rotation. A pattern coefficient of .60 and above ($\geq .60$) in the pattern matrix were used in determining which items meaningfully correlate with the rotated factor (Tabachnick & Fidell, 1996). The PCA resulted in 31 items ($\geq .60$, Tabachnick & Fidell, 1996) loading on the six factors. Based on factor analytic findings, common method bias (Podsakoff et al., 2003) was determined to not be a concern for the reported sample.

Reliability estimation was conducted for the obtained six factors and 31 items. It was found that *managerial coaching* had a Cronbach's alpha coefficient of .97; *satisfaction with work* had an alpha coefficient of .87; *role clarity* had an alpha coefficient of .85; *career commitment* had an alpha coefficient of .86; *job performance* had an alpha coefficient of .92; *organization commitment* had an alpha coefficient of .87; and all 31 items had an alpha coefficient of .95. Cronbach's alpha for all factors exceeded .85 ($>.70$, Kline, 2005) and indicated that at least 85% of the total variance was systematic and reliable.

To investigate the interrelationships between and among managerial coaching and employee outcomes in organizations, bivariate correlation (r) analysis was conducted. A p -value of less than .05 ($<.05$) was used as the criterion statistic to determine if the relationship was significant. It was found that six correlations in the hypothesized model were significant. The correlation between *managerial coaching* and *satisfaction with work* was significant and positive, and the strength of the association

between the two was moderate ($< .70$, McMillan, 2000); the correlation between *managerial coaching* and *role clarity* was significant and positive, and the strength of the association between the two was moderate ($< .70$); the correlation between *role clarity* and *satisfaction with work* was significant and positive, and the strength of the association between the two was moderate ($< .70$); the correlation between *role clarity and job performance* was significant and positive, and the strength of the association between the two was weak ($< .30$, McMillan, 2000); the correlation between *satisfaction with work* and *career commitment* was significant and positive, and the strength of the association between the two was moderate ($< .70$); and the correlation between *satisfaction with work* and *organization commitment* was significant and positive, and the strength of the association between the two was moderate ($< .70$).

The SEM analysis was conducted to further examine if the theoretical model and hypothesized structural relationships at the conceptualization stage are supported by the empirical data of the study sample (Diamantopoulos & Siguaw, 2000; Kline, 2005). *Two-step modeling* (Anderson & Gerbing, 1998; Kline, 2005) was conducted: 1) to validate the CFA measurement model and then, 2) to determine the goodness-of-fit of the structural model. In the first step modeling, the CFA measurement model was identified by the study sample. The CFA model had a relative chi-square (χ^2/df , *CMIN/DF* in the AMOS outputs) greater than 3 (χ^2 : 1,406.43; *df*: 419; $p = .00$; χ^2/df : 3.36). Although the relative chi-square did not indicate the adequate goodness-of-fit ($\chi^2/df \leq 3$, Kline, 2005) of the CFA measurement model to the data, these results were not pervasive in the study since these chi-square (χ^2) relevant fit indexes are sensitive to

the large sample sizes (Hair et al., 2006). To make a holistic evaluation of the CFA measurement model fit, three other fit indexes (CFI, IFI, and RMSEA) were examined. This holistic fit examination indicated that the CFA measurement model had an acceptable fit; CFI was .91 ($> .90$); IFI was .91 ($> .90$); and RMSEA was .07 ($\leq .08$) (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2001; Hu & Bentler, 1998; Kline, 2005). Therefore, the CFA measurement model was sufficiently supported by the empirical data in the study. In addition, the CFA model was identified as unidimensional with reasonable convergent validity among the items of each factor and discriminant validity between the factors.

Once the CFA measurement model was identified, estimations of the structural model were conducted. The structural model was found to have a relative chi-square (χ^2/df ; *CMIN/DF* in the AMOS outputs) greater than 3 (χ^2 : 1,497.38; *df*: 424; $p = .00$; χ^2/df : 3.53). Although it indicated that the structural model might have the lack of the goodness-of-fit ($\chi^2/df \leq 3$, Kline, 2005), the other three fit indexes revealed that the structural measurement model had an acceptable fit; CFI was .91 ($> .90$); IFI was .91 ($> .90$); and RMSEA was .08 ($\leq .08$) (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2001; Hu & Bentler, 1998; Kline, 2005). Therefore, the holistic fit evaluation identified the structural model with an acceptable model fit. The structural model was adequately supported by the empirical data of the study sample.

To further investigate the predictability of the exogenous factor or independent variable in the hypothesized model, regression estimates were examined (Tabachnick & Fidell, 2001). A *p-value* of less than .05 ($< .05$) was used as the criterion statistic to

determine if the degree of prediction was significant. *Managerial coaching* was found to be a significant direct predictor of *satisfaction with work* ($\beta = .48, p < .01$). *Managerial coaching* was found to be a significant direct predictor of *role clarity* ($\beta = .71, p < .01$). *Managerial coaching* was not found to be a significant direct predictor of *job performance*. Next, *role clarity* was found to be a significant predictor of *satisfaction with work* ($\beta = .32, p < .01$). *Role clarity* was found to be a significant predictor of *job performance* ($\beta = .19, p < .05$). And, *satisfaction with work* was found to be a significant predictor of *career commitment* ($\beta = .54, p < .01$). *Satisfaction with work* was not found to be a significant predictor of *job performance*. *Satisfaction with work* was found to be a significant predictor of *organization commitment* ($\beta = .67, p < .01$). *Career commitment* was not found to be a significant predictor of *job performance*. Last, *organization commitment* was not found to be a significant predictor of *job performance*.

In addition, to test the seven mediation effects in the hypothesized model, the Sobel test (for two-tailed) was conducted. A *p-value* of less than .05 ($< .05$) was used as the criterion statistic to determine if the mediation effect was significant. The Sobel test scores confirmed the four mediating effects in the hypothesized model, *role clarity* on *satisfaction with work* (5.03), *role clarity* on *job performance* (2.31), *satisfaction with work* on *career commitment* (6.43), and *satisfaction with work* on *organization commitment* (6.52). Therefore, it was supported that *managerial coaching* had an indirect effect on *satisfaction with work*, *career commitment*, *job performance*, and *organization commitment*.

In conclusion, *managerial coaching* had a direct impact on *employee satisfaction with work* and *role clarity* and an indirect impact on *satisfaction with work*, *career commitment*, *job performance*, and *organization commitment*. The hypothesized model had clear and comprehensive illustrations of how *managerial coaching* affects work and organization-related variables, *satisfaction with work*, *role clarity*, *career commitment*, *job performance*, and *organization commitment*.

Discussion

In this section, the study results are discussed and compared with the literature. Since *role ambiguity* was labeled *role clarity* to better reflect its items or construct characteristics in the current study (see the results of the PCA in Chapter IV), the relationships of *role clarity*, instead of *role ambiguity*, with other key study variables are discussed in this section. Only the sign of the relationships changed from the initial hypotheses (e.g. a positive relationship of *role clarity* with a key variable is discussed, instead of a negative relationship of *role ambiguity* with the key variable).

Hypothesized Conceptual Model

Before discussing the hypothesized conceptual model of the study, I address results of the PCA in the current study. The study was initially designed to examine the hypothesized theoretical model and structural relationships between and among the seven factors (36 items). However, the PCA with the direct oblimin rotation revealed that the survey instrument combined for the study obtained only six factors, which had an eigenvalue greater than 1.00. Further, an examination of the pattern matrix indicated that 31 items meaningfully correlated with or loaded on the six factors ($\geq .60$,

Tabachnick & Fidell, 1996). Eleven items loaded on the first factor; eight *managerial coaching behavior* items loaded together with three *satisfaction with manager* items, although they were proposed to load on two different, separated factors based on earlier conceptual studies. In addition, five items (RA5, RA6, CC2, CC3, OC1) did not load ($< .60$) on any factor; hence, they were not included in further analyses.

This finding of having six factors, not seven, was unexpected, but important. Since managerial coaching is an emerging area of research, there exists a handful of knowledge in the topic area. A possible interpretation of this result is that managerial coaching behavior is very closely related with an effective managerial and leadership behavior which can directly satisfy their employees in organizations. Another possible interpretation is that they are known to be theoretically or conceptually different constructs but they shared common aspects in reality, at least their empirical measures. Hence, I examined these two item sets. A potential overlap of similar language usage between the two was identified. Three other experts in HRD reviewed the two item sets and expressed a possible difficulty in distinguishing one from the other. Therefore, it was reasoned that these two measures have a likely face validity issue.

The hypothesized theoretical model and structural relationships were tested and supported by the empirical data of the study sample ($\chi^2/df > 3$; CFI $> .90$; IFI $> .90$; RMSEA $\leq .08$). By the *two-step modeling* (Anderson & Gerbing, 1998; Kline, 2005), the CFA measurement model was validated and then, the structural relationships model were examined to determine the goodness-of-fit by the study data. The data matched the model of managerial coaching outcomes in the study illustrating how *managerial*

coaching influences the five outcome variables, *satisfaction with work, role clarity, career commitment, job performance, and organization commitment*. Most of all, since there is no widely accepted theory or model for managerial coaching outcomes, this finding of the current hypothesized model is foundational in coaching research.

Hypothesis 1 Managerial Coaching and Employee Job Performance

As stated in *hypothesis 1, there would be a significant positive relationship between managerial coaching and employee job performance*. Hypothesis 1 was not supported by the empirical data of the study sample. *Managerial coaching* did not have a significant and positive relationship with *employee job performance* ($p \geq .05$); the strength of the association between the two was trivial in magnitude ($r < .10$, McMillan, 2000). Also, *managerial coaching* was not a significant predictor of *job performance* ($p \geq .05$). These study results indicated that *managerial coaching* did not directly impact *job performance*. Only 1% of the variance in *job performance* was explained by the variance in *managerial coaching*. Alternatively, as discussed below, role clarity, as a direct outcome of managerial coaching, influences job performance—such mediation is consistent with the hypothesized model for the study.

This is a surprising finding. Most coaching literature identified job performance improvement as a primary potential outcome of managerial coaching (Ellinger et al., 2003; Evered & Selman, 1989; Hargrove, 1995; Zemke, 1996). However, the results of correlation and regression analyses in the current study indicated that job performance as measured in the study was not a direct outcome of managerial coaching, although it was found that job performance was an indirect outcome of managerial coaching, mediated

by role ambiguity in the study (see the mediating effects report part). This might be because job performance was self-reported rather than others-reported in the current study. Some studies stated that self-rated job performance tends to be not accurate enough or to be more highly scored than manager or peer-rated job performance does (Dunning, Heath, & Suls, 2004; Mabe & West, 1982; Gilboa, Shirom, Fried, & Cooper, 2008). Employee self-rating might distort or boost their job performance scores regardless of frequency or quality of managerial coaching they received in organizations. Thus, this study finds that managerial coaching is not directly and significantly related to employee job performance.

Hypothesis 2a Managerial Coaching and Employee Satisfaction with Work

As stated in *hypothesis 2a*, there would be a significant positive relationship between managerial coaching and employee satisfaction with work. Hypothesis 2a was supported by the empirical data of the study sample. *Managerial coaching* had a significant and positive relationship with *employee satisfaction with work* ($p < .05$); the strength of the association between two was moderate ($r < .70$, McMillan, 2000). *Managerial coaching* was also found to be a significant predictor of *satisfaction with work* ($p < .05$). These study results indicated that *managerial coaching* directly impacted *satisfaction with work*, with 23.04% of the variance in *satisfaction with work* explained by the variance in *managerial coaching*.

This finding is aligned with anticipations or results from earlier studies. Employee satisfaction with work has been recognized as one of the primary potential outcomes of managerial coaching in that effective, participative management and

leadership behaviors promote employee satisfaction with work (Ellinger et al., 2003; Elloy, 2006; Lok & Crawford, 2004). Kram (1985) classified coaching behavior as a sub-dimension of mentoring (Kram, 1985). It was reported that informal and formal mentoring, including coaching, increased employee job satisfaction in organizations (Kram, 1985; Egan & Song, 2008; Lankau et al., 2006). Thus, the current study supports that managerial coaching is directly and significantly related to job performance.

Hypothesis 2b Managerial Coaching and Employee Role Clarity

As stated in *hypothesis 2b*, there would be a significant negative relationship between managerial coaching and employee role clarity. Hypothesis 2b was supported by the study sample. *Managerial coaching* had a significant and positive relationship with *employee role clarity* (a significant and negative relationship with *employee role ambiguity*) ($p < .05$); the strength of the association between the two was moderate ($r < .70$, McMillan, 2000). *Managerial coaching* was also found to be a significant predictor of *role clarity* ($p < .05$). The study results indicated that *managerial coaching* directly impacted *role clarity*, with 50.41% of the variance in *role clarity* explained by the variance in *managerial coaching*.

This finding is consistent with anticipations or results from the earlier studies. Feedback from managers can help employees develop self-awareness at work (Peterson & Hicks, 1996) and in turn, clearly understand their goals and responsibilities on the job (Ellinger & Bostrom, 1999). The effective feedback can also lead employees to successfully achieving the established goals in organizations (House, 1996; Jackson &

Schuler, 1985; Sawyer, 1992). Thus, these study results demonstrate that managerial coaching impacts employee role clarity.

Hypothesis 3a Employee Role Clarity and Satisfaction with Work

As stated in *hypothesis 3a*, there would be a significant negative relationship between employee role clarity and satisfaction with work. Hypothesis 3a was supported by the study sample. *Employee role clarity* had a significant and positive relationship with their *satisfaction with work* ($p < .05$); the strength of the association between the two was moderate ($r < .70$, McMillan, 2000). *Role clarity* was also found to be a significant predictor of *satisfaction with work* ($p < .05$). These study results indicated that *role clarity* impacted *satisfaction with work*, with 10.24% of the variance in *satisfaction with work* explained by the variance in *role clarity*.

This finding is aligned with results from the earlier studies. Role theorists argued that role clarity positively affects employees in organizations, because lack of role clarity can increase job stress in complex work-settings (Fried et al., 1998; Kahn et al., 1964; Rizzo et al., 1970). Satisfaction with work was often identified as one of the main outcomes of role clarity (Fisher & Gitelson, 1983; Jackson & Schuler, 1985; Netemeyer et al., 1995). It was also shown that a high level of role ambiguity can cause employee dissatisfaction with work (Brown & Peterson, 1993). Thus, the findings of the current study support that role clarity is a predictor of satisfaction with work.

Hypothesis 3b Employee Role Clarity and Job Performance

As stated in *hypothesis 3b*, there would be a significant negative relationship between employee role clarity and job performance. Hypothesis 3b was supported by the

study sample. *Employee role clarity* had a significant and positive relationship with their *job performance* ($p < .05$); the strength of the association between the two was weak ($r < .30$, McMillan, 2000). *Role clarity* was also found to be a significant predictor of *job performance* ($p < .05$). These study results indicated that *role clarity* impacted *job performance*, with 3.61% of the variance in *job performance* explained by the variance in *role clarity*.

This finding is consistent with results from earlier studies. Researchers proclaimed that increased stress, which was caused by lack of role clarity, can impoverish employee job performance as well as positive attitude to their organization (Erera-Weatherley, 1996; Rizzo et al., 1970). Employees with high role clarity are likely to be less careless and more discriminability in their work and organization-related activities (Dierdorff & Rubin, 2007). Many researchers reported that role ambiguity correlated significantly and negatively with job performance (Tubre & Collins, 2000; Fried et al., 1998). Thus, the findings of the current study support that role clarity increases job performance in complex organizations.

Hypothesis 4a Employee Satisfaction with Work and Career Commitment

As stated in *hypothesis 4a*, there would be a significant positive relationship between *employee satisfaction with work and career commitment*. Hypothesis 4a was supported by the study sample. *Employee satisfaction with work* had a significant and positive relationship with their *career commitment* ($p < .05$); the strength of the association between the two was moderate ($r < .70$, McMillan, 2000). *Satisfaction with work* was also found to be a significant predictor of *career commitment* ($p < .05$). These

study results indicated that *satisfaction with work* impacted *career commitment*, with 29.16% of the variance in *career commitment* explained by the variance in *satisfaction with work*.

London (1983) argued that job satisfaction is a predictor of career commitment since satisfied employees tend to like their job and in turn, be committed to their career. In some studies, it was reported that satisfaction with work had a significant and positive relationship with career commitment, although there was little research conducted on career commitment. (Blau, 1999; Carless & Bernath, 2007; Goulet & Singh, 2002; Zhou et al., 2009). Thus, these study findings add evidence that satisfaction with work is a determinant of career commitment.

Hypothesis 4b Employee Satisfaction with Work and Job Performance

As stated in *hypothesis 4b*, there would be a significant positive relationship between *employee satisfaction with work* and *job performance*. Hypothesis 4b was not supported by the study sample. *Employee satisfaction with work* did not have a significant and positive relationship with their *job performance* ($p \geq .05$); the strength of the association between the two was trivial ($r < .10$, McMillan, 2000). Also, *satisfaction with work* turned out to be not a significant predictor of *job performance* ($p \geq .05$). These study results indicated that *satisfaction with work* did not impact *job performance*. Only 0.81% of the variance in *job performance* was explained by the variance in *satisfaction with work*.

This is an interesting finding. Traditionally, it had been shown that satisfaction with work has a significant positive relationship with job performance. Vroom (1964)

and Porter and Lawler (1968) made a link between employee satisfaction and performance in organizations and many researchers supported this connotation in their empirical studies. In several meta-analyses, it was reported that there was a significant positive relationship between satisfaction with work and job performance (Judge et al., 2001; Nathanson & Becker, 1973; George & Jones, 1997; Riketta, 2008), although the relationship was weak. Also, popular in contemporary psychology is positive psychology, which proposes a positive emotion state produces a positive achievement (Seligman, 2006). However, this study might indicate that happy life does not always bring in productive life in organizations. Pressure for producing goods or services might concurrently decrease satisfaction with work and increase productivity, thus moderating the relationship between the two (Triandis, 1959). Another key reason for these conflicting findings may be the work and organization context employed for the current study (Perry, 2000; Perry & Rainey, 1988). Stagnant bureaucracies tend not to provide employees with sufficient flexibility and performance-related support to improve performance (Posner & Schmidt, 1996). At the same time, government employees are often more security oriented so that they may be very satisfied with their level of job security (DeSantis & Durst 1996; Khojasteh 1993). Thus, the work and organization context might alter the relationship between satisfaction with work and job performance. The findings of the current study present the contradictory result to the majority of the earlier literature in that satisfaction with work is not a significant predictor to job performance in this study.

Hypothesis 4c Employee Satisfaction with Work and Organization Commitment

As stated in *hypothesis 4c*, there would be a significant positive relationship between *employee satisfaction with work and organization commitment*. Hypothesis 4a was supported by the study sample. *Employee satisfaction with work* had a significant and positive relationship with their *organization commitment* ($p < .05$); the strength of the association between the two was moderate ($r < .70$, McMillan, 2000). *Satisfaction with work* was also found to be a significant predictor of *organization commitment* ($p < .05$). The study results indicated that *satisfaction with work* impacted *organization commitment*, with 44.89% of the variance in *organization commitment* explained by the variance in *satisfaction with work*.

This finding was expected. The three-component model of organization commitment (Meyer & Allen, 1991) proposed satisfaction with work as an antecedent of organization commitment. Management and organizational researchers addressed that satisfaction with work correlated significantly and positively with organization commitment (Allen & Meyer, 1996; Blau & Boal, 1987; Kacmar et al., 1999; Randall, 1990; Vandenberg & Lance, 1992). Recently, organization commitment has become more important than satisfaction with work or job satisfaction in understanding employee work and organization-related attitudes, since organization commitment was identified as more stable and consistent to work environment fluctuations than job satisfaction (Mowday et al., 1982). The findings of the current study demonstrate that satisfaction with work affects organization commitment.

Hypothesis 6 Employee Career Commitment and Job Performance

As stated in *hypothesis 6*, there would be a significant positive relationship between *employee career commitment and job performance*. Hypothesis 6 was not supported by the study sample. *Employee career commitment* did not have a significant and positive relationship with their *job performance* ($p \geq .05$); the strength of the association between the two was trivial ($r < .10$, McMillan, 2000). Also, *career commitment* turned out to be not a significant predictor of *job performance* ($p \geq .05$). These study results indicated that *career commitment* did not impact *job performance*. Only 0.64% of the variance in *job performance* was explained by the variance in *career commitment*.

This finding was not anticipated. Although existing studies are limited in this area, it was reported that there was a significant positive relationship between career commitment and job performance. Somers and Birnbaum (1998), Gardner (1992), and Katzenbach (2000) found that career commitment was positively related to performance effectiveness. However, the current study findings reveal that career commitment does not have a significant positive relationship with job performance, and adds a non-traditional notion to the area of career commitment. In similar, although still limited, Aryee and Tan (1992) reported that career commitment was not a predictor of work quality improvement. It may be that job performance is not always the significant result of career commitment so much as the result of the one's skills and knowledge. Also, as in the findings of hypothesis 4b examining the relationship between satisfaction with

work and job performance, the type of organization (Perry, 2000; Perry & Rainey, 1988) may be a factor here, too. Government employees may be committed to their career because of stability and performance may be less of a factor because of lack of upward mobility and constraints that government organizations place on individual employees (DeSantis & Durst 1996; Khojasteh 1993; McDonald, Brown, & Bradley, 2004; Vardi, 1980). Moreover, in some government organizations promotion is still based on seniority and length of service (Selby Smith, 1993). Thus, the type of organization might moderate the relationship between career commitment and job performance in the current study. Since there are too few empirical studies to examine the relationship between career commitment and job performance (Somers & Birnbaum, 1998), more investigations are necessary in this area.

Hypothesis 7 Employee Organization Commitment and Job Performance

As stated in *hypothesis 7*, there would be a significant positive relationship between employee organization commitment and job performance. Hypothesis 7 was not supported by the study sample. *Employee organization commitment* did not have a significant and positive relationship with their *job performance* ($p \geq .05$); the strength of the association between the two was trivial ($r < .10$, McMillan, 2000). Also, *organization commitment* turned out to be not a significant predictor of *job performance* ($p \geq .05$). These study results indicated that *organization commitment* did not impact *job performance*. Only 0.01% of the variance in *job performance* was explained by the variance in *organization commitment*.

This finding is interesting. It is often believed that more committed employees produce more products or better service (Meyer & Allen, 1997). The three-component model of organization commitment proposed job performance as a consequence of organization commitment (Meyer & Allen, 1991). During the past few decades, organization commitment has become an essential topic in the study of employee attitude and behavior in organizations, since organization commitment was often considered as a predictor of turnover intention or actual turnover as well (Cohen, 1991). However, the current study finds that organization commitment is not a significant predictor of job performance. In some studies, this contradictory result occurred (Meyer et al., 2002; Ganster & Dwyer, 1995; Somers & Birnbaum, 1998). Why organization commitment is related to job performance in some studies and not in others is not clearly known yet. Perhaps, there are boundary conditions to consider as earlier researchers suggested: the work and organization-related variables may be associated with status hierarchies, such as occupational level and competency and organization position rank and tenure, or possible moderator variables (Meyer & Allen, 1997; Selby Smith, 1993; Somer & Birnbaum, 1998; Vardi, Wiener, & Popper, 1989; Wright & Bonett, 2002). Wright and Bonett (2002) reported that the correlation between organization commitment and job performance was strongest among new employees and declined exponentially over time. Also, same as the above, the public organization context may yield different results in employee affective and performance-related outcomes. In their study, Balfour and Wechsler (1991) reported that although government employee organization commitment had a significant positive relationship with their desire to stay

in the organization, their commitment to the organization was found to not have a significant relationship to their willingness to put forth extra effort for the organization. Therefore, increased organization commitment may not necessarily result in improved job performance in government organizations. Further investigations are needed for the public-private organization distinction in future studies.

Mediating Effects

The four mediating effects in the hypothesized structural relationships were confirmed by the Sobel test. The Sobel test statistic for the mediating effect of *satisfaction with work* on *career commitment* was significant ($p < .05$), and indicated that *satisfaction with work* mediated the relationship between *managerial coaching* and *career commitment*. The Sobel test statistic for the mediating effect of *satisfaction with work* on *organization commitment* was significant ($p < .05$), and indicated that *satisfaction with work* mediated the relationship between *managerial coaching* and *organization commitment*. The Sobel test statistic for the mediating effect of *role clarity* on *satisfaction with work* was significant ($p < .05$), and indicated that *role clarity* mediated the relationship between *managerial coaching* and *satisfaction with work*. The Sobel test statistic for the mediating effect of *role clarity* on *job performance* was significant ($p < .05$), and indicated that *role clarity* mediated the relationship between *managerial coaching* and *job performance*. The other three proposed mediating effects, *satisfaction with work* on *job performance*, *career commitment* on *job performance*, and *organization commitment* on *job performance*, were not supported ($p \geq .05$) by the Sobel test in the study.

In conclusion, *managerial coaching* had an indirect impact on *satisfaction with work, career commitment, job performance, and organization commitment* as well as a direct impact on *employee satisfaction with work and role clarity*. These findings were consistent with the results of the correlation and regression analyses. Overall, the hypothesized theoretical model and structural relationships were tested and supported by the empirical data of the study sample ($\chi^2/df > 3$; CFI $> .90$; IFI $> .90$; RMSEA $\leq .08$).

Implications for HRD Research, Theory, and Practice

The study findings have several implications for HRD researchers, theoreticians, and practitioners. The following implications emerged from the current study, as adding new knowledge to HRD research, applying and reinforcing existing HRD theories, and helping HRD practitioners maximize their management and leadership effectiveness in organizations.

First, this study offers empirical support to the potential but unexamined advantages of managerial coaching. Although there were practitioner reports and opinion papers which implied potential outcomes of managerial coaching, few empirical studies were reported to examine these arguments more closely. The hypothesized model of managerial coaching outcomes in this study was sufficiently supported by the empirical data of the study sample. Therefore, this study provides comprehensive empirical support to the proposed benefits of managerial coaching in organizations.

Second, the current study provides further support to the selected, existing theories. Three theories, path-goal leadership, career motivation, and organization support, were used to examine and frame the potential outcomes of managerial coaching

in this study: 1) path-goal leadership theory was used to frame the variables of *managerial coaching* as an effective management and leadership behavior, *employee satisfaction with work*, *role clarity*, *satisfaction with manager*, and *job performance*; 2) career motivation theory was used to frame the variables of *managerial coaching* as a means of supervisor and organization support, *employee satisfaction with work*, and *career commitment*; and 3) organization support theory was used to frame the variables of *managerial coaching* as a form of PSS and POS, *employee satisfaction with manager*, and *organization commitment*. The findings of the current study indicated that managerial coaching influences these identified variables of employee affective and performance-related outcomes, as the selected theories guided. Managerial coaching, as an effective management and leadership behavior, a means of supervisor and organization support, and a form of PSS and POS in each of these theories, motivates and satisfies employees and improves their commitment and performance toward designated goal achievement. Therefore, these theories provided insight to the current study and in turn, the current study enhances the selected theories by offering additional empirical support to them.

Third, the current study presents a clearer picture of managerial coaching practice in organizations. The hypothesized model of managerial coaching outcomes in the study illustrated how *managerial coaching* affects employee work and organization-related outcome variables, including *satisfaction with work*, *role clarity*, *career commitment*, *job performance*, and *organization commitment*. Findings of the current study may not only assist managers and leaders to understand how their behaviors affect

employee attitude and behavior, but also identify and focus on specific coaching behaviors to maximize their management and leadership effectiveness in organizations.

Fourth, the findings of the current study provide rationales for emphasis of managerial coaching in organizations as an effective management and leadership behavior. Some organizations may doubt the efficacy of managerial coaching (Park, 2007). However, the empirical impact of managerial coaching from this study can further facilitate organizations to utilize managerial coaching as an organization strategy for improving employee satisfaction, role clarity, commitment, performance, and potentially turnover conditions in their organization.

Fifth, these study findings indicate that organizations may hire managers and leaders who can coach employees or subordinates effectively. Manager as coach is recognized as a new managerial role in learning organizations (Beverly, 1992; Ellinger et al. 2003; Evered & Selman, 1989; Hannah, 2004; Hargrove, 1995; Orth et al., 1999; Peterson & Hicks, 1996). Changing environments of mergers and acquisitions, technology innovation, and globalization require managers and leaders to demonstrate this new coaching competency (Wenzel, 2000). Coaching is known as a set of trainable skills (Graham et al., 1993). Therefore, organizations can develop managers and leaders to be more effective coaches, as well as hire them.

Limitations of the Study

While there are important findings and implications in the current study, there also exist limitations. First, the self-selected participant is a limitation of the current study. As study participation was voluntary, there bias associated with this sample

selection method (Walsh, Kiesler, Sproull, & Hesse, 1992) may be present. If motivation to respond to this survey was involved with an issue which the participants cared about, they might give information that supports their beliefs (Mathy, Kerr, & Haydin, 2003). Thus, the participant selection bias may be a threat to internal validity of the sample data.

Next, self-reported data is another limitation of the current study. Self-reported data depends on perceptions and reflections of respondents, not objective truths. As with any self-report measure, there existed a possibility of difference between the respondent perception and actual performance in this study. Also, the respondents might not be able to recall information accurately. However, this data collection method is usually accepted since a self-reported survey is considered one of the most practical ways to represent individual attitudes and behaviors as well as to collect data (Nair, 2007).

The potential for nonresponse bias is a limitation in the current study. Prospective participant nonresponse may, although not necessarily, induce nonresponse bias in the survey research (Kish, 1965). Nonresponse bias may occur in this statistical survey if employees who responded to the survey differ (for example, satisfaction with work, organization commitment, or job performance in the current study) from employees who did not respond. Since nonreponse bias may lead to a misrepresentation of the population parameter, it may weaken conclusions based on study findings, or mask the true relationships between two or more variables among the population (Armstrong & Overton, 1977).

Last, a single type of organization leaves uncertainties about generalizability of the findings in the current study (Swanson & Holton, 2005). As evidenced by increasing

comparative studies in management and public administration literature, there exist distinctions between the private and public organizations and their employee responses (Perry & Rainey, 1988). Since the participants for the current study were government organization employees, they may have different attitudes or expectations from for-profit and non-profit organization employees—regarding their cognition, satisfaction, commitment, and performance (Perry, 2000).

Recommendations and Directions for Future Research

Future research is needed to confirm and extend the current studies on managerial coaching. As stated earlier, there was a paucity of studies existing in managerial coaching. In particular, fewer studies were reported for the outcomes of managerial coaching (Ellinger & Bostrom, 1999; Park, 2007; Wenzel, 2000). To further explore and examine the area of managerial coaching, more research is needed from both quantitative and qualitative approaches.

This study was the first attempt to test the hypothesized model of managerial coaching outcomes in the comprehensive manner. Although the hypothesized model was adequately supported by the current study data, further study and use of additional research contexts may further extend the efficacy of this managerial coaching model. To check the invariance of the hypothesized model among various sample groups, this model needs to be tested with multiple samples. In particular, another organization type, such as profit or non-for-profit organization, can be employed to test if the model operates the same across organization types in future research (Swanson & Holton, 2005).

Construct validity of managerial coaching also needs to be further established. Since managerial coaching is an emerging research area, concepts, processes, and competencies of managerial coaching are still evolving (Hamlin et al., 2008). In this study for example, managerial coaching loaded together with satisfaction with manager on the same factor, unexpectedly. More studies are needed to establish the convergent and discriminant validity of a managerial coaching construct. In addition, the outcome variable, *satisfaction with manager*, needs to be further examined. In the current study, relationships of *satisfaction with manager* with other potential key outcome variables could not be examined, although there were likely relationships among them. Therefore, it is recommended to conduct future research to explore those hypothesized relationships. In addition, another measure of *satisfaction with manager* can be applied for this future research.

Future researchers can employ other correlates or outcomes. LMX is a potential correlate of managerial coaching (Joo, 2007) and turnover intention and actual turnover is another likely outcome (Lankau & Scandura, 2002; Park, 2007). Organization citizenship behavior appears to be a potential outcome of managerial coaching, since organization citizenship behavior is closely related with management and leadership, work environment support, job satisfaction, and organization commitment (Fields, 2005; Meyer & Allen, 1997; Spector, 1997).

Antecedents of managerial coaching should be explored. The current study focused on the outcomes of managerial coaching. Since managerial coaching achieved evidence from this study to be an effective management and leadership behavior for

organizations, organizations will be curious about potential antecedents which can facilitate employees to seek managerial coaching. Also, they will be curious about potential factors which can motivate managers and leaders to learn and practice managerial coaching competencies (Park, 2007).

It is recommended that researchers conduct future studies in international and cross-cultural contexts. Managerial coaching appears to be more popular in the U.S. and European organizations. Since managerial coaching is based on collaborative and self-directed values (Evered & Selman, 1989), practicing managerial coaching may bring about a new dynamic in different culture or value oriented contexts.

Lastly, it is highly suggested that researchers examine relationships between coaching and HRD. Hamlin et al. (2008) initiated comprehensive reviews of both coaching and HRD to make a link between the two. In the current study, positionality of managerial coaching in HRD was briefly addressed as well. Since coaching is an emerging and fast growing industry (International Coaching Federation, 2010) and appears to become a critical contemporary method of HRD (Hamlin et al., 2008; McLean et al., 2005; Peterson & Hicks, 1996; Rigg et al., 2007), future researchers need to further establish and illuminate coaching, both managerial coaching and executive coaching, in the context of HRD.

Summary

In Chapter V, the current study was reviewed and summarized. The research hypotheses and related findings were discussed and compared with the literature. In the latter part, the implications of the current study for HRD research and practice were

discussed. And, the limitations of the study were provided. In the final part, recommendations and directions of future studies were provided.

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APPENDIX A
IRB APPROVAL LETTER

TEXAS A&M UNIVERSITY
DIVISION OF RESEARCH AND GRADUATE STUDIES - OFFICE OF
RESEARCH COMPLIANCE

1186 TAMU, General Services Complex
College Station, TX 77843-1186
750 Agronomy Road, #3500

979.458.1467
FAX 979.862.3176
<http://researchcompliance.tamu.edu>

Human Subjects Protection Program

Institutional Review Board

DATE: 14-Aug-2009

MEMORANDUM

TO: KIM, SEWON

FROM: Office of Research Compliance
Institutional Review Board

SUBJECT: Initial Review

Protocol
Number: 2009-0547

Title: The Relationships Between and Among Perceived Managerial Coaching Behavior and Employee Affective and Performance Related Outcomes

Review Category: Exempt from IRB Review

It has been determined that the referenced protocol application meets the criteria for exemption and no further review is required. However, any amendment or modification to the protocol must be reported to the IRB and reviewed before being implemented to ensure the protocol still meets the criteria for exemption.

This determination was based on the following Code of Federal Regulations:

(<http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm>)

45 CFR 46.101(b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Provisions:

This electronic document provides notification of the review results by the Institutional Review Board.

APPENDIX B
INVITATION E-MAIL TO PARTICIPANTS

Subject: [REDACTED] SURVEY

Dear [REDACTED]

Please see the invitation letter below regarding research at Texas A&M University. I sincerely hope you will take a moment to participate in this important research [REDACTED]
[REDACTED]

Thanks in advance for your participation!

Best regards,

[REDACTED]
[REDACTED]

[CLICK HERE TO TAKE THE SURVEY](#)

Invitation Letter

[REDACTED] appreciates you taking a few minutes of your time to complete this survey. You were selected for this anonymous, online survey along with [REDACTED] employees and others in business and non-for-profit organizations. Additional information regarding this study is available at <http://people.cehd.tamu.edu/~skim/Information.pdf>

In particular, this study is intended to examine how manager's behaviors influence job satisfaction and performance. The average time taken to do the survey is about 10 minutes.

Please follow the link below to access the survey:

[CLICK HERE TO TAKE THE SURVEY](#)

As noted above, your responses to the survey will be completely anonymous. There will be no way to track participant responses back to particular employees. If you have any questions about this study, please feel free to contact me at sewonkim1206@gmail.com, 979-739-1439 or Dr. Toby M. Egan at egan@tamu.edu, 979-458-3585.

Thank you for your participation.

Yours sincerely,
Sewon

Sewon Kim
Doctoral Candidate
Human Resource Development
Texas A&M University
Email: sewonkim1206@gmail.com
Phone: 979-739-1439

Information for Your Study Participation

The purpose of this letter is to provide information regarding your participation in the study. Please read the information below carefully. If you agree to participate in this study, please go to the link in the email.

Background Information

The purpose of this study is to examine “Perceived Managerial Coaching and Employee Affective and Performance Related Responses.” It will investigate how coaching behavior of managers influences employee role clarity, job satisfaction, work related commitment, and performance. More than 1500 employees in business and non-for-profit organizations have been asked to participate in the study.

What will I be asked to do?

You will be asked to respond to an anonymous, online survey, if you agree to participate in the study. This online survey will take less than 10 minutes to complete.

What are the risks involved in this study?

The risks associated with this study are minimal, and are not greater than risks ordinarily encountered in daily life.

What are the possible benefits of this study?

The possible benefits of participation are learning about coaching behaviors as an effective management and leadership practice and the impacts of managerial coaching on employee role clarity, job satisfaction, work related commitment, and performance. Your organization may receive a summary of the study results that report only anonymous, large group data and analysis. Thus, your participation is important and can contribute to potential improvement of organizational environments which you and your colleagues are working in.

Is this study voluntary nature?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Texas A&M University or your employer. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Is this study anonymous and confidential?

Yes, this study is anonymous and confidential. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research data will be stored securely and only the researcher (Sewon Kim) and his advisor (Dr. Toby M. Egan) will have access to the data. After survey responses are collected, organization names will be coded. All data of this study will be maintained anonymously. Your employer will not be informed about your individual responses.

Whom do I contact with questions about the research?

If you have questions regarding this study, you may contact me at:

Address: 572 Harrington Tower, 4226 TAMU, College Station, TX 77843, USA.

Phone Number: 979-739-1439

Email Address: sewonkim1206@gmail.com

Or you may contact my advisor, Dr. Toby M. Egan at egan@tamu.edu (979-458-3585) or at the following address: 553 Harrington Tower, 4226 TAMU, College Station, TX 77843, USA.

Whom do I contact about my rights as a research participant?

This research study has been reviewed by the Human Subjects' Protection Program and/or the Institutional Review Board at Texas A&M University. For research-related problems or questions regarding your rights as a research participant, you can contact these offices at irb@tamu.edu (979-458-4067).

Participation

Please go to the survey link found in the email invitation for this study, if you agree to participate in this study. Thank you very much in advance for your participation!

APPENDIX C
REMINDER E-MAILS

Survey Second Reminder Request

Subject: [REDACTED] SURVEY-- REMINDER REQUEST

Dear [REDACTED]

Please see the second reminder request below regarding research at Texas A&M University. I sincerely hope you will take a moment to participate in this important research [REDACTED]

Thanks in advance for your participation!

Best regards,

[REDACTED]

[CLICK HERE TO TAKE THE SURVEY](#)

[REDACTED] Survey Reminder Request

Two weeks ago, you were invited to participate in a research on “Managerial Coaching and Employee Job Satisfaction and Performance” conducted by Sewon Kim, a Ph. D. candidate at Texas A&M University.

This is a second reminder request that you participate in this online survey. The survey will take only about 10 minutes to complete and is anonymous and voluntary. I greatly appreciate your support.

[CLICK HERE TO TAKE THE SURVEY](#)

Feel free to contact me if you have any question or comment at sewonkim1206@gmail.com or call me at 979-739-1439. Thank you for your help of this important study.

Sincerely,
Sewon

Sewon Kim
Doctoral Candidate
Human Resource Development

Texas A&M University
Email: sewonkim1206@gmail.com
Phone: 979-739-1439

Survey Final Reminder Request

Subject: [REDACTED] SURVERY – FINAL REMINDER REQUEST

Dear [REDACTED]

Please see the final reminder request below regarding research at Texas A&M University. I sincerely hope you will take a moment to participate in this important research [REDACTED]

Thanks in advance for your participation!

Best regards,

[REDACTED]

[CLICK HERE TO TAKE THE SURVEY](#)

[REDACTED] Survey Reminder Request

Four weeks ago, you were invited to participate in a research on “Managerial Coaching and Employee Job Satisfaction and Performance” conducted by Sewon Kim, a Ph. D. candidate at Texas A&M University.

This is the final reminder request that you participate in this online survey. The survey will take only about 10 minutes to complete and is anonymous and voluntary. I greatly appreciate your support.

[CLICK HERE TO TAKE THE SURVEY](#)

Feel free to contact me if you have any question or comment at sewonkim1206@gmail.com or call me at 979-739-1439. Thank you for your help of this important study.

Sincerely,
Sewon

Sewon Kim
Doctoral Candidate

Human Resource Development
Texas A&M University
Email: sewonkim1206@gmail.com
Phone: 979-739-1439

APPENDIX D

POSTCARD

Postcard

Dear [REDACTED],

Howdy!

Four weeks ago, you were invited to participate in the coaching research. Your participation in this survey is very valuable. If you have responded to the survey, please accept our thanks.

If you have not yet finished it, remember, it's not too late! You will shortly receive the last reminder email with the link from me.

Thanks in advance for your participation!

Yours sincerely,

SEWON



APPENDIX E
SURVEY QUESTIONNAIRE

INSTRUCTIONS

1. The estimated time for this survey is **10 minutes**.
2. Your participation in this study is **confidential** and your responses are **anonymous**.
3. Please indicate the extent to which you agree or disagree with the statement by marking one number on the scale (1-7) with 1 being "strongly disagree" and 7 being "strongly agree."
4. Please be as candid as possible with your answers, since the information you provide will help us continue to improve future organizational and managerial efforts.

Demographic Information

What is your gender?

- Male
 Female

What is your age?

What is your ethnic background?

What is the highest level of education you completed?

How long have you been employed with your current organization?

What is your job area?

How long have you worked in your job area?

What job position do you hold?

What is your employment status?

(Optional) What division do you work in?

(Optional) What is your manager's age? (If you are not sure, please estimate)

(Optional) What is your manager's gender?

- Male
 Female

Survey Completion

0% Current Progress 0% 100%

All in all, I am satisfied with my job

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

In general, I don't like my job

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

In general, I like working at my current job

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

The degree of respect and fair treatment I receive from my boss

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

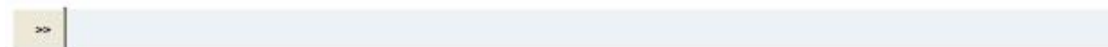
The amount of support and guidance I receive from my supervisor

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

The overall quality of the supervision I receive in my work

Very Dissatisfied Dissatisfied Somewhat Dissatisfied Neutral Somewhat Satisfied Satisfied Very Satisfied

Survey Completion
0% Current Progress 14% 100%



My manager uses analogies, scenarios, and examples to help me learn

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

My manager encourages me to broaden my perspectives by helping me to see the big picture

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

My manager provides me with constructive feedback

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

My manager solicits feedback from me to ensure that his/her interactions are helpful to me

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

My manger provides me with resources so I can perform my job more effectively

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

To help me think through issues, my manager asks questions, rather than provide solutions

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

My manager sets expectations with me and communicates the importance of those expectations to the broader goals of the organization

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

To help me see different perspectives, my manager role-plays with me

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

Survey Completion

0% Current Progress 29% 100%

>>

I would be very happy to spend the rest of my career with this organization

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I really feel as if this organization's problems are my own

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I do not feel like "part of the family" at my organization

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I do not feel "emotionally attached" to this organization

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

This organization has a great deal of personal meaning for me

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I do not feel a strong sense of belonging to my organization

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

Survey Completion
0% Current Progress 43% 100%



I like this career too well to give it up

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

If I could go into a different profession which paid the same, I would probably take it

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

If I could do it all over again, I would not choose to work in this profession

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I definitely want a career for myself in this profession

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

This is the ideal profession for a life's work

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

Survey Completion

0% Current Progress 57% 100%



You almost finished the survey.

My overall performance compared to my peers

Upper 5% Upper 10% Upper 25% Middle 50% Lower 25% Lower 10% Lower 5%

My ability to get along with others compared to my peers

Upper 5% Upper 10% Upper 25% Middle 50% Lower 25% Lower 10% Lower 5%

My ability to complete tasks on time compared to my peers

Upper 5% Upper 10% Upper 25% Middle 50% Lower 25% Lower 10% Lower 5%

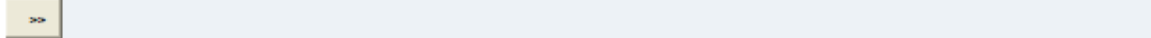
My quality of performance (as opposed to quantity of performance) compared to my peers

Upper 5% Upper 10% Upper 25% Middle 50% Lower 25% Lower 10% Lower 5%

My actual achievement of work goals compared to my peers

Upper 5% Upper 10% Upper 25% Middle 50% Lower 25% Lower 10% Lower 5%

Survey Completion
0% Current Progress 71% 100%



This is the last page of the survey.

I know exactly what is expected of me

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I know that I have divided my time properly

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

Explanation is clear of what has to be done

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I know what my responsibilities are

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

Clear, planned goals and objectives exist for my job

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

I feel certain about how much authority I have

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

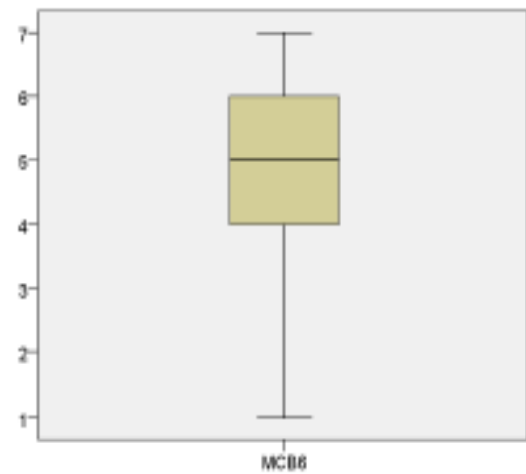
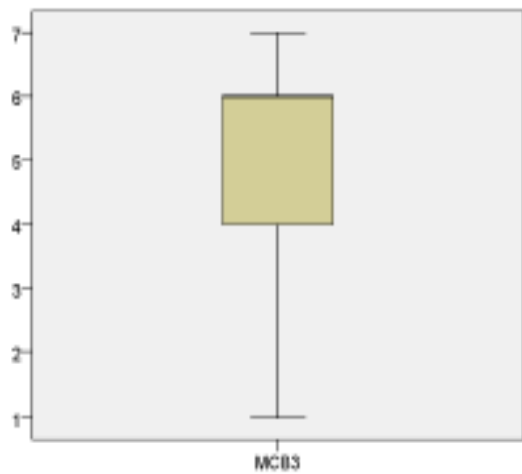
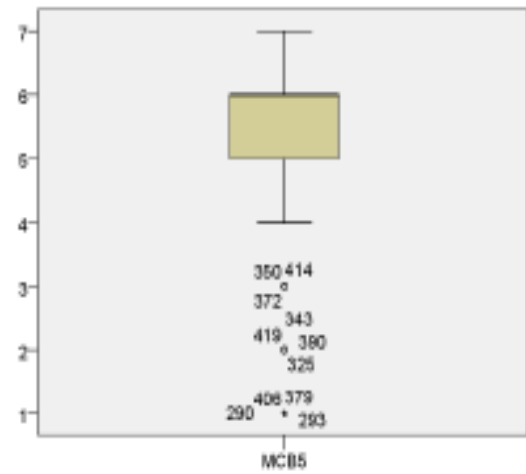
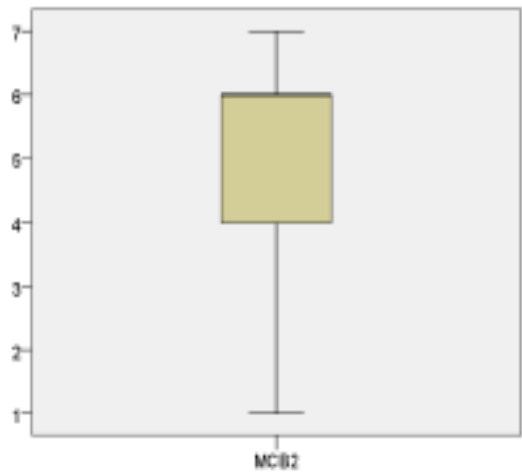
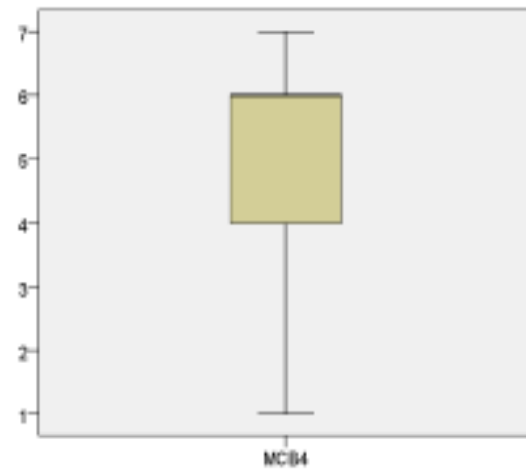
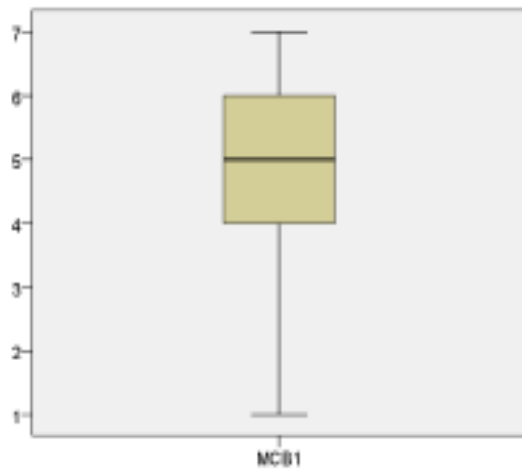
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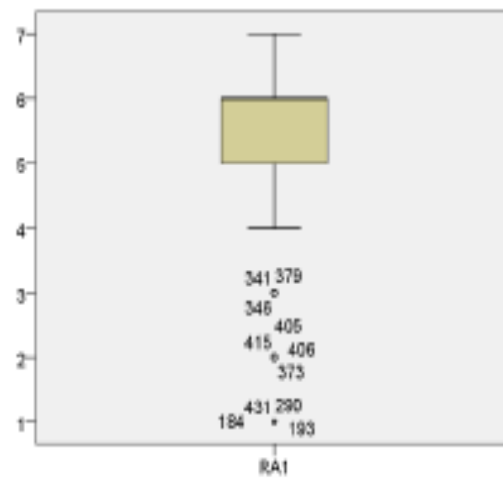
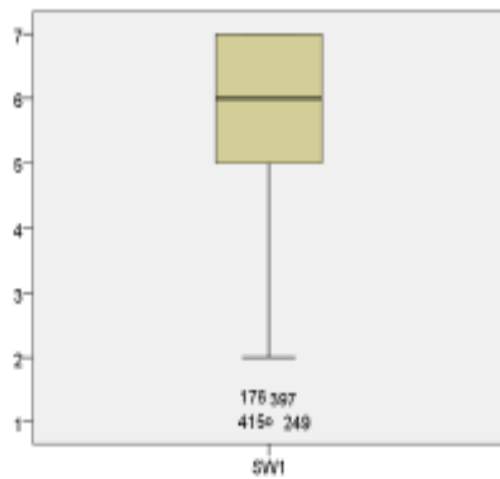
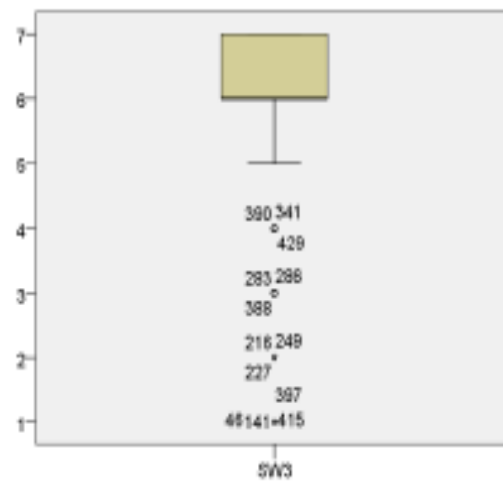
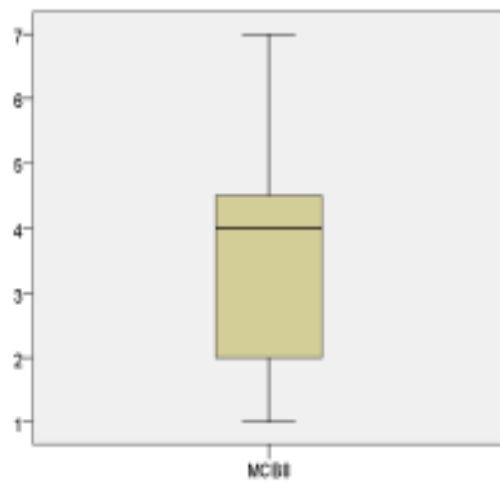
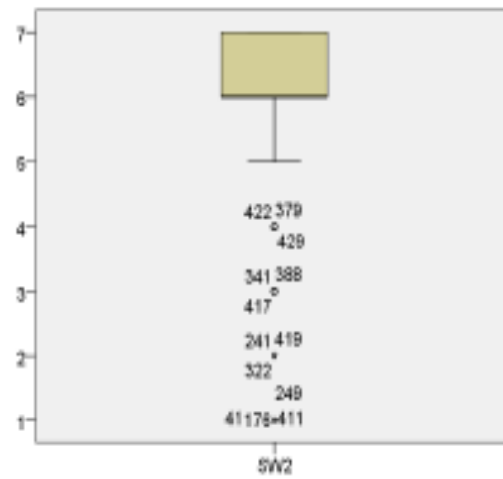
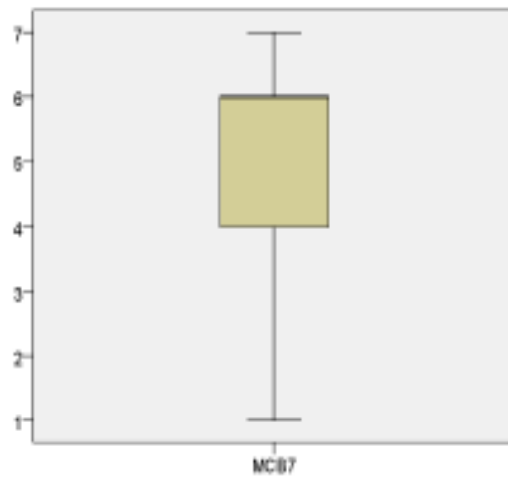
0% Current Progress 86% 100%

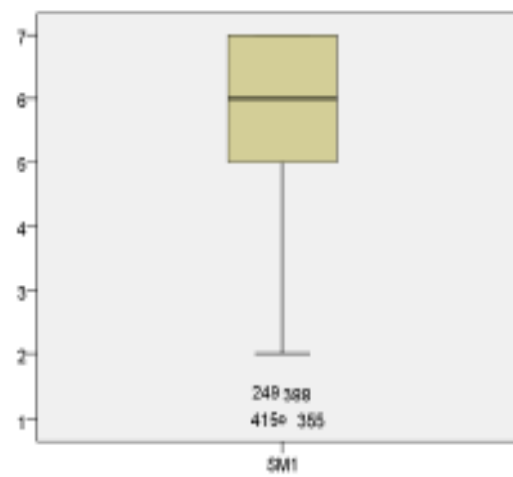
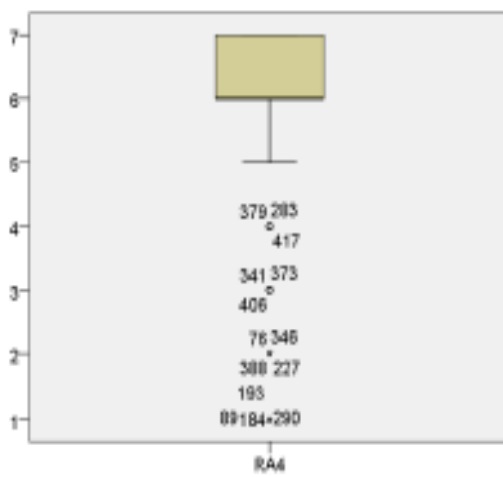
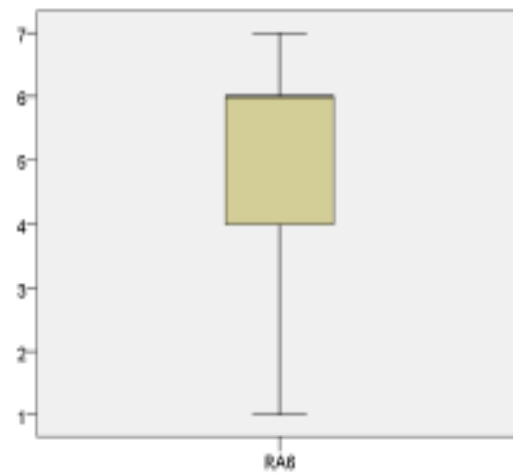
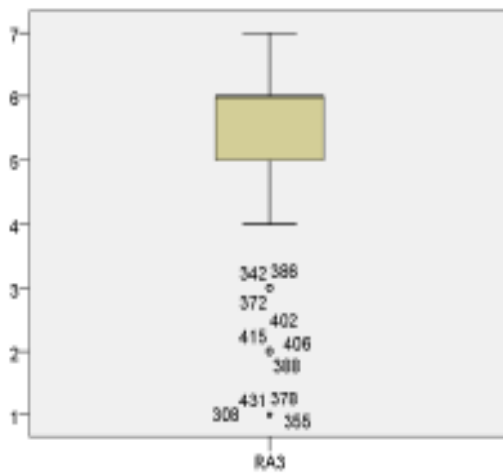
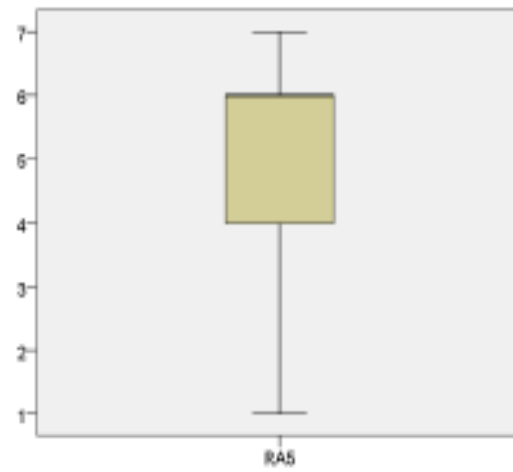
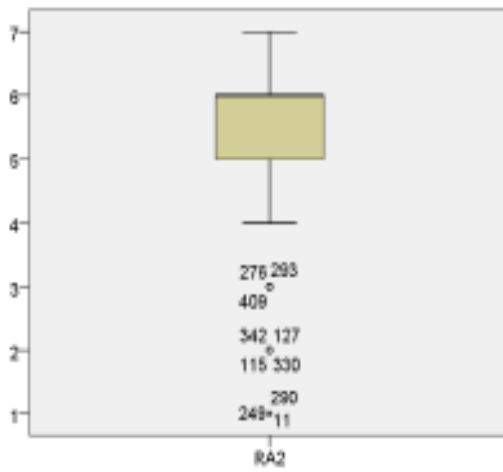


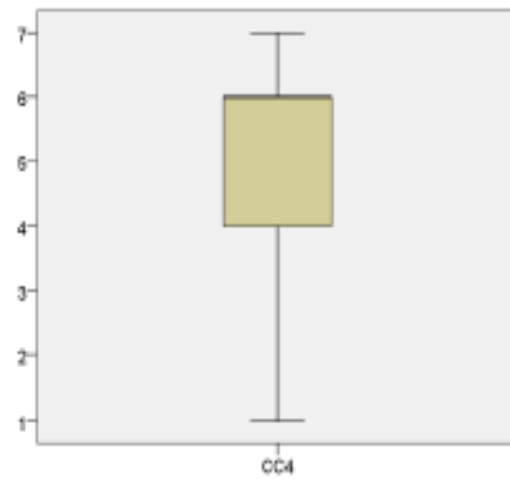
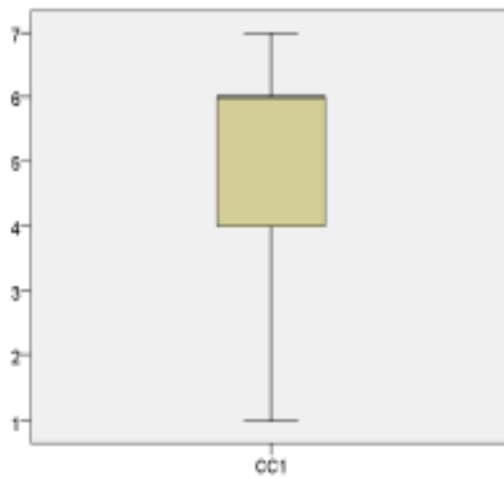
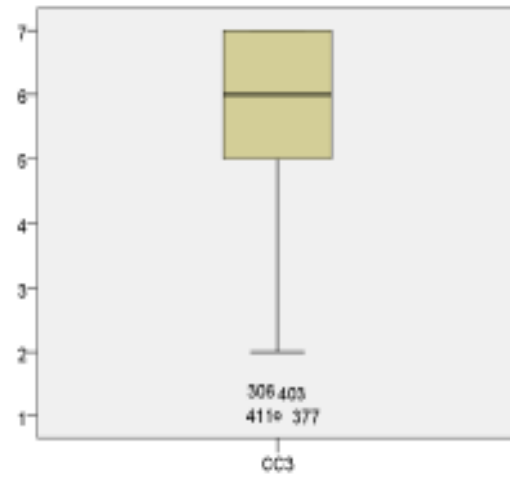
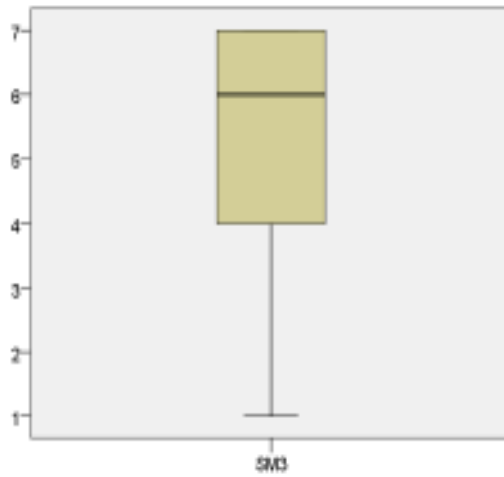
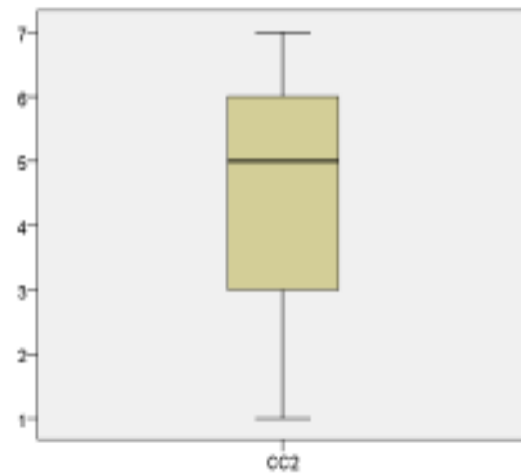
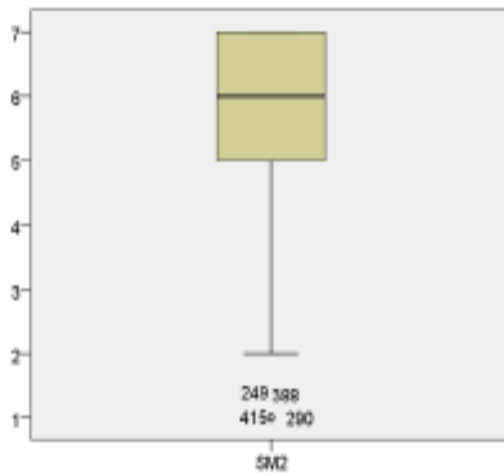
APPENDIX F

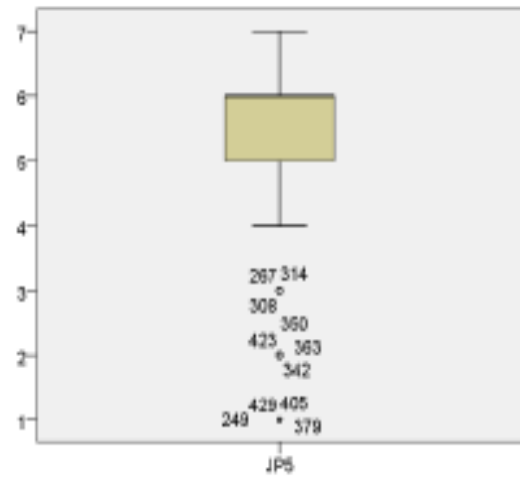
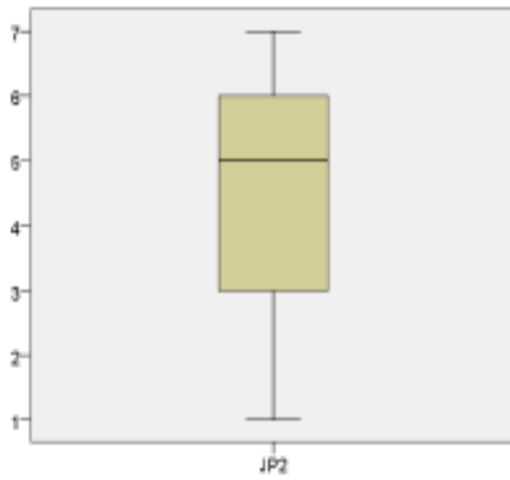
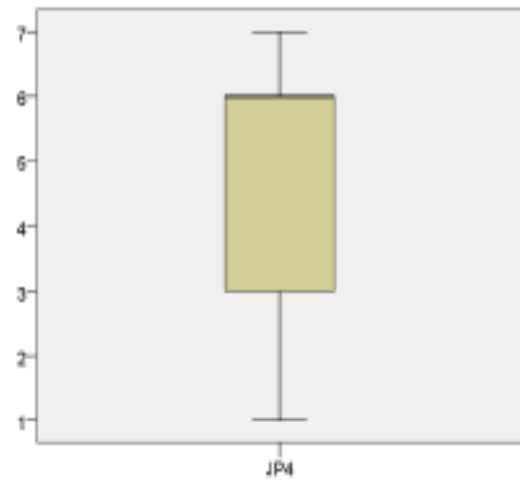
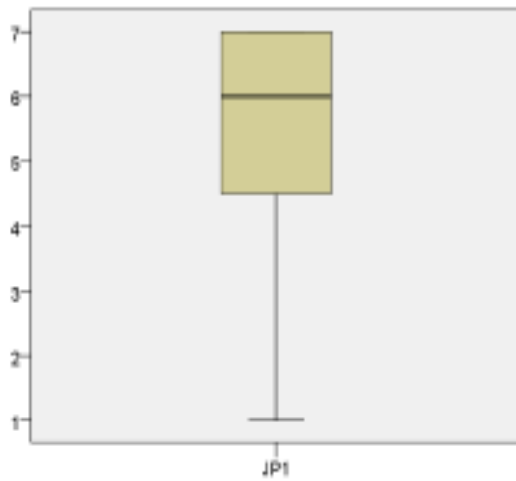
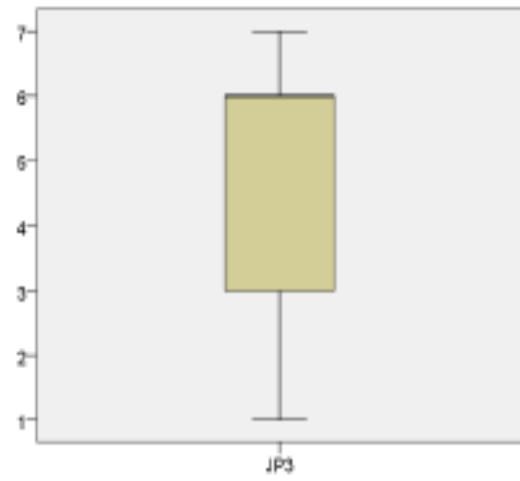
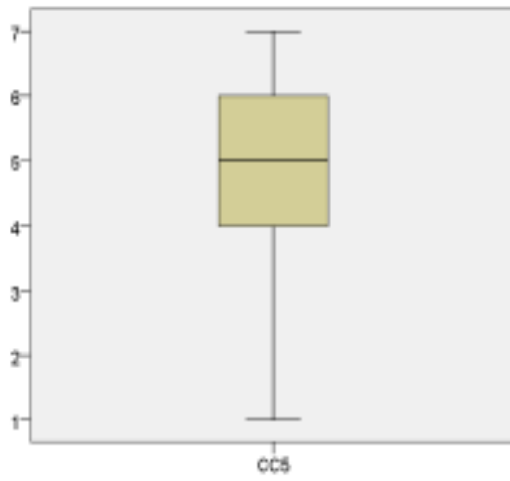
BOX PLOTS

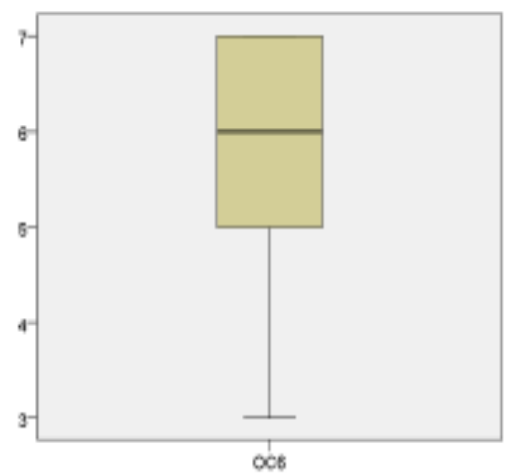
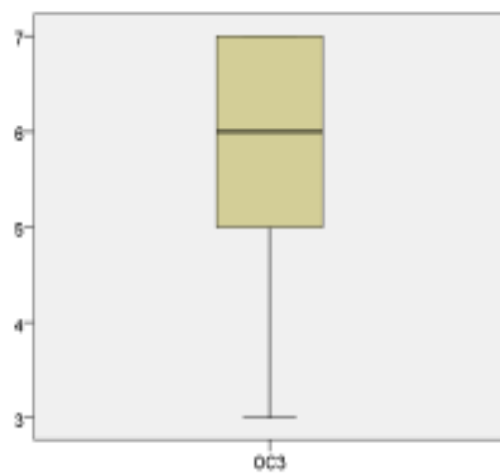
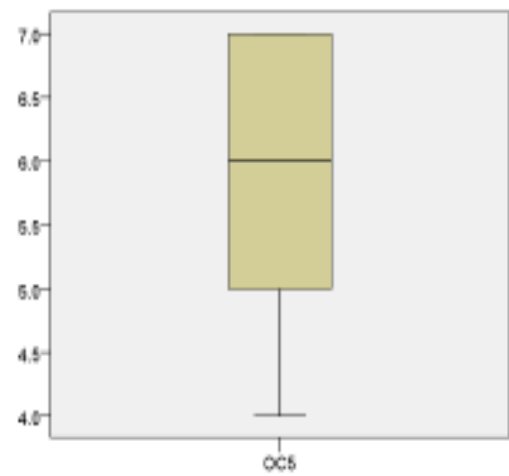
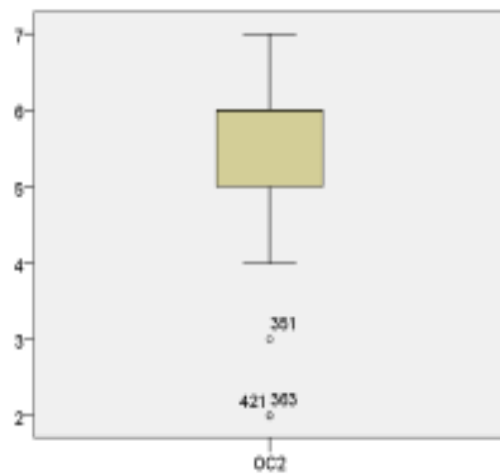
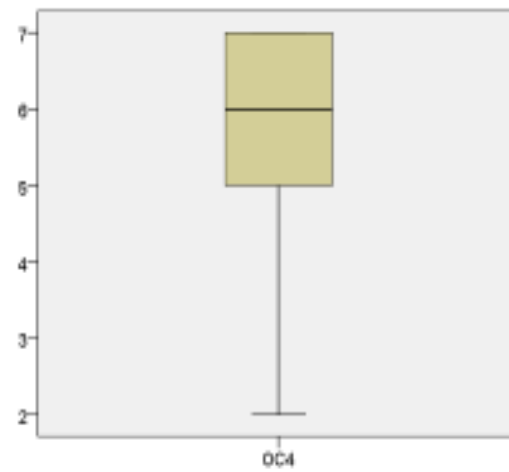
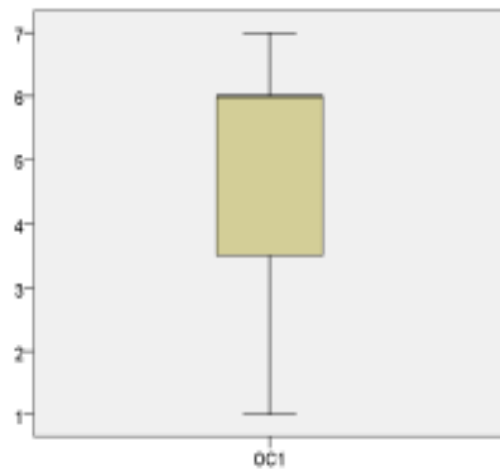












APPENDIX G
MAHALANOBIS DISTANCE STATISTICS

Mahalanobis Distance Statistics

Observation number	Mahalanobis d-squared	p1	p2
227	107.994	.000	.000
318	106.726	.000	.000
41	106.547	.000	.000
378	96.950	.000	.000
186	89.477	.000	.000
415	87.707	.000	.000
419	87.109	.000	.000
135	86.441	.000	.000
214	82.707	.000	.000
127	79.863	.000	.000
9	79.418	.000	.000
53	79.062	.000	.000
388	77.177	.000	.000
176	76.026	.000	.000
62	75.886	.000	.000
189	75.440	.000	.000
150	74.835	.000	.000
55	74.760	.000	.000
115	74.393	.000	.000
249	74.359	.000	.000
89	73.829	.000	.000
355	73.773	.000	.000
397	70.645	.000	.000
290	68.467	.000	.000
141	67.943	.000	.000
136	67.184	.000	.000
46	66.510	.000	.000
346	64.725	.000	.000
11	63.891	.000	.000
64	62.864	.001	.000
390	62.679	.001	.000
21	62.252	.001	.000
193	62.233	.001	.000
342	61.545	.001	.000
94	61.483	.001	.000
372	61.038	.001	.000
374	60.374	.001	.000
78	60.056	.001	.000
14	59.724	.001	.000
356	58.801	.002	.000

308	58.772	.002	.000
363	58.304	.002	.000
274	57.697	.002	.000
97	57.278	.003	.000
226	57.142	.003	.000
411	56.972	.003	.000
65	55.845	.004	.000
3	55.066	.005	.000
228	54.611	.006	.000
264	54.473	.006	.000
431	54.427	.006	.000
421	54.181	.006	.000
85	54.073	.006	.000
362	54.054	.006	.000
219	52.910	.008	.000
413	52.869	.008	.000
162	51.853	.011	.000
230	51.318	.012	.000
409	51.180	.013	.000
146	50.592	.015	.000
95	50.583	.015	.000
216	50.340	.015	.000
367	50.147	.016	.000
303	49.965	.017	.000
402	49.834	.017	.000
236	49.479	.019	.000
345	49.347	.019	.000
266	49.234	.020	.000
184	48.806	.022	.000
182	48.623	.023	.000
106	48.566	.023	.000
108	48.289	.025	.000
38	48.227	.025	.000
416	48.176	.025	.000
155	48.151	.025	.000
112	47.745	.028	.000
81	47.587	.029	.000
51	47.516	.029	.000
118	47.441	.030	.000
138	46.993	.033	.000
330	46.991	.033	.000
92	46.858	.034	.000
7	46.847	.034	.000

27	46.031	.040	.000
405	45.665	.043	.000
203	45.370	.046	.000
343	45.166	.048	.000
289	44.845	.051	.000
395	44.828	.052	.000
28	44.815	.052	.000
237	44.746	.053	.000
302	44.681	.053	.000
177	44.625	.054	.000
175	44.447	.056	.000
225	44.326	.057	.000
170	44.041	.061	.000
48	43.671	.065	.000
145	43.537	.067	.000
22	43.518	.067	.000
75	42.806	.077	.000

APPENDIX H
SQUARED MULTIPLE CORRELATION MATRIX

Squared Multiple Correlations

Item	Estimate
MC11	.783
MC10	.798
MC9	.684
JP5	.857
JP4	.816
JP3	.686
JP2	.424
JP1	.687
OC5	.710
OC4	.472
OC3	.680
OC2	.676
OC1	.402
CC3	.731
CC2	.680
CC1	.616
RA4	.680
RA3	.714
RA2	.274
RA1	.756
SW3	.765
SW2	.517
SW1	.833
MC1	.673
MC2	.756
MC3	.835
MC4	.776
MC5	.686
MC6	.732
MC7	.687
MC8	.482

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