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Time and proximity as factors of quality mentorship

Brandon Keith Patrick

TIME AND PROXIMITY AS FACTORS OF QUALITY MENTORSHIP

A Thesis

Presented to the

Faculty of

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San Bernardino

In Partial Fulfillment

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Master of Science

in

Psychology:

Industrial/Organizational

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ABSTRACT

This research examines the impact of time and proximity on the quality of formal mentor program in organizations. Past research has looked at the differences between informal and formal mentor programs and the effects they have on career-related and psychosocial outcomes. This study proposed that a quality formal mentor program will be one where the mentor and protégé are close in proximity and that the time the mentor spends with the protégé will lead to higher career-related and psychosocial outcomes. It was hypothesized that there would be a positive relationship between mentor proximity and career-related and psychosocial outcomes; and that there would be a positive relationship between time spent with mentor and career-related and psychosocial outcomes. It was also hypothesized that time and proximity leads to higher mentor outcomes, which leads to higher satisfaction with the mentor experience. Participants from several large manufacturing organizations throughout the United States with formal mentoring programs completed a questionnaire consisting of multiple measurements in the areas of interest. The hypothesized model was tested using path analysis in Equation Software 6.1 (EQS). The results indicated a negative relationship between physical

proximity and psychosocial outcomes, while perceived proximity is not correlated with psychosocial outcomes; and a positive relationship between both perceived and physical proximity and career-related outcomes. The positive relationship between time spent with mentor and psychosocial outcomes was not supported. There was a correlation between time spent with mentor and career-related outcomes. The last hypothesis, that time and proximity would lead to higher mentor outcomes, which leads to higher satisfaction with mentor experience had partial support. The study's limitations and implications for future research and application to organizations are discussed.

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CHAPTER ONE

INTRODUCTION

Most people are familiar with the concept of a mentor. In organizations a mentor is someone who is a senior member of the organization and has vast experience from which other people can benefit. The mentor's duty is to guide a less experienced individual in his or her organizational growth. While organizations seem to be aware of the potential benefits from having mentors for employees, they often put mentor programs into operation without much research to structure a quality mentor program. Past research has looked at the differences between informal and formal mentor programs and gender differences. However, there is still a deficiency in the research as to what makes a quality formal mentor program.

This study looked at proximity and time in a formal mentor program. The proximity of the mentor should lead to a greater amount of career-related and psychosocial outcomes reported by the protégé. Likewise, the amount of time spent with a mentor is suggested to also increase the amount of reported career-related and psychosocial outcomes, and thus higher satisfaction with the mentor experience.

There are many definitions of mentoring, but the one chosen for the purpose of this thesis is from Anderson and Shannon (1988) in which mentoring is an intentional, nurturing, insightful, and supportive process. The relationship in a formal mentor program is forced, so it is important that the participants have a sense of trust and respect for one another (Wang, Tomlinson, & Noe, 2010). Anderson and Shannon (1988) claim that a mentor needs to be aware that they are a mentor and should know the responsibilities that come with being a mentor. This definition supports the idea of a formal mentor program in which the organization is making an intentional effort to provide the protégés with support and guidance to enhance their career-related and psychosocial outcomes. It also defines that the mentor needs to be a willing participant who is available and accessible to the protégé.

Much of the past research has looked at whether informal or formal mentor programs lead to better outcomes for the protégé and focuses on the outcomes stated by Kram (1985), which are broken down into two categories. These categories are the career-related and psychosocial outcomes. Career-related outcomes are those that provide the protégé with exposure to upper management, new assignments, and guidance, and can lead to promotion

opportunities. Psychosocial outcomes are those that provide the protégé with social support and help with adapting to the organizational culture (Kram, 1985). Individuals who have been mentored report having a greater number of promotions, believe they will advance in their careers more, are more satisfied and committed to their careers, and have stronger intentions of staying with a company than those who have not been mentored (Allen, Eby, Poteet, Lentz, & Lima, 2004).

There is the argument amongst mentoring researchers about which type of mentoring leads to the best outcomes for the protégé. The types are split into informal and formal programs. The informal program is one where the organization does not acknowledge a specific individual as a mentor and a specific individual as a protégé. In the informal relationship, mentors and protégés find each other and the mentor usually makes himself or herself more readily available for the protégé (Noe, 1988; and Chao, Walz, & Gardner, 1992).

The formal mentoring program is one where the organization has determined individuals who will be mentors and protégés. The organization assigns the protégé to a mentor who will be responsible for fulfilling the career-related and psychosocial functions for the protégé.

The mentor is usually an individual who has been with the organization for many years and is in a position to expose the protégé to new projects, and interactions with senior management (Noe, 1988; and Chao, Walz, & Gardner, 1992).

Formal mentor programs are better at fulfilling the psychosocial function than informal mentor programs (Chao, Walz, & Gardner, 1992). Protégés report that when involved in a formal mentor program they received more feelings of acceptance and confirmation (Noe, 1988). The psychosocial function can be easily obtained in the formal mentor program since it is not inhibited by the process of finding a mentor like in the informal mentoring relationship (Godshalk & Sosik, 2000). However, it has been demonstrated that other members of the organization not in the formal mentor roles such as supervisors and coworkers can meet the psychosocial functions (Chao, Walz, & Gardner, 1992).

Career-related functions however, are not as easily fulfilled by just anyone in the organization (Godshalk & Sosik, 2000). Noe (1988) reported that protégés in a formal mentor program received limited career-related functions when compared to those protégés in an informal program as a function of amount of time spent with the mentor. However, only slight differences in career-related

functions were found when compared between an informal and formal program by Chao, Walz, and Gardner (1992). Tepper (1995) found that formal mentors provided as much career-related functions as the informal mentors did when accessibility was higher. In most of the previous research the formal mentor was not readily available for the protégé, which reduced the amount of career-related functions the protégé received (Tepper, 1995).

Another aspect of the mentoring function that has been heavily researched was whether or not the gender differences had an influence over the career-related and psychosocial outcomes received by the protégé. It has been suggested that mentoring could help reduce barriers that are faced by women in the work force. Research has looked at the differences in the outcomes of women and men when they are paired with a mentor of the same sex and a mentor of the opposite sex. No differences in career-related and psychosocial functions were reported regardless if the protégé was in a same sex or an opposite sex relationship (Dreher & Ash, 1990; Ragins & Cotton, 1999; and Lyness & Thompson, 2000).

The amount and quality of the benefit to the protégé was the same in same gender and opposite gender relationships (Dreher & Ash, 1990). The concerns faced by

those in opposite gender mentor-protégé relationships are those of public image, and what others might perceive as going on in the relationship. Same gender mentors and protégés are more likely to spend time together outside of the workplace. However, gender has no influence on the overall quality of the career-related or psychosocial outcomes for the protégé (Burke & McKeen, 1995; and Ragins & Cotton, 1999).

A mentor program can be beneficial to the organization, the mentor, and the protégé. Being a mentor opens up an opportunity for an individual within the organization that has hit a career plateau. It provides the mentor with new challenges and gives a renewed sense of job involvement (Rotondo & Perrewe, 2000). This seasoned employee who is chosen to become a mentor has a renewed sense of importance. It provides the new mentor with an opportunity for additional growth and may prevent blaming the organization for lack of advancement opportunities. Which, in turn leads to increased job satisfaction and reduced intentions of quitting, decreasing behavioral responses, and psychological withdrawal (Rotondo & Perrewe, 2000).

The protégé also receives numerous benefits from the mentor-protégé relationship. Protégés are more confident

and comfortable engaging senior organizational members, along with increased confidence when faced with new organizational projects (Tepper, 1995). Career-related and psychosocial functions received from the mentor led to an increase in salary levels, promotions, and more positive performance ratings (Scandura, 1992; and Collins, 1994).

The problems facing organizations with a formal mentor program are who should be a mentor, who should be a protégé, and what should go into a quality mentoring program. It is clear that having a formal mentor program is beneficial to an organization by reducing turnover, increasing performance, and also helping adapt the protégé into the organizational culture (Rotondo & Perrewe, 2000).

In order to have a quality formal mentor program; negative experiences need to be prevented. Any negative experience in the mentor-protégé relationship can lead to negative outcomes for the organization, the mentor, and the protégé. Eby and Allen (2002) identified two factors that led to negative experiences for those involved in a mentor-protégé relationship. The two factors were Distancing/Manipulative Behavior and Poor Dyadic fit.

Distancing/Manipulative Behavior are those behaviors that the protégé perceives the mentor as possessing. These behaviors are present when the mentor puts their own

career advancement above the protégés, takes credit for the protégé's work and abuses the mentor-protégé relationship. Another example is when the mentor also makes himself less available for their protégé and intentionally does not provide them with visibility opportunities (Eby & Allen, 2002).

The Poor Dyadic fit is simply put as a lack of compatibility between the mentor and the protégé. There is no match in personality between the mentor and protégé. Other things that could represent poor dyadic fit are work styles, and a lack of interpersonal skills. Both distancing/manipulative behavior and poor dyadic fit lead to negative experiences for the protégé (Eby & Allen, 2002).

An organization needs to take care when selecting individuals who are to become a mentor. The mentor should be an individual who has the ability to give the protégé opportunities that will increase the protégés organizational visibility. The mentor should be in a position to provide the protégé with opportunities to work on new projects and provide the protégé with feedback on their performance. It is also important that the mentor is provided with enough time to interact with the protégé (Pfleeger & Mertz, 1995).

Armstrong, Allinson, and Hayes (2002) suggest that the mentor should be someone who is not in the immediate chain of command for the protégé. This helps to eliminate any concerns that the protégé may have and open up the communication between the mentor and protégé. When protégés open up to their mentors and seek more advisement it helps strengthen the dyadic fit (Young & Perrewe, 2000). Wang, Tomlinson, and Noe (2010) found that mentors are more invested in the mentor/protégé relationship when they perceive that trust, approval, and respect will be reciprocated from the protégé. Since formal mentoring programs match mentor to protégés this needs to be developed during the course of the mentoring because this is not a naturally formed relationship. The protégés' behaviors and receptiveness toward the mentor also affects how much time and effort the mentor is willing to place in the mentor/protégé relationship (Eby, Durley, Evans, & Ragins, 2008).

Proximity has been studied by social psychologists interested in how relationships form and how it affects attractiveness to other individuals. It has been shown that physical proximity is a critical component to initiating attraction. The closer in physical distance individuals are to one another, the higher the probability

is that they will form a bond between each other. Attraction to another person can be influenced by the emotional state each person is in when they first meet. This has nothing to do with the other individual, so being closer in proximity allows individuals more opportunities to interact and overcome any negative feelings caused by an emotional state they were in during the initial meeting (Baron & Byrne, 1997).

An important function of creating friendships in the early stage of the development is being in close proximity to the individual in which the relationship is being developed. When people work in close proximity to one another it helps those individuals to create bonds. In their research Sias and Cahill (1998) define close proximity as working in the same department or in the same office as one another. This close working proximity led to increased communication amongst coworkers, which led to a change in their relationship. In a short time frame the type of communication changed as a result of the working proximity (Sias & Cahill, 1998).

As a result of the close working proximity the communication between coworkers increased and changed from less personal small talk to increased intimate and more meaningful communication. The increased meaningful

communication changes the relationship and adds to a sense of increased trust in their coworker. As a result of the proximity changing the communication between individuals from superficial to more meaningful and caring, the relationship changes from coworker to friend (Sias & Cahill, 1998).

Since proximity leads to an increase in meaningful communication, trust is developed as well in the friendship (Sias & Cahill, 1998). In adult populations proximity has an influence on the friendships that are developed. For those individuals who live in multiple housing complexes they develop friendships with the other individuals in the complex as a result of the proximity. They interact with one another due to a shared common ground in the complex. In contrast, individuals who live in single family dwellings are able to escape interaction from their neighbors and do not interact as frequently (Johnson, 1989).

Noe (1988) suggests that the reason protégés in an informal mentor program report higher career-related outcomes than those in a formal program is because of the proximity and time spent with the mentor. In an informal mentor relationship, the proximity to the protégé is usually closer than that of a formal mentor program. It

has also been shown that when mentors spend more time with their protégés, the protégés report higher satisfaction with the mentor program (Allen, Russell, & Maetzke, 1997). Chao's (2009) review of past research suggests that providing participants in formal mentor programs opportunities to meet face-to-face can improve the satisfaction with the mentor and the program.

Past research has looked at the career-related and psychosocial outcomes in both informal and formal mentor relationships. This study proposed that a quality formal mentor program will be one where the mentor and protégé are close in proximity and that the time the mentor spends with the protégé will lead to higher career-related and psychosocial outcomes. Likewise the close proximity and the time spent to the mentor will lead to a more intimate relationship between the mentor and protégé resulting in the protégé being more satisfied with the formal mentor program.

Hypothesis

Hypothesis 1: There will be a positive relationship between mentor proximity and psychosocial outcomes.

Hypothesis 2: There will be a positive relationship between mentor proximity and career-related outcomes.

Hypothesis 3: There will be a positive relationship between time spent with mentor and psychosocial outcomes.

Hypothesis 4: There will be a positive relationship between time spent with mentor and career-related outcomes.

Hypothesis 5: Time and Proximity will lead to higher mentor outcomes, which leads to higher satisfaction with mentor experience.

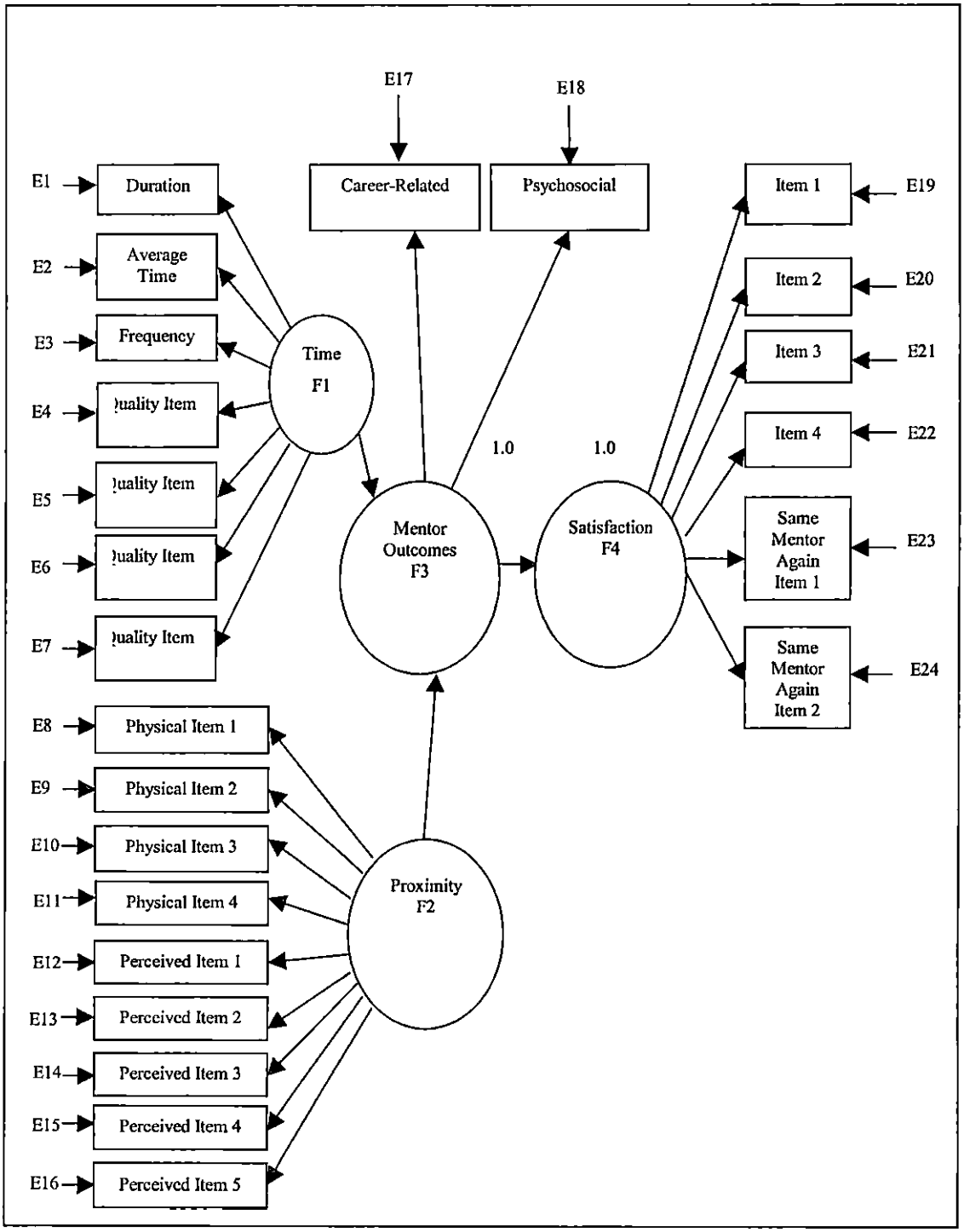

Figure 1. Hypothesized Model

CHAPTER TWO

METHOD

Participants

The target population of this study was individuals in organizations which have been or were currently a protégé in a formal mentor program. The types of organizations that were used were those that had a formal mentor program in place. The organizations that were used in the study are large manufacturing companies throughout the United States that have operations in multiple locations. The smallest company had approximately 3,000 full-time employees and the largest organization had approximately 9,000 full-time employees. In order to have enough power the number of participants were determined by the number of participants needed to run an EQS model. It is suggested that an EQS model needs ten participants per parameter (Tabachnick & Fidell, 2001). The hypotheses have 44 parameters; requiring 440 participants. However, the final model was reduced to a path analysis with 14 parameters; therefore 140 participants are needed. There were 320 surveys sent out. Of the 320 surveys only 188 were returned. Of the 188 returned, 5 had no information provided; therefore, they were not input into the SPSS

dataset. This resulted in only 183 completed surveys being returned. All participants were treated in accordance to the "Ethical Principals of Psychologists and Code of Conduct" (American Psychological Association, 1992).

Procedure

The participants were informed of the general nature of the study and the approximate length of time that they should expect to complete the study. All participants were asked to anonymously fill out a questionnaire containing a survey designed by Noe (1988) that measures the career-related and psychosocial benefits from a mentor program. The questionnaire also contained surveys that measure the physical proximity, perceived proximity, and amount of time spent with the mentor, as well as the protégés' satisfaction with the mentor experience. The total length of the questionnaire was 47 items. At the end of the study, the participants were debriefed about the nature of the study and its implications to the field. Also, the researcher's contact information was given so that the participants could receive additional information pertaining to the study if they wished.

Measures

In this study the participants were given an informed consent form, which stated that the participants were partaking in a research study to investigate aspects of a formal mentor program in the work place and that it had been approved by the Department of Psychology Institutional Review Board Sub-Committee at California State University, San Bernardino (see Appendix A). Participants were also provided a debriefing statement (see Appendix B), and the following scales:

Measure of Career-related and Psychosocial Outcomes

The survey used consisted of a scale developed by Noe (1988) to measure the career-related and psychosocial functions provided by a mentoring relationship. The scale consists of 21 items, with 14 of them (1-14) representing psychosocial functions and seven of them (15-21) representing career-related functions. Each of these items is rated using a 5-point Likert-type scale. For each participant, his or her response to the 14 psychosocial function items were averaged yielding a mean score that could range from 1 (low psychosocial functions/outcomes) to 5 (high psychosocial functions/outcomes) and his or her response to the seven career-related function items were

averaged yielding a mean score that could range from 1 (low career-related functions/outcomes) to 5 (high career-related psychosocial functions/outcomes). There is also a "Don't know" response category, which is considered to be a missing response by Noe (1988).

The participants used the Likert-type scale to respond to the questions that are related to the mentoring relationship (Noe, 1988). Examples of the questions asked are "Mentor has shared history of his/her career with you". This survey has a .89 internal consistency reliability for the items that measure the career-related functions, and .92 internal consistency reliability for the items that measure psychosocial functions. The intercorrelation between the two was only .49, suggesting they are separate dimensions (Noe, 1988). Chao, Walz, and Gardner (1992) also used Noe's scale in their study assessing the differences between informal and formal mentoring. They found the scale to have an internal consistency reliability of .84 for the psychosocial functions, and .79 for the career-related functions. The internal consistency reliability for this study was .90 for the psychosocial functions and .90 for the career-related functions.

Measure of Physical and Perceived Proximity

Scales were created for this project to capture both physical and perceived proximity. Physical proximity was defined as the actual physical distance between the mentor and protégé. Perceived proximity was defined as how the protégé feels about the distance; for example if the physical distance is far, does the protégé still feel close to their mentor? For perceived proximity, the mentor and protégé might be physically far from one another, but the protégé feels close to the mentor. Physical proximity is something that can be measured by distance between the mentor and protégé, whereas perceived proximity is not measurable by distance. The participants responded to four physical proximity questions by marking 1 = "yes" or 2 = "no". For each participant his or her responses to the four items to indicate physical proximity was averaged yielding a mean score that could range from 1 (close physical proximity) to 2 (far physical proximity). These items were reverse coded for the analyses. The participants responded to five perceived proximity questions. Each of these items was rated using a 7-point Likert-type scale. For each participant his or her responses to the five items to indicate perceived proximity was averaged yielding a mean score that could

range from 1 (far perceived proximity) to 7 (close perceived proximity). The internal consistency reliability for this study was .60 for physical proximity. The internal consistency reliability for this study was .78 for perceived proximity.

Measure of Duration of and Quality of Time Spent with Mentor

Scales were created for this project to capture both duration of and quality of time spent with mentor. The participants responded to three duration of time spent with mentor questions. Each of these items was rated using a 7-point Likert-type scale. For each participant his or her responses to the three items to indicate duration of time spent with mentor was averaged yielding a mean score that could range from 1 (low time spent with mentor) to 7 (high time spent with mentor). Examples of the questions asked were "On average, how long are the meetings with your mentor". The participants responded to four quality of time spent with mentor questions. Each of these items was rated using a 7-point Likert-type scale. For each participant his or her responses to the four items to indicate quality of time spent with mentor was averaged yielding a mean score that could range from 1 (low quality of time spent with mentor) to 7 (high quality of time

spent with mentor). Examples of the questions asked are "Time spent with my mentor is used to discuss aspects of my career". The internal consistency reliability for this study was .93 for duration of time spent with mentor. The internal consistency reliability for this study was .83 for quality of time spent with mentor.

Measure of Satisfaction with the Mentor and Willingness to use the Same Mentor Again

Scales were created for this project to capture both satisfaction with the mentor and willingness to be mentored by the same person again. The participants responded to four satisfaction with mentor questions. Each of these items was rated using a 7-point Likert-type scale. For each participant his or her responses to the four items to indicate satisfaction with mentor was averaged yielding a mean score that could range from 1 (low satisfaction with mentor) to 7 (high satisfaction with mentor). Examples of the questions asked are "I am satisfied with my mentor". The participants responded to two willingness to use the same mentor again questions. Each of these items was rated using a 7-point Likert-type scale. For each participant his or her responses to the two items to indicate willingness to use the same mentor again was averaged yielding a mean score that could range

from 1 (low willingness to use the same mentor again) to 7 (high willingness to use the same mentor again). Examples of the questions asked are "If given the opportunity I would choose the same mentor again". The internal consistency reliability for this study was .98 for satisfaction with mentor. The internal consistency reliability for this study was .99 for willingness to use the same mentor again.

The internal consistency reliabilities for the measures in this study were acceptable with the exception of the Physical Proximity scales. Cronbach's Alpha should be .70 or higher to have acceptable reliability. The Physical Proximity scale had a low internal consistency reliability of .60.

CHAPTER THREE

RESULTS

Preliminary Analysis

The responses were initially examined for accuracy of data entry and missing values. All the variables contained values within the expected range and there were no missing data. Items in each of the scales were then examined for internal consistency. Scale items with low item total correlations ($r < .30$) were excluded in the succeeding analysis. Table 1 summarizes the internal consistency in each of the scales and it also reflects the items which were excluded due to low item total correlations. The four items measuring satisfaction with the mentor are very highly correlated with each other ($r = .95$ to 1.0) and were thus reduced to a single score which was derived by computing the mean of the four items. The same procedure was also applied for the two items measuring willingness to use the same mentor which were also highly correlated ($r = .99$).

Table 1. Internal Consistency Reliabilities

Scales	Items	Internal Consistency Reliabilities α
Mentor Outcomes		
Career-related Outcomes	15, 16, 17, 18*, 19, 20,21	.90
Psychosocial Outcomes	1, 2*, 3*, 4, 5, 6*, 7, 8, 9, 10, 11, 12*, 13*, 14*	.90
Time With Mentor		
Duration	1*, 2, 3	.93
Quality	1, 2, 3*, 4	.83
Proximity		
Physical Proximity to Mentor	(single average score)**	.60
Perceived Proximity to Mentor	1, 2*, 3*, 4, 5*	.78
Satisfaction with Mentor	(single average score)**	.98
Willingness to use Same Mentor Again	(single average score)**	.99

* items deleted in the analysis due to low item total ($r < .3$) correlations
** indicated by multiple items in the questionnaire but they were very highly correlated; the items were reduced to a single score represented by the mean of the multiple items

Scale scores based on the initial analysis were then further examined to ensure that the data met SEM data assumptions. Univariate outliers were examined by inspecting the standard scores (using a cut-off point of $z = \pm 3.29$). Multivariate outliers were examined using Mahalanobis distance; no multivariate outliers were found. Normality of the distributions was also examined by considering the univariate skewness and kurtosis. Table 2

reflects the ratio of the skewness and kurtosis statistics with their corresponding standard errors. Using a cut-off point of ±3.29, most of the variables are substantially negatively skewed and are also significantly kurtotic. This shows that the participants responded on the high end of the Psychosocial Outcomes, Physical Proximity, Perceived Proximity, Satisfaction with Mentor, and Willingness to use Same Mentor Again scales. The normalized value of Mardia's Coefficient (52.48) also indicates the presence of multivariate kurtosis. Taken together, these coefficients imply that the assumption of distributional normality of the variables was not addressed. This necessitated the use of the robust statistics function of the EQS.

Table 2. Univariate Skewness and Kurtosis

Scales	Skewness / S.E.	Kurtosis / S.E.
Mentor Outcomes		
Career-related Outcomes	1.08	-3.30
Psychosocial Outcomes	-4.30	-2.78
Time With Mentor		
Duration	-0.50	-2.69
Quality	0.11	-4.11
Proximity to Mentor		
Physical Proximity	-7.80	2.81
Perceived Proximity	-11.20	7.85
Satisfaction with Mentor	-11.65	9.45
Willingness to use Same Mentor Again	-13.45	12.76

The assumptions of linearity and homoscadasticity were examined through an examination of scatter plots of residuals and predicted scores. There was evidence that these assumptions were met. Examination of the correlation matrix (Table 3) however indicated that satisfaction with mentor scores are almost perfectly related (r = .99) to willingness to use the same mentor implying the singularity of both variables. It was therefore decided to drop the willingness indicator and use only the indicator of satisfaction with mentor. This measurement constraint, however, meant that the variable satisfaction with the mentor has only a single manifest indicator. Therefore, a

full latent variable modeling is not possible for the succeeding analyses. The EQS estimation procedure will not converge to a solution with a mixed latent and manifest variable in the model being tested. As an alternative, a path analysis procedure was used which assumes that all the variables in the model are indicated by single manifest indicators.

In the path analysis approach, mentor outcomes which was originally a latent variable was recast in the model as two separate manifest variables (career related and psychosocial mentor outcomes). The same adjustments were also made for the originally latent variable proximity which was broken down into two separate manifest variables (physical and perceived). The time with mentor variable was reduced to a single manifest indicator which was generated by deriving the mean standard scores of "duration" and "quality" scales.

Table 3. Means, Standard Deviations, and Correlations

	Variables	M	SD	1	2	3	4	5	6	7
	Mentor Outcomes									
1	Career-related Outcomes	3.86	.70							
2	Psychosocial Outcomes	3.39	.93	-.26**						
	Time With Mentor									
3	Duration	4.14	2.07	.80**	-.47**					
4	Quality	5.62	.94	-0.06	.01	.28**				
	Proximity to Mentor									
5	Physical Proximity	3.31	.98	.53**	-.37**	.58**	.18*			
6	Perceived Proximity	6.63	.77	.31**	-.01	.11	-.48**	.14		
7	Satisfaction with Mentor	6.44	1.03	.58**	.16*	.52**	-.11	-.16*	.21**	
8	Willingness to use Same Mentor Again	6.16	1.73	.52**	.12	.52**	-.05	-.18*	.13	.99**

*$p < .05$, **$p < .01$

Path Analysis

Path analysis is also an SEM technique. It tests structural models but it uses only observed or manifest variables. With the measurement constraints presented earlier, path analysis is more appropriate for this study. EQS was used to run the analysis. A maximum likelihood (ML) estimation was employed for generating the parameter estimates. Robust statistics incorporated the necessary corrections due to violations of the distributional normality assumption.

To evaluate the data-model fit, a combination of absolute and incremental fit indices was used to evaluate the structural model. Aside from the standard chi-square (χ^2) index of fit, the Root Mean Square Error of Approximation (RMSEA), and the Goodness of Fit Index (GFI) were used as basis for model evaluation. Indications of good fit would be a non-significant χ^2, RMSEA below .08, and GFI of at least .90.

To address the various hypotheses of the study, path analysis for the models in Figures 1 and 2 were conducted. The two models are essentially the same except for the proximity variable. In Model 1, the proximity variable pertains to the "perceived" while in model 2, the proximity variable pertains to the "physical."

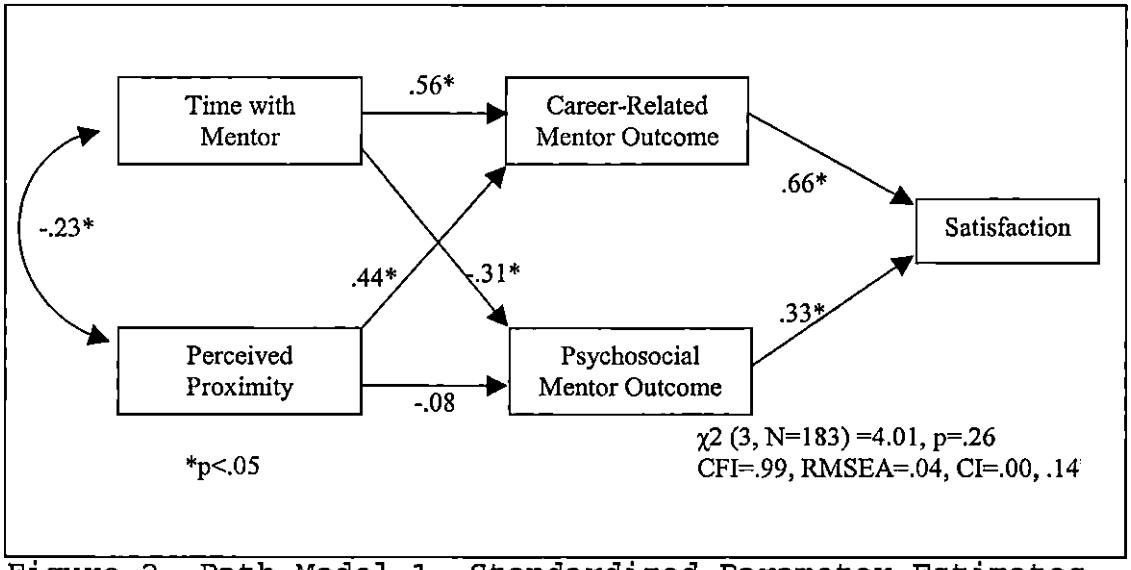

Figure 2. Path Model 1: Standardized Parameter Estimates and Fit Indices

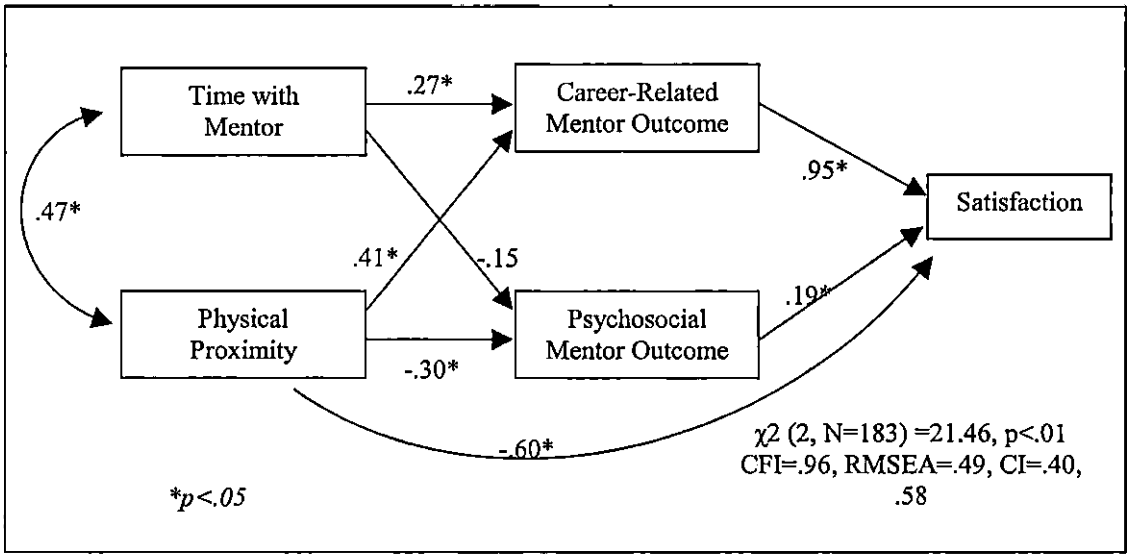

Figure 3. Path Model 2: Standardized Parameter Estimates and Fit Indices

The standardized parameter estimates for different paths are presented in the diagrams. Model 1 had an excellent data-model fit based on all the fit indices considered. As for model 2, the significant χ^2 value is implying unacceptable fit. However, considering all indices, in general the model has an adequate fit with the data. It could be noted further that in Model 2 there is an added path from physical proximity to satisfaction. This path was added based on post-hoc analysis using the Lagrange Multivariate test which suggested the inclusion of this path to improve the data model fit. The change in χ^2 from Path Model 2 before the addition of the path from physical proximity to satisfaction to Path Model 2 with

the additional path is significantly different, supporting the inclusion of this path χ^2 (df = 1) = 60.81, $p < .01$.

Test of Hypotheses

Hypothesis 1 proposed that there will be a positive relationship between mentor proximity and psychosocial outcomes. There was a significant negative correlation between physical proximity and psychosocial outcomes ($\beta = -.30$, $p < .01$) while perceived proximity is not correlated with psychosocial outcomes ($\beta = -.08$). These findings indicate that impact of physical proximity should be distinguished from the perceived proximity impact on mentor psychosocial outcomes. Physical proximity seemed to matter however, with the direction of the relationship run contrary to expectations.

Hypothesis 2 proposed that there will be a positive relationship between mentor proximity and career-related outcomes. The results provided support for this hypothesis. Both perceived and physical proximity had moderate positive correlations with career-related outcomes ($\beta = .44$ and $.41$ respectively, $p < .01$)

Hypothesis 3 proposed that there will be a positive relationship between time spent with mentor and psychosocial outcomes. This hypothesis was not supported

by the findings. Time with the mentor is negatively related to psychosocial outcomes. In the path analysis where perceived proximity was factored in (Model 1), time spent with mentor had a moderate negative correlation with psychosocial outcome ($\beta = -.31$, $p < .05$). In the second model where physical proximity was factored in, time and psychosocial outcomes were not significantly correlated.

Hypothesis 4 proposed that there will be a positive relationship between time spent with mentor and career-related outcomes. Findings provided support for this hypothesis. There was an observed positive moderate correlation between time spent with mentor and career-related outcomes ($\beta = .56$, $p < .05$) in the first model where perceived proximity was factored in. The same pattern was observed in testing the second model were physical proximity factored in although the magnitude of the relationship was less ($\beta = .27$, $p < .05$).

Hypothesis 5 proposed that time and proximity leads to higher mentor outcomes, which leads to higher satisfaction with mentor experience. Results provided qualified partial support for this hypothesis.

If we consider the impact of perceived proximity, the findings support the hypothesis. Time with mentor and perceived proximity had both positive direct effects on

career-related mentor outcome (β = .56 and β = .44 respectively, $p < .05$) which in turn has also a strong positive direct effect on satisfaction with mentor experience.

It should be qualified, however, that the pattern does not hold when we consider psychosocial mentor outcomes. Time with mentor was negatively correlated with psychosocial outcomes. Psychosocial mentor outcome is positively correlated with satisfaction with mentor experience.

Summary of Findings

Overall, most of the hypothesized paths in the models were supported by the findings. Both physical and perceived proximity positively impacts career-related outcomes. However, when we consider the psychosocial mentor outcomes, the impact of proximity is not as expected. In fact, there was even an observed negative correlation between physical proximity and psychosocial mentor outcomes.

As expected, time with mentor is positively related to career-related mentor outcomes. However, when we consider the psychosocial outcomes, a contrary finding was

observed. Time with mentor was negatively correlated with psychosocial outcomes.

Finally, as expected, satisfaction with mentor is positively related with both career and psychosocial outcomes. Furthermore, it was noted that career-related outcomes have stronger impact to satisfaction compared with the impact of psychosocial outcomes.

CHAPTER FOUR

DISCUSSION

Most people are familiar with the concept of mentoring and have had people in their lives that they consider mentors. The purpose of this study was to look at formal mentoring programs at organizations in an attempt to identify what could improve the quality of the mentoring program. For the purpose of this study, a quality formal mentor program is one that time and proximity lead to increased career-related and psychosocial outcomes, which lead to increased protégé satisfaction.

Building upon past research this study investigated to see if there was a relationship between proximity and psychosocial outcomes, proximity and career-related outcomes, time and psychosocial outcomes, time and career related outcomes, and time and proximity related to career-related and psychosocial outcomes and the protégés' satisfaction with the formal mentor program.

The first and third hypotheses were not supported, which proposed a positive relationship between physical proximity and psychosocial outcomes for the protégé; and a positive relationship between time spent with mentor and

psychosocial outcomes. Both were contrary to the hypotheses. Specifically, the further the protégé was from the mentor and the less time spent with the mentor the greater the reported psychosocial outcome was. There was no support for the relationship between perceived proximity and psychosocial outcomes. Allen, Eby, and Lentz (2006) found similar results where proximity did not lead to an increase in career mentoring, psychosocial outcomes, and quality of the mentorship relationship. It would have been beneficial to have gathered information on the protégés to determine how long they had been with their organizations. It is possible that the protégés participating in this study had already adapted to the organizational culture due to their tenure with the organization. It is also possible that the psychosocial outcome had been satisfied by someone other than the mentor as suggested (Chao, Walz, & Gardner, 1992). Formal mentor programs match a mentor and protégé together, whereas an informal mentor relationship is one where two people are not forced into the relationship. In the informal mentor relationship the two people form a mutual friendship where one serves as a mentor to the other.

The second hypothesis was supported, which proposed a positive relationship between proximity and career-related

outcomes. Both physical and perceived proximity were supported. This suggests that if the mentor is close in proximity or that the protégé perceives the proximity to be close there will be an increase in reported career-related outcomes. Noe (1988) suggests that protégés report higher career-related outcomes the closer the proximity between the mentor and protégé becomes. Proximity helps individuals create bonds, increase the intimacy and meaningfulness of communication, and create a more trusting relationship (Sias & Cahill, 1998).

The fourth hypothesis was supported, which proposed a positive relationship between time spent with mentor and career-related outcomes. The more time the protégé spent with the mentor the higher he or she reported the career-related outcomes to be. This is an area where in the past, informal mentor relationships have been more beneficial in providing career-related outcomes. Past research has suggested that in an informal mentor relationship, the mentor spends more time with the protégé (Noe, 1988).

There is partial support for the fifth hypothesis that time and proximity leads to higher mentor outcomes, which leads to higher satisfaction with mentor experience. Overall, time and proximity in a formal mentor program are

related to career-related outcomes, which are related to higher satisfaction with the mentor experience. Protégés who were either physically closer or perceived they were close in proximity to their mentor and spent more time with their mentor reported higher satisfaction with the mentor experience. However, this is contrary for the psychosocial outcomes. While there was support for the relationship between psychosocial outcomes and satisfaction with the mentor experience, there was not support for time and proximity being related to an increase in psychosocial outcomes. As mentioned previously, it is possible that the protégés in this study had already received the psychosocial outcome from someone else in the organization. If the psychosocial outcome has already been met it is possible that participants in this study reported close proximity and spending a lot of time with their mentors, but reported low psychosocial outcomes. This does not suggest that the hypothesis was wrong. Instead, the study should have identified participants that are new to organizations and could still benefit from the psychosocial outcomes in a mentoring relationship.

Limitations

There are several limitations that might have impacted the findings of this study. One limitation to consider is the sample size. This limitation led to the instability of EQS, which resulted in the inability to test all latent variables. The correlational nature of the study does not allow the determination of causal effects. While relationships between the variables were identified, this study does not allow us to demonstrate which variables caused the others.

Another limitation to consider was the demographics of the study. It would have been useful to have added questions to distinguish between gender, race, age, and time with the organization. This study did not differentiate between employees based on their time with the organization. It also did not ask the participants if they were also in an informal mentor relationship at the same time they were in a formal mentor relationship. Employees who have been with the organization for some considerable amount of time may not benefit as much from the psychosocial outcome provided in a mentoring relationship. It is also possible that this was being fulfilled by an informal mentor relationship that they were simultaneously in. Psychosocial outcomes are those

that provide the protégé with social support and help with adapting to the organizational culture (Kram, 1985). If the protégé has been with the organization for some considerable amount of time they might have already fulfilled the psychosocial outcome by someone other than the mentor as suggested by Chao, Walz, and Gardner (1992).

The third limitation to consider is that the current study did not look at how mentors were selected to participate in the formal mentor programs. Further, this study did not look at the mentor's willingness to participate in the formal mentor program and how mentors and protégés were matched. The mentoring relationship could be effected by whether or not the mentor volunteered, was given the opportunity to opt out, and whether or not the mentor received any training on what was expected of them as a mentor. These above mentioned factors could lead to the two factors of distancing/manipulative behavior and poor dyadic fit identified by Eby and Allen (2002), which lead to negative experiences with the mentor-protégé relationship.

The fourth limitation to consider is the survey instrument used to gather information from the participants. The survey used a scale developed by Noe (1988) to measure the career-related and psychosocial

functions provided by a mentoring relationship. The rest of the scales were created by the author and a pilot study was conducted. However, there was singularity between the satisfaction with mentor scale and willingness to use the same mentor again scale, which resulted in the inability to run the full latent variable model.

Implications and Future Research

This study contributes to the research of mentoring by attempting to identify how organizations can create a quality formal mentor program. This study does this by building upon previous research that suggests that time and proximity lead to greater career-related and psychosocial outcomes (Noe, 1988). This study supports that formal mentor programs should be designed to allow mentors and protégés time to spend together and be in close proximity with one another, except for psychosocial outcomes.

There are still many areas of mentoring that need to be researched to determine what should be included in a formal mentor program. Prior to committing resources into the development and running of a formal mentor program it would be beneficial to know the potential returns on investments. One area to look at, is should organizations

develop two formal mentoring programs. One program would be for new hires to aid in the psychosocial outcomes and the second would be for seasoned employees to aid in the career-related outcomes. Godshalk and Sosik (2000), state that formal mentor programs are beneficial in fulfilling the psychosocial outcome because they are not inhibited by the process of finding a mentor. Protégés report that when involved in a formal mentor program they receive more feelings of acceptance and confirmation (Noe, 1988). Psychosocial outcomes should be further explored to determine if the outcome is greater for new hires than for seasoned employees.

A second area of value would be to look at the impact of formal mentoring programs on succession planning and maintaining institutional knowledge. Does having a formal mentor program assist with succession planning and prepare the protégés to take over key roles within an organization? Research in this area could examine knowledge transfer and see if mentoring lead to greater preparedness to take on higher roles within the organization. Prior research by Scandura (1992) and Collins (1994) suggests that the benefits for the protégé in a mentoring relationship include increased salary levels, promotions, and positive performance ratings.

Another area of future research should look to see if the mentoring relationship prepared the protégé to successfully handle new assignments and for the challenges of a higher level position.

Lastly, another area of research should look at the benefits to the mentor. There is limited research in this area. Rotondo and Perrewe (2000) suggest that being a mentor will lead to increased job satisfaction and reduce the intentions of quitting, reduce decreasing behavioral responses, and psychological withdrawal. Future research could also focus on the relationship between successful mentors and the leadership traits that they possess. Wang, Tomlinson, and Noe (2010) suggest that when mentors believe they will receive benefits from participation as a mentor, they are more engaged and invested in the mentoring relationship. Future research could focus on defining the benefits to a mentor. This would provide organizations with support for selecting and training mentors to increase the benefit that organizations and protégés receive from a formal mentor program.

APPENDIX A

INFORMED CONSENT

INFORMED CONSENT

The study in which you are invited to participate in is designed to investigate aspects of a formal mentor program in the work place. It is being assessed through a survey design in which you will be asked to read and answer questions pertaining to mentoring outcomes. This study is being conducted by Brandon Patrick as part of a master's thesis, and it is under the supervision of Dr. Janelle Gilbert, professor of Psychology. This study has been approved by the Department of Psychology Institutional Review Board of California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear somewhere on this consent form. The University requires that you give your consent before participating in a research study.

The survey should take about 20 minutes to complete. Your participation in this survey is anonymous. Please be assured that any information you provide will be held in strict confidence by the researchers. At no time will your name be reported with your responses. Your name will not even be collected. All data will be reported in group form only. At the conclusion of this study, you may receive a report of the results. There are no foreseeable risks to you in participating in this study.

Please understand that your participation in this research is totally voluntary and you are free to withdraw at anytime during this study without penalty, and remove any data at any time during this study. Any questions or inquiries about this research should be directed to Dr. Janelle Gilbert, at (909) 537-5587, Reference Brandon Patrick's Thesis.

By placing a mark in the space provided below, I acknowledge that I have been informed of, and understand, the nature and purpose of this study, and I freely consent to participate. By this mark I further acknowledge that I am at least 18 years of age. Give your consent to participate by making a check or "X" mark here: _____

Today's date is _____.

APPENDIX B

DEBRIEFING STATEMENT

DEBRIEFING STATEMENT

Thank you for participating in this study. The reason for conducting this study was to investigate aspects of a formal mentor program in the work place. If you would like to obtain results of this study or, if you have any questions or concerns about this research, please contact Dr. Janelle Gilbert, (909) 537-5587, reference Brandon Patrick's Thesis. Results will be reported in group form only. Please do not discuss the nature of this study with anyone who may be a potential participant.

APPENDIX C

MENTORING SURVEY

MENTORING SURVEY

General Instructions: The following survey packet contains a variety of questions asking about your attitudes, experiences, and perceptions related to aspects of mentor programs you have been involved with. Your answers are being used to investigate aspects of a formal mentor program in the work place. Please take your time and answer each question openly and honestly. Your participation is anonymous.

Survey # 1: The items in survey # 1 describe characteristics of career-related and psychosocial attributes in a mentor program. Thinking about when you were a protégé in a mentor program, please use the scale listed below to indicate the extent that you experienced each attribute. For each statement, indicate the extent by making the appropriate number.

1	2	3	4	5
Very Slight Extent	Slight Extent	Don't Know	Large Extent	Very Large Extent

1.	Mentor has shared history of his/her career with you.	1	2	3	4	5
2.	Mentor has encouraged you to prepare for advancement.	1	2	3	4	5
3.	Mentor has encouraged me to try new ways of behaving in my job.	1	2	3	4	5
4.	I try to imitate the work behavior of my mentor.	1	2	3	4	5
5.	I agree with my mentor's attitudes and values regarding work.	1	2	3	4	5
6.	I respect and admire my mentor.	1	2	3	4	5
7.	I will try to be like my mentor when I reach a similar position in my career.	1	2	3	4	5
8.	My mentor has demonstrated good listening skills in our conversations.	1	2	3	4	5
9.	My mentor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work conflicts.	1	2	3	4	5
10.	My mentor has shared personal experiences as an alternative perspective to my problems.	1	2	3	4	5
11.	My mentor has encouraged me to talk openly about anxiety and fears that detract from my work.	1	2	3	4	5
12.	My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her.	1	2	3	4	5
13.	My mentor has kept feelings and doubts I shared with him/her in strict confidence.	1	2	3	4	5
14.	My mentor has conveyed feelings of respect for me as an individual.	1	2	3	4	5
15.	Mentor reduced unnecessary risks that could threaten the possibility of receiving a promotion.	1	2	3	4	5
16.	Mentor helped you finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete.	1	2	3	4	5
17.	Mentor helped you meet new colleagues.	1	2	3	4	5
18.	Mentor gave you assignments that increased written and personal contact with upper management.	1	2	3	4	5
19.	Mentor assigned responsibilities to you that have increased your contact with the people in the organization who may judge your potential for future advancement.	1	2	3	4	5
20.	Mentor gave you assignments or tasks in your work that prepares you for a management position.	1	2	3	4	5
21.	Mentor gave you assignments that present opportunities to learn new skills.	1	2	3	4	5

Noe, R. A., (1988). An investigation of the determinants of successful assigned mentoring relationships. Personnel Psychology, 41, 457 479.

Survey # 2: For survey # 2, think about the amount of time that you spend interacting with your mentor. For each statement, indicate the amount of time by marking the appropriate number.

1. On average, how long are the meetings with your mentor?

1	2	3	4	5	6	7
1-10 minutes	11-20 minutes	21-30 minutes	31-40 minutes	41-50 minutes	51-60 minutes	1 hour or more

2. On average, how much time do you spend with your mentor in one week?

1	2	3	4	5	6	7
Less than 1 hour a week	1 hour a week	2 hours a week	3 hours a week	4 hours a week	5 hours a week	More than 5 hours a week

3. How frequently do you meet with your mentor in one month?

1	2	3	4	5	6	7
Less than once a week	Once a week	Twice a week	Three times a week	Four times a week	Five times a week	Six or more times a week

Created by Brandon Keith Patrick

Survey # 3: For survey # 3, think about the topics discussed during time spent with your mentor and indicate your level of agreement or disagreement by marking the appropriate number.

1	2	3	4	5	6	7
Disagree	Somewhat Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Somewhat Agree	Agree

1.	Time spent with my mentor is used to discuss aspects of my career.	1	2	3	4	5	6	7
2.	Time spent with my mentor is focused on helping me in my career.	1	2	3	4	5	6	7
3.	My mentor and I discuss topics that are not job related when we spend time together.	1	2	3	4	5	6	7
4.	My mentor and I discuss my career goals when we spend time together.	1	2	3	4	5	6	7

Created by Brandon Keith Patrick

Survey # 4: For survey # 4, think about the physical distance between you and your mentor and indicate your response by marking the appropriate number.

1 = YES 2 = NO

1.	My mentor's workspace is on the same floor of the building as my workspace.	1	2
2.	My mentor's workspace is on the same side of the building as my workspace.	1	2
3.	I walk past my mentor's workspace in order to get to my workspace.	1	2
4.	My mentor's workspace is near to my workspace.	1	2

Created by Brandon Keith Patrick

Survey # 5: For survey #5, think about the distance between you and your mentor and how you perceive it. For each statement, indicate your level of agreement or disagreement by marking the appropriate number.

1	2	3	4	5	6	7
Disagree	Somewhat Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Somewhat Agree	Agree

1.	The physical distance between my mentor's workspace and mine is short.	1	2	3	4	5	6	7
2.	My mentor and I share a common work area.	1	2	3	4	5	6	7
3.	My mentor's location is close enough for me to go to if I have questions.	1	2	3	4	5	6	7
4.	I feel that the distance between my mentor's workspace and my workspace is short.	1	2	3	4	5	6	7
5.	My mentor's workspace is far from mine.	1	2	3	4	5	6	7

Created by Brandon Keith Patrick

Survey # 6: For survey # 6, think about your satisfaction with your mentor. For each statement indicate your level of agreement or disagreement by marking the appropriate number.

1	2	3	4	5	6	7
Disagree	Somewhat Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Somewhat Agree	Agree

1.	I am satisfied with my mentor.	1	2	3	4	5	6	7
2.	I feel supported by my mentor.	1	2	3	4	5	6	7
3.	I like my mentor.	1	2	3	4	5	6	7
4.	My mentor has been very helpful.	1	2	3	4	5	6	7

Created by Brandon Keith Patrick

Survey # 7: For survey # 7, think about your willingness to use the same mentor again. For each statement, indicate your level of agreement or disagreement by marking the appropriate number.

1	2	3	4	5	6	7
Disagree	Somewhat Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Somewhat Agree	Agree

1.	If given the opportunity I would choose the same mentor again.	1	2	3	4	5	6	7
2.	Other protégés could benefit from my mentor.	1	2	3	4	5	6	7

Created by Brandon Keith Patrick

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