The Advantages of Reporting to Your Mentor: A Comparison of Managers with Supervisory and Non-Supervisory Mentors

Sarah A. Hezlett University of Illinois at Urbana-Champaign

Theory suggests that protégé and mentor characteristics influence the development and process of mentoring relationships. This study investigates the role of one variable that is a joint function of protégé and mentor characteristics: the nature of the reporting relationship between protégés and their mentors. Results suggest managers who report to their mentors have higher organizational commitment and career satisfaction than those without mentors. However, other variables were not associated with the nature of the reporting relationship.

Keywords: Mentoring, Development, Career Success

Problem Statement

Over the past fifteen years, a noteworthy amount of research has been devoted to understanding mentoring in the workplace. The growth in this literature is highlighted by the recent appearance of several reviews on mentoring (Allen, Eby, Poteet, Lentz, & Lima, in press; Noe, Greenberger, & Wang, 2002; Wanberg, Welsh, & Hezlett, 2003). Despite this progress, research on mentoring is still relatively young (Wanberg et al., 2003). More research is needed to clarify our understanding of mentoring relationships.

Relatively little attention has been directed towards examining how mentoring relationships are affected by the combined characteristics of mentors and their protégés. The current study helps address this gap in the literature by examining whether or not the nature of the reporting relationship between a mentor and a protégé is associated with differences on other variables identified as pertinent to mentoring. The individual characteristics, development activities, manager support, proximal affective outcomes, and career success of four groups are compared: managers who report directly to their mentors; managers who have mentors in the organization but do not report to them; managers who have mentoring relationships both with their direct supervisors and with others in the organization; and managers without mentors in their own organizations.

Theoretical Framework

This research is grounded in the dynamic process model of mentoring recently proposed by Wanberg and her colleagues (Wanberg et al., 2003). Although this model focuses on formal, or arranged, mentoring relationships, the authors acknowledge that many aspects of this model are applicable to mentoring relationships in general. According to this model (Wanberg et al., 2003), mentoring relationships yield two broad classes of outcomes for protégés: proximal and distal. The proximal outcomes include four potential areas of protégé change: cognitive learning, skill-based learning, affective-related learning, and the development of social networks. Proximal outcomes are predicted to partially mediate the relationship between the receipt of mentoring and distal outcomes. Distal outcomes include extrinsic and intrinsic career success. Extrinsic career success can be characterized as the observable rewards individuals receive for their accomplishments, such as compensation and promotions. Intrinsic career success refers to employees' reactions to their accomplishments. Examples are career and life satisfaction.

Past research, recently summarized in a meta-analysis, supports the proposition that receipt of mentoring is associated with proximal affective outcomes (e.g., job satisfaction and organizational commitment) and with both intrinsic and extrinsic career success (Allen et al., in press). Few empirical studies, however, have examined other proximal protégé outcomes. One study by Lankau and Scandura (2002) found that the assistance provided by mentors (i.e., mentoring functions) was associated with learning about work relationships and interpersonal skill development. Clearly, more research on how mentoring influences cognitive and skill-based learning is needed.

Self-directed learning represents one of the major approaches to studying learning and development in the workplace (McCauley & Hezlett, 2001). Within this body of research, a number of studies have been devoted to understanding the antecedents of participation in development activities (e.g., Noe & Wilk, 1993; Maurer & Tarulli, 1994; Maurer, Weiss, & Barbeite, 2003). Of the antecedents that have been examined, manager support for

Copyright © 2004 Sarah A. Hezlett

development is one that has been consistently associated with participation in development activities (McCauley & Hezlett, 2001). Given that mentoring relationships are directed towards enhancing the professional development of protégés, it seems likely that receipt of mentoring also is related to participation in development activities. This proposition is not explicitly part of the dynamic process model of mentoring (Wanberg et al., 2003), but is consistent with the model's thesis that mentoring leads to protégé change. Therefore, development activities are examined in this study, along with proximal affective outcomes and distal outcomes.

Most prior research on participation in development activities has focused on employees' completion of new learning activities that stretch their knowledge and skills (e.g., reading books, job rotation), but theory suggests additional classes of behaviors are likely to be critical to development (McCauley & Hezlett, 2001). These include behaviors related to assessing one's development needs and establishing development goals (development planning), as well as behaviors involving reflection on what has been experienced or learned (development review). Therefore, development planning, learning activities, and development review are all included in this study.

According to the dynamic process model of mentoring (Wanberg et al., 2003), mentoring relationships have several kinds of antecedents. Protégé characteristics, mentor characteristics, and the combination of protégé and mentor characteristics are hypothesized to influence the nature of mentoring received. That is, the characteristics of the participants in a mentoring relationship will influence the support mentors provide and protégés receive. This support, in turn, drives the outcomes experienced by the protégé. The current study focuses on one combination of mentor and protégé characteristics: the nature of their formal work relationships.

Researchers have disagreed about whether the nature of the formal work relationship between individuals constrains the possibility of them having a mentoring relationship. Some have argued that certain formal relationships, such as a supervisor-subordinate relationship, interfere with the types of assistance the more experienced person can provide to the less experienced one, making it impossible for a true mentoring relationship to develop (e.g., Ostroff and Kozlowski, 1993). In contrast, others have proposed that employees benefit from receiving mentor-like support from clusters or constellations of developmental relationships that may involve more experienced people both within and outside the employees' work organization (Higgins & Kram, 2001). Although some studies (Baugh & Scandura, 1999; Fagan & Walter, 1982) have suggested that there are costs associated with having more than one developmental relationship (burnout, role conflict), several have concluded that having multiple mentors is associated with more favorable outcomes (Higgins, 2000; Peluchette & Jeanquart, 2000).

Considering these arguments and the research evidence in light of the dynamic process model of mentoring (Wanberg et al., 2003), it seems reasonable to expect that differences in the formal work relationships between mentors and protégés will lead to differences in the support provided by mentors, and, consequently, the proximal and distal outcomes experienced by protégés. Therefore, different kinds of reporting relationships between protégés and their mentors are likely to be associated with different proximal and distal outcomes.

Research Question and Propositions

The fundamental question addressed by this study is: How do work-related experiences differ for managers and professionals who report to their mentors, who do not report to their mentors, who have both supervisory and non-supervisory mentors, and who do not have mentors in their organizations? The experiences examined include manager's development activities (development planning, learning activities, and development review), proximal affective outcomes (job involvement, job satisfaction, and organizational commitment), intrinsic career success (career and life satisfaction) and extrinsic career success (total compensation, salary changes, and promotions). In addition, differences between the groups on their individual attributes (i.e., demographic characteristics, personality traits, and cognitive abilities) and the support they report receiving from their managers are investigated.

Consistent with the concept of constellations of developmental relationships (Higgins & Kram, 2001), it is expected that managers who have both supervisory and non-supervisory mentors will have the most favorable work experiences. That is, they will participate in more development activities, have more positive work attitudes, and experience the most intrinsic and extrinsic career success. Managers who report to their mentors (i.e., who have only supervisory mentors) are predicted to have the next most favorable experiences. This is because supervisory mentors are likely to have a greater ability to interact with and influence their protégés on a regular basis than non-supervisory mentors. Managers who have non-supervisory mentors are expected to have more favorable experiences than managers who do not have mentors within their organizations.

One limitation of many prior studies on mentoring is their failure to take into consideration the antecedents of mentoring relationships when examining the outcomes of mentoring relationships (Wanberg et al., 2003). As a result, it is not clear whether outcomes attributed to the receipt of mentoring are due to the relationship or protégé

attributes. The current study includes a number of demographic attributes and individual difference variables, permitting both their substantive investigation and an evaluation of their potentially confounding role in the results. Hypotheses regarding these variables are not specified. Although the dynamic process model of mentoring (Wanberg et al., 2003) identifies protégé characteristics as an important antecedent of receiving mentoring, research has found few employee attributes that consistently relate to the receipt of mentoring. Following a recommendation made by Wanberg et al., the current study extends previous research by examining the major traits represented in the five-factor, or "Big Five" model of personality (Hough & Schneider, 1996).

Managers' perceptions of how much support they receive from the managers they report to are expected to vary according to the status of their reporting relationship with their mentor(s). The two groups of managers who report to their mentors (i.e., those with supervisory mentors and those with both supervisory and non-supervisory mentors) are expected to report receiving more support from their managers than participants who have non-supervisory mentors or those who do not have mentors within their organizations.

Method

Procedures and Participants

Participants were recruited for a research project jointly sponsored by a consulting firm and a large research university. Managers and professionals who participated in services offered by the firm were invited to participate in the study after the delivery of the professional services was completed. Those invited to participate had taken part in either selection services or activities related to development or promotion (e.g., assessment centers).

Individuals who agreed to participate in the study were asked to complete a paper survey on their own time. Completed surveys were returned to the research university. For some participants, data also were available from demographic surveys, personality inventories, and cognitive tests that were completed as part of the professional services. Approximately two years after the first survey, follow-up surveys were sent to the 82 individuals who returned the initial survey. Time 2 surveys were completed by roughly half of the original participants (n = 40).

Some of the participants in the study responded to demographic questions. Their average age when the initial survey was completed was 40 (SD = 6.9, n = 62). Two-thirds of those providing information about their gender (n = 72) were male. Of those reporting their ethnic backgrounds (n = 62), most indicated they were Caucasian (92%). More than three-quarters (77%) of those who provided data about their education (n=62) had earned at least a bachelor's degree. Fifty-five of the participants indicated they had managerial responsibility. Of these, 31% were executives, 51% were middle managers, and 18% were supervisors or first-line managers. Eight participants reported they did not have management responsibility. Participants worked in a variety of industries, including financial services, transportation, retail, technology, shipping, and communications.

Comparisons of participants who completed the Time 2 survey with those who did not revealed only one difference. Non-responders reported receiving more total compensation at Time 1 [t = 2.08, df = 47.8 (unequal variances assumed), p = .043]. Overall, the groups appear fairly similar.

At Time 1, 81 of the survey respondents provided sufficient information to classify them into four groups reflecting their reporting relationships to their mentors. The first group (n = 15) includes employees who consider their manager as their mentor and also report having another mentor in the organization. Study participants in the second group (n = 17) perceive that the only mentor they have in their organization is their manager. The third group (n = 21) is composed of respondents who do not view their manager as a mentor, but have a mentor elsewhere in their organization. Individuals in the fourth group (n=28) do not have mentors in their organization. *Measures*

The current study utilizes items on the two surveys assessing manager support, development activities, proximal outcomes, and distal outcomes. Some measures from the original survey were omitted from the follow-up survey in the hopes of maximizing the response rate by decreasing the length of the instrument. Therefore, some variables were only assessed at Time 1. Internal consistency reliabilities (Cronbach's alpha) for measures at Time 1 and Time 2 are shown in Tables 1 and 2, respectively.

Manager support. At Time 1, participants were asked to rate the extent to which they felt their managers supported them. Sixteen items were rated on a five-point, Likert-type scale with anchors ranging from "Not at All" to "To a Very Great Extent." Sample items are: "My manager has coached me in specific areas," "My manager has conveyed feelings of respect for me as an individual," and "I have tried to model my behavior after my manager."

Development activity. Three kinds of development activity were measured. Development planning was measured by asking participants to review a list of seven behaviors and check all they had performed in the past six months. Examples of the behaviors listed are: "Evaluated your own strengths and development needs" and "Targeted specific skill areas to develop." Learning activity was assessed by asking participants to indicate how

frequently they had performed certain activities in the past six months. The anchors for the five-point response scale ranged from "Never" (coded zero) to "Over 6" (coded six). Twelve items were included in the final scale. Sample items include "Read books or articles to update my skills" and "Practiced skills on-the-job while handling my regular responsibilities." To measure *Development Review*, participants were asked to indicate how often they performed three behaviors. Anchors on the six-point response scale ranged from "Never" (coded zero) to "Daily" (coded 5). One sample item is "Reflected on what I have learned."

Proximal outcomes. The same five-point response scale was used in measuring all three proximal, affective outcomes examined in the study. The anchors on the scale ranged from "strongly disagree" to "strongly agree." Job Involvement was assessed with ten items, two of which were negatively worded and, consequently, reverse-scored when scale scores were computed. An example of one item from the job involvement measure is "I consider my job to be central to my existence." Five items were used to measure Job Satisfaction, two of which were reverse-scored. A sample item is: "I find real enjoyment in my work." Organization Commitment was measured with 15 items, one of which was "I really care about the fate of this organization."

Distal outcomes. Two indices of intrinsic career success were used in the study. Career Satisfaction was measured with nine items. Responses were made on a five-point scale with anchors ranging from "not at all satisfied" to "extremely satisfied." One of the items was "How satisfied are you with the success you have achieved in your career?" Life Satisfaction was evaluated with five items using the same response scale used in measuring the proximal affective outcomes. A sample item is: "I am satisfied with my life." At Time 1, fill-in-the-blank questions were used to assess two indicators of extrinsic career success: total compensation and change in base salary in the past year. Participants also were asked whether or not they had received a promotion in job level in the past year.

Individual differences. For most participants, data regarding personality and general cognitive ability were available. The "Big Five" personality dimensions (Extraversion, Neuroticism, Conscientiousness, Agreeableness, and Openness to Experience) were assessed with the Global Personality Inventory (GPI). This 300-item instrument was developed with input from psychologists in 14 countries in Europe, Asia, North America, and South America and refined using data collected in the U.S., China and Spain. Items are rated on a five-point, Likert-type scale with anchors ranging from "strongly agree" to "strongly disagree." Thirty of the GPI's 37 scales measure facets of the "Big Five." Reported internal consistencies of most scales are adequate and criterion-related validity data are promising (Schmit, Kihm, & Robie, 2000). To create more homogenous scales for the present study, items pertaining to achievement orientation and initiative were omitted from the Extraversion scale. Conscientiousness was separated into two sub-dimensions: Need for Achievement and Dependability. This scoring is consistent with research supporting the differential validity of these traits (Hough & Schneider, 1996). General cognitive ability was measured with a composite of participants' scores on the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 1980) and the verbal reasoning section of the Wesman Personnel Classification Test (Wesman, 1965). Limitations

This study has some limitations that should be kept in mind when considering the results. First, the sample is primarily comprised of managers and, consequently, the findings may not generalize to people in other occupations. Second, participants were not assigned to different mentoring "treatments." As is typical in studies on mentoring, participants were asked to provide information about mentoring relationships that had occurred without researchers' intervention. The lack of random assignment calls into question the assumption of the equivalence of the different groups. In fact, theories of mentoring suggest that protégés' attributes should affect their mentoring relationships, yielding groups that differ on more than their mentoring experiences. Comparison of the groups on a number of demographic and individual differences permits the evaluation of some potential differences between the groups. However, it is possible that observed differences between the groups on any outcomes may be due to unmeasured variables, rather than differences in mentor-protégé reporting relationships. Finally, the internal consistency reliabilities of most measures used in this study are adequate. Exceptions to this trend involve the measures of development planning and review. Conclusions pertaining to these scales must be considered tentative.

Results

To evaluate the comparability of the four groups in terms of their demographic backgrounds and individual differences, a series of tests were performed. ANOVAs were conducted for variables that were continuous (age, tenure with current organization, personality traits, and cognitive ability), while non-parametric tests were performed on categorical variables (gender, management level, and education). No differences were observed, suggesting that biographic data, personality traits, and cognitive ability do not differentiate among those with supervisory mentors, with non-supervisory mentors, with both kinds of mentors, and without mentors.

Table 1. Mean Differences in Time 1 Manager Support, Development Activities, and Outcomes by Mentor Status at Time 1

Time 1							
			Supervisory and Other	Only Supervisory	Only Non- Supervisory	N. M.	Ε
Manager	α	1.7	Mentor	Mentor	Mentor	No Mentor	F-test
Manager Support	.94	M	3.80	3.93	2.80	2.86	15.36***
		SD	.53	.64	.86	.60	
		n	15	17	21	28	
Dev. Planning	.66	M	4.80	4.82	5.43	4.86	0.67
		SD	1.52	1.78	1.57	1.74	
		N	15	17	21	28	
Learning Activities	.71	M	3.04	2.85	2.91	2.51	1.48
Learning Fred vides	•,, •	SD	1.14	0.84	0.87	0.80	1.10
		N	15	17	21	28	
		-,	10			_0	
Dev. Review	.45	M	2.24	2.27	2.19	2.00	.57
		SD	0.73	0.85	0.68	0.85	
		N	15	17	21	28	
Job Involvement	.79	M	2.76	3.19	2.98	2.95	1.67
		SD	0.41	0.67	0.55	0.54	
		N	15	17	21	28	
Job Satisfaction	.73	M	4.17	4.18	4.20	4.04	0.62
		SD	0.58	0.45	0.45	0.44	
		N	15	17	21	28	
Org. Commitment	.91	M	3.87	4.13	3.84	3.52	4.08**
org. communicati	•,, 1	SD	0.71	0.45	0.48	0.62	
		N	15	17	21	28	
Career Satisfaction	.86	M	3.79	3.65	3.76	3.36	3.08*
	.00	SD	0.49	0.67	0.57	0.46	3.00
		N	15	17	21	28	
Life Satisfaction	.82	M	3.91	3.48	3.91	3.57	2.21
	.02	M SD	0.58	0.67	0.68	0.67	2.21
		N	15	17	21	28	
Total Compensation	-	M	128,529.33	281,421.25	167,258.82	179,569.23	1.53
		SD	77,224.06	372,332.04	144,900.57	152,068.97	
		N	15	16	17	26	
Salary Change	-	M	8,951.93	10,052.38	5,314.64	12,805.00	0.59
		SD	5,956.90	9,278.29	7,466.37	28,467.07	
		N	15	16	17	28	
Promotions	_	M	.40	.24	0.15	0.21	1.03
5 3 4 4 5 4 5 4 5 4 5 6 6 6 6 6 6 6 6 6 6 6		SD	.51	.44	0.37	0.42	1.00
		N	15	17	20	28	

^{*}p < .05, **p < .01, *** p < .001

Next, ANOVA was utilized to compare the four groups in terms of their perceptions of the support they received from their managers. As can be seen in Table 1, substantial differences were observed. Post hoc tests (Tukey's honestly significant differences) indicated that both groups who view their managers as their mentors rate

them as providing more support than the two groups who don't view their managers as their mentors. There were no differences between study participants who only had supervisory mentors and those who had both a supervisory mentor and another mentor, nor were there differences between study participants who only had a non-supervisory mentor and those without mentors. This pattern of results was expected.

Results for development activities, proximal outcomes, and distal outcomes at Time 1 also are shown in Table 1. Significant differences were observed for only one proximal outcome (Organizational Commitment) and one distal outcome (Career Satisfaction). Post hoc tests (Tukey's honestly significant differences) indicate that managers and professionals with only supervisory mentors have significantly higher organizational commitment than those without mentors in the organization. Those without mentors in their organization had marginally less career satisfaction than those with both supervisory and non-supervisory mentors (p = .072) and those with only non-supervisory mentors (p = .060)

Results for outcomes reported at Time 2 are shown in Table 2. Many of the participants who completed both surveys experienced changes in the nature of their reporting relationship to their mentor (mentor status) between Times 1 and 2. Consequently, two sets of ANOVAs were conducted. The first set examined the relationship between mentor status at Time 1 and outcomes at Time 2; the second investigated the relationship between mentor status at Time 2 and outcomes during the same time period. Mentor status at Time 1 was not related to outcomes at Time 2. However, mentor status at Time 2 was significantly associated with organizational commitment. Post hoc tests indicated that study participants who only viewed their manager as their mentors at Time 2 had significantly higher organizational commitment than those without mentors in the organization. There also was a marginally significant effect of mentor status at Time 2 on career satisfaction at Time 2 (p = .08). Note that all results involving Time 2 outcomes must be interpreted cautiously due to the modest overall sample size (N = 40) and the small number of cases in certain groups.

Discussion

Three findings stand out in the present study. First, no differences were observed between those with supervisory mentors, those with non-supervisory mentors, those with both kinds of mentors, and those without mentors in their organizations on any of the background characteristics or individual differences variables examined. These results are counterintuitive and appear contradictory to the dynamic process model on which the current study is based. However, these findings are not inconsistent with previous research in which few protégé characteristics have consistently differentiated those with and without mentors. Additional research is needed to clarify which protégé and mentor characteristics affect mentoring relationships and thus, should be included in theories of mentoring.

Second, the nature of the formal reporting relationship between managers and their mentors was not related to the managers' development activity, job involvement, job satisfaction, life satisfaction or extrinsic career success. These results diverge from prior research indicating individuals with mentors have more favorable work-related attitudes than those without. One possible explanation for this finding is that managers in this sample who did not have mentors within their organizations were protégés to people outside their organization. Additional research is needed to evaluate whether protégés with mentors who work for the same organization have different experiences than protégés with mentors who work elsewhere. Given past research indicating participation in development activities is associated with manager support, the lack of differences between groups on development activity also was unexpected. For learning activities, the pattern of results is consistent with the idea that those with more developmental relationships will engage in more development. Further research with larger samples is needed to determine if this trend is significant. Note that the same pattern does not appear to hold for development planning or review. This may be a sign that support does not influence these developmental steps, but more reliable measures of planning and review must be created before definitive conclusions can be drawn.

Third, meaningful differences were found between groups on organizational commitment and, to a lesser extent, career satisfaction. Managers with supervisory mentors had greater organizational commitment and were more satisfied with their careers than managers who did not have mentors within their organization. Past research has attributed differences in organizational commitment between those with and without mentors to the presence (or absence) of mentoring. However, in some studies, as much as 85% of participants report that their mentor is their manager. It may be the case that differences in organizational commitment are not due to differences in the receipt of mentoring, but the quality of support employees receive from their managers. Additional research with larger samples is needed to tease out whether there are small, but meaningful differences, in organizational commitment among employees with non-supervisory mentors, both supervisory and non-supervisory mentors, and those without mentors in their organization. Failure to find such differences would suggest leadership, rather than mentoring, drives organizational commitment.

Table 2. Mean Differences in Time 2 Proximal and Distal Outcomes by Mentor Status at Times 1 and 2

			Supervisory and Other	Only Supervisory	Only Non- Supervisory		
	α		Mentor	Mentor	Mentor	No Mentor	F-test
				tor Status at Time			
Job Satisfaction	.76	M	3.91	4.18	4.24	3.89	.91
		SD	0.79	0.54	0.66	0.52	
		N	7	10	9	14	
Org. Commitment	.95	M	4.07	3.70	3.92	3.61	.69
		SD	0.55	0.82	0.69	0.85	
		N	7	10	9	14	
Career Satisfaction	.92	M	3.89	3.31	3.79	3.21	1.82
		SD	0.42	1.06	0.79	0.66	
		N	7	10	9	14	
Life Satisfaction	.87	M	3.89	3.38	3.78	3.43	1.03
		SD	0.43	1.10	0.84	0.44	
		N	7	10	9	14	
Total Compensation	-	M	157,785.71	144,000.00	175,125.00	168,855.77	.51
		SD	88,393.94	79,961.10	174,234.19	83,600.61	
		N	7	10	8	13	
			Ment	tor Status at Time	2		
Job Satisfaction	.76	M	3.80	4.31	4.30	3.86	1.97
		SD	0.69	0.55	0.41	0.64	
		N	4	9	8	19	
Org. Commitment	.95	M	3.80	4.36	3.93	3.45	3.70*
		SD	0.82	0.46	0.37	0.83	
		N	4	9	8	19	
Career Satisfaction	.92	M	4.00	3.86	3.56	3.17	2.47
		SD	0.26	1.12	0.56	0.68	
		N	4	9	8	19	
Life Satisfaction	.87	M	3.10	3.91	3.60	3.51	1.22
		SD	0.96	1.20	0.58	0.42	
		N	4	9	8	19	
Total Compensation	-	M	249,333.33	175,055.56	100,625.00	167,340.28	1.78
		SD	52,538.87	173,026.81	35,124.01	75,701.98	
		N	3	9	8	18	

^{*}p < .05, **p < .01, *** p < .001

Contributions to HRD

This study has broken new ground by systematically examining whether the work-related attributes and experiences of managers vary based on the nature of their formal reporting relationship with their mentors. Drawing on models of mentoring relationships, developmental relationships, and development activities, several hypotheses were proposed and tested. This study also extended prior research by incorporating two new sets of variables into an investigation of mentoring: protégés' scores on all five of the "Big 5" personality traits and three kinds of development activities. In several ways, the results diverged from expectations, provoking ideas for new research. Overall, it appears that some work-related experiences and outcomes are not restricted to employees with a particular kind of reporting relationship with their mentors.

These results have implications for HRD practitioners. First, they suggest that when designing mentoring programs, there is room for flexibility in the nature of reporting relationships between managers and protégés. Second, HRD practitioners who are interested in enhancing employees' commitment to their organizations may wish to focus on improving supervisor-subordinate relationships.

References

- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (in press). Career benefits associated with mentoring for protégés: A Meta-analysis. *Journal of Applied Psychology*.
- Baugh, S. G., & Scandura, T. A. (1999). The effects of multiple mentors on protégé attitudes toward the work setting. *Journal of Social Behavior and Personality*, 14, 503-521.
- Fagan, M. M., & Walter, B. (1982). Mentoring among teachers. Journal of Educational Research, 76, 113-118.
- Higgins, M. C. (2000). The more the merrier? Multiple developmental relationships and work satisfaction. *Journal of Management Development*, 19, 277-296.
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review*, 26, 264-288.
- Hough, L. M., & Schneider, R. J. (1996). Personality traits, taxonomies, and applications in organizations. In K. R. Murphy (Ed.), *Individual differences and behavior in organizations*. (pp. 31 88). San Francisco: Jossey-Bass.
- Lankau, M. J., & Scandura, T. A. (2002). An investigation of personal learning in mentoring relationships: Content, antecedents, and consequences. *Academy of Management Journal*, 45, 779-790.
- McCauley, C. D. & Hezlett, S. A. (2001). Individual development in the workplace. In N. Anderson, D. S. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.) Handbook of Industrial, Work & Organizational Psychology, (Vol. 1, pp. 313 335). London: Sage Publications.
- Maurer, T. J., & Tarulli, B. A. (1994). Investigation of perceived environment, perceived outcome, and person variables in relationships to voluntary development activity by employees. *Journal of Applied Psychology*, 79(1), 3-14.
- Maurer, T. J., Weiss, E. M. & Barbeite, F. G. (2003). A model of involvement in work-related learning and development activity: The effects of individual, situational, motivational, and age variables. *Journal of Applied Psychology*, 88, 707-724.
- Noe, R. A. & Wilk, S. L. (1993). Investigation of the factors that influence employees' participation in development activities. *Journal of Applied Psychology*, 78(2), 291-302.
- Noe, R. A., Greenberger, D. B., & Wang, S. (2002). Mentoring: What we know and where we might go. *Research in Personnel and Human Resources Management*, 21, 129-174.
- Ostroff, C. & Kozlowski, S. W. (1993). The role of mentoring in the information gathering processes of newcomers during early organizational socialization. *Journal of Vocational Behavior*. 42(2), 170-183.
- Peluchette, J. V. E., & Jeanquart, S. (2000). Professionals' use of different mentor sources at various career stages: Implications for career success. *Journal of Social Psychology*, *140*, 549-564.
- Schmit, M. J., Kihm, J. A., & Robie, C. (2000). Development of a global measure of personality. *Personnel Psychology*, 53, 153-193.
- Wanberg, C. R., Welsh, E. T., & Hezlett, S. A. (2003). Mentoring research: A review and dynamic process model. *Research in Personnel and Human Resources Management*, 22, 39-124.
- Watson, G.B. & Glaser, E. M. (1980). WGCTA®/Watson-Glaser Critical Thinking Appraisal Manual®. Forms A and B. San Antonio: The Psychological Corporation, Harcourt Brace & Company.
- Wesman, A. G. (1965). Wesman personnel classification test manual, 1965 Revision. The Psychological Corporation, Harcourt Brace & Company.