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AN INVESTIGATION OF A SYSTEMATIC MEASURING
TOOL FOR MENTORING CHARACTERISTICS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Masters of Arts
in
Psychology

By
James Edward Daniels


December 1990

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Abstract

This study was a replication of Noe's (1988) study of the development of a systematic mentoring instrument. The study investigated both career and psychosocial benefits of proteges involved in a college mentoring program. An instrument to assess the degree to which a student mentor provided academic/career and psychosocial outcomes to a student protege was developed. Subjects were college students participating in a mentoring program at a California State University campus. The study supported the academic/career and psychosocial functions involved in a mentoring relationship as described by both Kram (1983, 1985) and Noe (1988). Results confirmed the reliability of the items' content. Furthermore, correlations were found between factors suggesting a relationship between psychosocial and career benefits, effectiveness of the mentoring relationship, time a protege spends with the mentor, and the usefulness of the mentoring relationship to the protege. Suggestions for future use and implications of a systematic mentoring scale on future research are discussed.

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Table of Contents

Title Page	i
Signature Page	ii
Abstract	iii
Acknowledgement.....	iv
List of Tables.....	vi
Main Text	
Literature Review	1
Phases of Mentoring.....	2
Career Functions.....	3
Psychosocial Functions.....	3
Peer Mentoring.....	4
Conceptual Framework for Mentoring.....	5
Measurement.....	7
Purpose of Study.....	9
Academic/Career Planning.....	10
Method	12
Results	13
Discussion	23
Appendices	
Pearson Product Moment Correlation Coefficient Factor Analysis Table	31
Letter of Introduction	32
Protege Survey	33
Debriefing.....	40
References.....	41

LIST OF TABLES

Table 1. Mentoring Functions Item Means, Standard Deviations and Rotated Loadings.....16

Table 2. Person Product Moment Correlation Coefficients.....20

Table 3. Percentage of Response to Perceived Mentoring Effectiveness, Time, Academic Success, and Usefulness Scales.....22

Literature Review

The use of a mentor as a teacher, trainer, or guide to a younger, less experienced apprentice has been demonstrated throughout history. Homer's Odysseus speaks of Mentor as a guardian, teacher, and father-like figure to Telemachus, Odysseus's son. The relationship between the older more experienced Mentor and the younger Telemachus, was characterized by fatherly guidance, trust, and love (Cutler, 1988; Gerstein, 1985; Merriam, 1983). Thus, the word "mentoring" has been associated with many types of relationships: father and son, coach and player, trainer and new recruit, or just a friendship between colleagues. But neither mentor nor mentoring have a precise, single meaning or one that all researchers would agree upon (Merriam, 1983). According to Kram (1985), mentoring incorporates a broad range of developmental relationships between juniors, seniors, managers, and peers. Perhaps more importantly, her study interpreted mentoring as facilitating career advancement and psychosocial development. Hunt and Michael (1983) described mentorship as an important training and development tool for upward professional progression within organizations. Krupp (1985) defined mentoring as a "process by which a trusted and experienced supervisor or advisor takes a personal and direct interest in the development and education of a younger or less experienced individual." A review of these proposed definitions

suggests that the meaning of mentoring appears to be defined by the scope of the research or the setting in which mentoring occurs.

A common theme of past research is that it presents mentoring as a developmental process which involves a relationship between a mentor and protege. However, the theme varies depending on the intent of the author. For example, some studies have examined the phases of the mentoring relationship (Kram, 1983, 1985; Woodlands Group, 1980); peer mentoring relationships (Kram and Isabella, 1985); mentoring as a career advancement tool or process (Farren, Gray, and Kaye, 1984; Gerstein, 1985; Hansen, 1977; Hunt and Michael, 1983; Willbur, 1987; Zey, 1984, 1985, 1988); gender and cross gender mentoring relationships and functions (Bush, 1985; Gite, 1988; Farren et al., 1984; Fitt and Newton, 1981; Noe, 1988; Roche, 1979; Zaleznik, 1977); and finally both career and psychosocial aspects of mentoring.

Phases of Mentoring

Representative of the mentoring studies, Kram (1983) examined both the developmental characteristics of mentoring and the phase of the mentoring relationships within the workplace. Her study consisted of interviewing and collecting biographical data on 18 mentoring relationships between older and younger managers in a corporate setting. The developmental characteristics included career functions

and psychosocial functions of mentoring.

Career Functions

Career function are aspects of the mentoring process that enhance the protege as he/she prepares for career advancement. Mentor functions included teaching the ropes of the organization, nominating the protege for both promotions and desirable projects, increasing protege visibility to upper management, sharing ideas, providing feedback, sharing strategies for both work projects and career objectives, informing the protege of risks, organizational dangers, and assignments that might damage the protege's reputation.

Psychosocial Functions

Psychosocial functions would include: promoting the protege's confidence, sense of competence, identity and effectiveness within the organization; counseling (providing an open and safe environment in which to express fears, anxiety, ideas, and problems); offering positive regard, and finally providing informal interaction within the organization (friendship). Kram (1985) also suggested that as more functions are provided by the mentor, the more beneficial the mentoring relationship is to the protege. In addition, four phases of mentoring emerged from the data.

The four phases of mentoring relations, as revealed by Kram (1985), were 1) initiation phase: first 6 to 12 months, the senior manager is admired, respected and a

strong positive fantasy is developed by the protege; 2) cultivation phase: 2 to 5 years, protege tests the expectations of the initiation phase, and both career and psychosocial functions peak; 3) separation phase: 2 to 5 years, young managers experience independence and autonomy, both mentor and protege reassess the relationship, and separation begins both structurally and psychologically; and 4) redefinition phase: friendship, contact informally, and both individuals achieve a peer status.

Peer Mentoring

In a continuing study, Kram and Isabella (1985) studied the effect of peer relationships and their importance in the area of developmental functions. The study was conducted in a manufacturing plant. Biographical data and interviews were collected from 25 mentor and protege pairs. The developmental functions reviewed included both career and psychosocial. In addition, three characteristics of the peer relationship were explored: informational, collegial, and special. Informational and collegial characteristics involved the career functions of the relationship, whereas special characteristics represented the psychosocial function. The informational characteristic depicted sharing information, the collegial characteristic assisted in job related or career strategizing, and the special characteristic meant that the mentor and protege fostered friendship and support. It was found that a variety of peer

mentoring relationships exist and that they have both career and psychosocial functions. Peer mentoring relationships also had positive effects for both the peer and the organization. Nonetheless, peer and conventional mentoring relationships differed both in age and hierarchical status of the mentor and protege. Furthermore, peer mentoring encouraged a two-way exchange of both career and psychosocial functions, while conventional mentoring was traditionally a one way exchange.

Conceptual Framework for Mentoring

A study by Hunt and Michael (1983) reviewed past research in an effort to develop a conceptual framework for mentoring. Their review of mentoring consisted of models, outcomes, context of the relationship, mentoring characteristics of both mentor and protege, and stages of the mentoring relationship. Mentorship models were described as dyadic relationships with a power-dependency status such as teacher/student, master/apprentice, sponsor/token, and mentor/protege relationships. Mentors were viewed as teachers, coaches, guides, bosses, or "Godfathers." In addition, they reviewed the gender dyad of mentors and proteges. Outcomes included both positive and negative effects within the organization and between mentor and protege. Context of the relationship viewed the cultural or type of organization in which the relationship exists.

Mentor and protege characteristics described were primarily physical rather than psychological. Characteristics included age differential, age of mentor, gender, power, and position in the organization. Finally, the mentoring stages consisted of an initiation stage, protege stage, break up stage, and lasting friendship stage.

These stages of the mentoring relationship were similar to and supported Kram's 1983 research model. The study illustrated that mentoring was critical to career success. Mentoring also provided a key to on-the-job training and was utilized as both a training and development tool. Although Kram's studies have been important, relatively little research has been done to explore the nature of a systematic mentoring approach. Most problematic of the mentoring literature was the inconsistency in the attempts to measure the mentoring process.

In an effort to correct this deficiency, Noe (1988) designed an instrument to assess systematically the career and psychosocial functions as described by Kram (1983, 1985). The study was based upon a mentoring program that was designed to promote personal and career skills within the educational field. Each mentor was assigned between one and five proteges who were teachers within the mentor's district or under their supervision. Mentors were upper level management (superintendent and/or district coordinators). Areas examined by separate instruments were

job involvement, locus of control, and career planning.

Areas assessed by Noe's instrument were relationship importance, quality of interaction, gender composition, and mentoring function. Results of the study were inconclusive with only one hypothesis receiving support: "the more time the protege spends with the mentor and the more effectively the protege utilizes the mentor, the greater the career and psychosocial outcome the protege will obtain from the relationship" (Noe, 1988).

A factor analysis on Noe's data supported Kram's (1983, 1985) findings for the existence of both career and psychosocial functions. This was one of the first studies to investigate the antecedents and consequences of assigned mentoring relationships. More important, however, was the attempt to devise a systematic measuring tool for mentoring characteristics.

Measurement

A review of the mentoring literature suggests little consistency in measurement of mentoring characteristics. Some of the inconsistency is probably related to the fact that mentoring is a process and is difficult to assess. The primary method to the measurement of mentoring has been the interview and questionnaires.

For example, Kram (1983) considered her research, in measuring the mentor/protege relationship, as exploratory in nature, and thus a small sample size was used. Her study

included interviews with 18 pairs of managers. Interviews consisted of two two-hour sessions. The first interview session was with the younger managers, to review their career history and explore past mentoring relationships. In the second interview session, details of about one or two of the mentoring relationships were explored. Both tasks were accomplished by reconstructing important events in the mentoring relationships. The first interview session with the senior manager was similar to the first interview session with the younger manager. However, the second interview focused on the specific career history of the senior manager and the influence the mentoring relationship or past relationships had on the manager's career. Analysis was done by an inductive process in which possible hypotheses were suggested and revised throughout the interview process. As the number of interviews increased, specific themes, categories, and relationships emerged from the data. Thus, recurring patterns in the data became the basis for the conceptual model. Moreover, the inductive process moved the data between concepts and categories until the time when sufficient characteristics or categories could be defined. This method was described as "constant comparative method of analysis" (Glasser and Strauss, 1967). In Kram and Isabella (1985), the same interview format and analysis was utilized.

In contrast to Kram's measuring method, Noe (1988) as

previously note, attempted to examine the protege characteristics of the mentoring relationship with a survey device. The instrument contained 32-items which were developed on the basis of the career and psychosocial functions previously identified by both qualitative and descriptive analyses (e.g. Burk, 1984; Kram 1983, 1985; Kram & Isabella, 1985; Roche, 1979; Zey, 1984). Noe's (1988) study demonstrated that the instrument (questionnaire) devised for the study provided evidence for both psychosocial and career functions, as illustrated by both the reliability and factor analysis.

Purpose of Study

Because the use of mentoring programs in both organizational and academic settings is increasing, it is important to determine the psychosocial and career functions that occur in a mentoring relationship. No further research had been done to test Noe's systematic instruments on mentoring functions.

Thus, the purpose of this study was to investigate further the instrument devised by Noe (1988) by replicating the measure with a different population. The original study used educators as participants; the present study will utilize college students. Although an organizational setting is different than an academic setting, the nature of career and psychosocial functions should remain the same in both settings. These two functions are explained in detail

next.

Academic/Career Planning

Career functions, or the extent to which an individual engages in career planning has, in the past, been shown to be related to salary level, advancement, promotion, and self development activities. Furthermore, individuals who career plan have better self awareness of strengths, weakness, and interests. Kram (1983) suggests that mentors give considerable amount of time to discussions that are related to career planning activities. Similar benefits are expected academically for college proteges as they plan for advancement and self development. Thus, consistent with Noe's hypothesis:

Hypothesis 1: The greater the extent to which the mentor and protege do academic planning, the more effectively the protege utilizes the mentor. The more academic planning, the more academic/career benefits the protege will obtain from the relationship.

In this study, academic/career functions will be defined as academic advisement of registering for classes, advisement of professors, strategies for projects, term papers and reports. Career planning would be assisting the protege in possible choices of a career or graduate program.

Quality of Interaction and Amount of time Spent with Mentor

Interaction is the key to obtaining career and psychosocial benefits. Thus, personal and work related

problems and goals must be discussed. The protege must also attain guidance on career and personal issues (Kram, 1985). Moreover, for the protege to attain the full benefit of the mentoring relationship, he or she must effectively utilize time spent discussing, asking questions, and problem solving with the mentor. Therefore, remaining consistent with Noe's hypothesis:

Hypothesis 2: "The more time the protege spends with the mentor, the greater the psychosocial outcomes the protege will obtain from the relationship."

Method

Background Information

The mentoring program utilized by the study is part of a comprehensive development program designed to assist retention of college students on California State University campuses. Student mentors and student proteges were assigned according to their majors. Student mentors had between three and five student proteges. In addition, there was a faculty coordinator for each major. Faculty coordinators within each major supervised all student mentors in that major. The relationship between faculty coordinators and student mentors was not measured. All mentors and proteges were students. Each participant received one day of training at the beginning of the school year.

Subjects

The subjects were 63 students from a college on the west coast who chose to volunteer. Student proteges were part of an on-campus Mentoring Program. Approximately 200 college protege students were asked to volunteer. All subjects were treated in accordance with the American Psychological Association's ethical guidelines.

Measurement

Mentoring functions were assessed with a 29-item survey that was adapted from Noe's (1988) questionnaire. The questionnaire was developed by Noe (1988) to assess the

extent to which proteges believed their mentors provided career and psychosocial functions. Noe's items were based on previous studies of mentoring relationships (Burk, 1984; Kram, 1983; Kram & Isabella, 1985; Roche, 1972; Zey, 1984). A five point Likert scale was utilized with 1 = "to a very slight extent" to 5 = "to a very large extent." An "unknown" response was provided; this response was treated as a missing response in analyses. Proteges were asked to respond to each item and to report the extent to which it described their current mentoring relationship.

Procedure

Subjects/proteges (n=253) from one campus were requested to complete a questionnaire which was sent to them by mail. A brief introduction sheet was sent to all subjects along with the questionnaire. A separate sheet was provided if any subject wanted more information or the results of the study. Subjects were instructed to rate the extent to which they believed the mentor provided career and psychosocial functions. All students were informed that participation was voluntary and that they could attain the results of the study by mail once the study was completed.

Results

Tests of the Hypotheses

Hypotheses one and two were supported by the data. The current study replicated Noe's analyses and attained similar results to Noe's 1988 study.

Hypothesis 1. There was a high correlation between the time and career functions subscale ($r = .49$), indicating the extent of mentor-protégé time spent on discussing academic/career issues. In addition, the more time the protégé spent with the mentor, the more effectively the protégé utilized the mentor. This is displayed by the high correlations between "usefulness" and "time" ($r = .41$) and "career" and "usefulness" ($r = .63$). The data confirms the first hypothesis.

Hypothesis 2. Similarly, time was significantly related to the psychosocial functions subscale ($r = .48$). Thus, the second hypothesis was support.

Other Analyses

A reliability analysis was performed on the data to determine internal consistency. A factor analysis was also performed to remove duplicate variables from those that were correlated and to form factors that were relatively independent of one another.

Reliability Analysis. A reliability analysis was performed on the data to determine the internal consistency and the homogeneity of the two subscales of the mentoring scale developed by Noe. Internal consistency for the career function subscale, which included 17 items, was .89 (Cronbach's alpha). Similar results were found for the psychosocial functions subscale, which included 12 items; alpha was .84. These results for both career and

psychosocial subscales were similar to Noe's (1988) results.

Factor Analysis. A principal axis factor analysis, forcing two factors followed by a varimax rotation, was performed on the 29 items of the mentoring scale. Contrary to Noe's study, no items failed to load and so none were deleted from the factor analysis.

Factor one appeared to represent career functions as seen in Table 1. Examination of factor two suggested that item loadings on this factor relate to psychosocial functions.

Further examination of the items loading on the first factor suggests helpfulness of the mentor whereas, factor two appeared to suggest emotional support from the mentor. Although both functions derived from Noe's study were represented, the eigenvalues indicated that the two factors explained only 47 percent of the variance within the mentoring items. In contrast to Noe's study where the mentoring items explained 82 percent of the variance. Also, several items loaded on both factors. These items appeared to contain elements of both concepts, career/helpfulness and social/emotional support.

Pearson Product Moment Correlation Coefficients

Pearson Product Moment Correlation Coefficients were used to investigate additional relationships between variables. In line with Noe's study, there was a high

Table 1
Mentoring Functions Item Means, Standard Deviations and Rotated Loadings

Item	<u>factor loadings</u>			
	M	SD	1	2
20. My mentor gave suggestions in preparing for a future career. (career)	2.20	1.16	<u>.81</u>	.10
19. My mentor gave suggestions that would clarify career possibilities in the future. (career)	3.11	1.10	<u>.74</u>	.18
7. I will try to be like my mentor when I encounter similar academic situations or problems. (career)	3.49	1.07	<u>.64</u>	.29
4. I try to imitate the college behavior of my mentor. (career)	2.63	1.03	<u>.63</u>	.13
17. My mentor helped me meet new people or friends. (career)	3.20	1.28	<u>.63</u>	.31
18. My mentor gave suggestions that would clarify written and personal contact with professors. (career)	3.38	1.08	<u>.60</u>	.36
3. My mentor has encouraged me to try new ways of behaving in college. (career)	3.04	1.23	<u>.57</u>	.23
*27. My mentor has asked me for suggestions concerning problems he/she has encountered in college. (social)	2.87	1.33	<u>.56</u>	.27
15. My mentor warned me of academic risks, such as specific classes or professors, that could threaten me academically. (career)	3.81	1.16	<u>.53</u>	.24
5. I agree with mentor's attitude and values regarding education. (career)	3.76	1.05	<u>.50</u>	.17

Note: Item Loadings defining factors are underlined. The type of mentoring function that the item was written to assess is listed in parentheses. Item response scale ranged from 1 = " to a very slight extent to 5 = " to a very large extent".

* Items which did not load as Noe's factor analysis.

Item	factor loadings			
	M	SD	1	2
12. My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her. (social)	3.85	.99	.21	<u>.74</u>
14. My mentor has conveyed feelings of respect for me as an individual. (social)	4.11	.78	.09	<u>.74</u>
#22. My mentor provided me with support and feedback about my performance as a college student. (career)	3.54	1.09	.25	<u>.71</u>
25. My mentor suggested specific strategies for tests, term papers and projects. (career)	3.14	1.13	.35	<u>.69</u>
#26. My mentor provided me with support and feedback regarding performance on projects, reports, and tests. (career)	3.60	1.05	.39	<u>.66</u>
10. My mentor has shared personal experiences as an alternative perspective to my problems. (social)	3.74	.86	.21	<u>.60</u>
#21. My mentor provided opportunities to learn new skills. (career)	3.19	1.14	.37	<u>.59</u>
8. My mentor has demonstrated good listening skills in our conversations. (Social)	4.31	.75	.07	<u>.58</u>
11. My mentor has encouraged me to talk openly about anxiety and fears that detract from my studies. (social)	3.60	1.15	.34	<u>.56</u>
13. My mentor has kept feelings and doubts I share with him/her in strict confidence. (social)	4.11	.93	.31	<u>.54</u>

Note: Item loadings defining factors are underlined. The type of mentoring function that the item was written to assess is listed in parentheses. Item response scale ranged from 1 = "to a very slight extent" to 5 = "to a very large extent".

Items which did not load as Noe's factor analysis.

Item	factor loadings			
	M	SD	1	2
9. My mentor has discussed my questions or concerns regarding feelings of competence, commitment to my degree, relationship with peers and professors or college/family conflicts. (social)	4.15	.82	.28	<u>.51</u>
29. My mentor has interacted with me socially outside of school. (social)	2.61	1.47	.25	<u>.42</u>
1. My mentor has shared history of their college career with me. (career)	3.39	1.11	.43	.42
2. My mentor has encouraged me to prepare for academic and career advancement. (career)	3.07	1.26	.57	.42
6. I respect and admire my mentor. (social)	3.71	1.02	.56	.42
16. My mentor helped me finish assignments, tasks or meet deadlines that otherwise would have been difficult to complete. (career)	2.66	1.30	.40	.34
23. My mentor suggested specific strategies for accomplishing academic goals. (career)	3.73	1.01	.54	.54
24. My mentor shared ideas with me. (career)	3.87	1.07	.53	.59
28. My mentor has invited me to join him/her for lunch or other social activity. (social)	3.60	1.39	.32	.31
Eigenvalue	11.74	2.03		
Variance explained	40.5	7.0		

Note: Item loadings defining factors are underlined. The type of mentoring function that the item was written to assess is listed in parentheses. Item response scale ranged from 1 = "to a very slight extent" to 5 = "to a very large extent".

Items which did not load as Noe's factor analysis.

correlation between the psychosocial and career functions subscale ($r = .85$). (See Table 2.)

Subscales. The subscales of the psychosocial and career as developed by Noe were used for these analysis. (Because the factor analysis suggested a slightly different alignment of items than was found in Noe's study, subscales based on the factor analysis were also computed and correlated with the "How effective did you feel your use of the mentor was?"; "How much time per week did you and your mentor spend together?"; "Has contact with your mentor improved your potential for academic success?"; and "How useful did you find your contact with your mentor to be?" variables. These data are presented in the appendix. These data do not differ substantially from those presented in Table 2.)

Usefulness. The perceived usefulness of the mentor by the protege was significantly correlated with both subscales, career and psychosocial. This would suggest that proteges interpreted career and social benefits as a useful part of the mentoring relationship. And lastly, proteges' perceived usefulness of the mentor to them was correlated significantly to psychosocial functions subscale ($r = .53$). These results were expected and are consistent with Noe's(1988) and Kram's (1983, 1985) studies.

TABLE 2

Pearson Product Moment Correlation Coefficients

Variables	M	SD	Effect	Psocial	Career	Time	Acadsuc	Useful
Effect	3.67	1.12	1.00					
Psocial	3.68	.47	.65**	1.00				
Career	3.39	.28	.65**	.85**	1.00			
Time	2.60	1.15	.51**	.48**	.49**	1.00		
Acadsuc	1.69	.89	-.17	-.12	-.23	.03	1.00	
Useful	2.57	.75	.70**	.53**	.63**	.41**	-.23	1.00

Effect = "How effective did you feel your use of your mentor was?"

Psocial = Psychosocial functions of mentoring

Career = Career functions of mentoring

Time = "How much time did you and your mentor spent together?"

Acadsuc = "Has contact with your mentor improved your potential for academic success?"

Useful = "How useful did you find your contact with your mentor to be?"

* p < .01

** p < .001

Note: Psocial and Career were computed based on the subscales in Noe's study.

Effectiveness. Proteges' ratings of their mentor's effectiveness to them, "How effective did you feel your use of your mentor was?" was significantly related to the following: psychosocial subscale, career subscale, time spent with the mentor, and perceived usefulness of the mentor. Proteges reported high levels of effectiveness ("How effective did you feel your mentor was?" Mn = 3.98, SD = 1.99) and usefulness of the mentor ("How useful did you find your contact with your mentor to be?" Mn = 2.57, SD = 1.60). Proteges varied in their time spent with mentor. (See Table 3.) Yet, over half of the proteges reported a "yes" response to the question of "Has your contact with your mentor improved your academic success?"

A final question was asked on the survey to identify specific areas in which the mentor offered the greatest assistance to the protege. The proteges responded to "What areas did your mentor offer the greatest assistance, please number from greatest = 1; to the least = 4". 32 students placed academic as the area of greatest assistance; 13 students placed personal as the greatest area of assistance followed by 8 who marked social and 7 who marked career. It appears that students saw academic assistance as very different from career planning as well as personal assistance being very different from social assistance.

Table 3
Percentages of Response to Perceived Mentoring
Effectiveness, Time, Academic Success and Usefulness scales

Item	Percent of Responses				
	1	2	3	4	5
30. How effective did you feel your use of your mentor was?	4.8	11.1	22.2	36.5	25.4
31. How much time per week did you and your mentor spend together?	23.8	22.2	23.8	30.2	
32. Has contact with your mentor improved your potential for academic success?	57.1	17.5	25.4		
33. How useful did you find your contact with your mentor to be?	15.9	11.1	73.0		

Note:

Item 30 (Effect); 1 = "to a very slight extent" and 5 = "to a very large extent".

Item 31 (Time); 1 = 0-30 min.; 2 = 30-45 min.; 3 = 45-1 hour; 4 = 1 hour +.

Item 32 (Acadsuc) = 1 = yes; 2 = no; 3 = unknown.

Item 33 (Useful); 1 = "not very useful"; 2 = "unknown" 3 = "very useful".

Discussion

The current study was a replication of Noe's (1988) instrument where functions of the mentoring relationship were assessed. The current study adapted the mentoring subscales developed by Noe to college students who were involved in a mentoring program. Both career and psychosocial functions were assessed by the new instrument. Results were similar to both Noe's (1988) and Kram's (1985) studies on mentoring relationships. The current study supported the first hypothesis that the greater the extent to which the mentor and protege did academic planning, the more effectively the protege rated use of the mentor. The second hypothesis was supported in that as the mentor and protege spent more time together, psychosocial benefits were perceived to increase. The factor analysis suggested that both career and psychosocial functions do exist, which strengthens support for both Kram's (1983) and Noe's (1988) conceptualization of mentoring functions.

Career Functions of Mentoring

The subscale for academic/career functions revealed high internal consistency and reliability. These results suggested that the scale could be further developed and adapted for use by other researchers concerned with criterion based measures of mentoring functions. However, the factor analysis suggested that the career functions may not be especially distinct from the psychosocial functions

for the student sample.

The results further supported Noe's scale on career functions, in that it demonstrated the reliability of the instrument with a college population. However, a small number of items appeared to be unclear to the students. This may be due to the way items were transformed from an organizational setting to an academic or college setting. It is speculated that career functions, as described by Kram (1983, 1985) and Noe (1988), may not be as clearly defined in an academic setting as they are in an organizational setting. Whereas the employee in an organizational setting may be more aware of the importance of visibility and the importance of sponsorship and protection by the mentor, a student may not view a mentor in the same way. More specifically, the employee may know where they want to be within the organization in relation to position or status, how to get promoted or gain status, and understand the importance of the informal organization. Student proteges may not have a clear and defined picture of themselves and how their current educational goals may relate to career goals. Student proteges only see themselves as students and not as career oriented individuals. In addition, student mentors may not have the power to protect, give visibility, and provide promotional opportunities in academia as in business. Hence, the connection between career functions may not be as clear in an academic mentoring program as they

are in an organizational setting.

Psychosocial Functions of Mentoring

Similar results with the psychosocial function were observed. Results demonstrated high internal consistency and reliability. These results suggested that this subscale, too, could be further developed, adapted, and utilized by other researchers. The results further supported both Kram's (1983) and Noe's (1988) mentoring research.

Again, the factor analysis suggested that some items may have been unclear in the survey. These unclear items may be due to the mentor-protege relationship not having progressed through the different phases of mentoring as described by Kram (1983, 1985) and Kram and Isabella (1985). Consequently, mentor-protege relationships may not have moved beyond the initiation phase; psychosocial functions peak in the second phase, the cultivation phase. Hence, the stage at which these students were functioning may have affected the final results. The students may not have had a clear definition of psychosocial functions of the mentoring relationship at the time of the survey.

Other Issues

Additionally, student proteges may not have a clear perspective of their identity as individuals. Kram (1983, 1985) suggested that psychosocial functions include confidence, sense of competence, identity and effectiveness

within the environment (organization or school). But students may not have developed confidence, a sense of competence, nor an understanding of their own identity within the college environment. As a result, student proteges may have a lower maturation level than those previously surveyed by Noe in his study (Kram 1985, 1983; Noe 1988).

The factor analysis suggested that students may have had differing feelings about the career and the psychosocial interaction with a mentor. For example, one student reported that his mentor was a "nerd", but related that he was very competent and helpful in the academic subject matter pertaining to the major. Consequently, career benefits were obtained but no psychosocial benefits were attained from the relationship. Another student reported that his mentor was a nice person but knew nothing about academic advising in the major. These reaction may have be due to the proteges' maturity levels which may not have allowed them to appreciate people who are different from themselves.

Future Directions

The current study attempted to replicate each item of Noe's instrument as closely as possible. For future research, some of the items should be rewritten to match in language common to college or academic environment. If the items were written more clearly and concisely, items may

load more definitively on the factor analysis. It is further suggested that more specific directions be provided to the proteges prior to the taking of the survey. That is, it may be helpful if proteges had an understanding of the two major functions, career and psychosocial. Assisting the proteges to understand both career and psychosocial mentoring functions would probably lessen the number of "neutral" responses.

An additional suggested area of research is that of mentoring relationship stereotypes. As suggested by Merriam (1983), mentoring has been associated with many types of relationships. Both proteges and mentors bring to the relationship many different preconceived ideas and concepts of the role each should play in the relationship (Grey 1989). Problems arise when these expectations of the mentoring relationship are not met by either mentor or protege. For example, the protege may have been expecting a coaching type (player and coach) mentoring relationship, but received a mentor who uses a counseling type (father and son) relationship approach. Thus, the mentoring relationship could be perceived by the protege as ineffective and the mentor could perceive the protege as a rebellious offspring who doesn't care about the relationship. It is possible that the protege does not understand the long term effects of a mentoring relationship and only sees the immediate results. It is also possible

that both mentor and protege have "stereotypical" images of what a mentor or protege should be. When the "stereotypical" images are more similar in nature, the relationship is more likely to be perceived as successful. On the other hand, when mentor and protege "stereotypical" images are different, the relationship is likely to be perceived as unsuccessful. It is suggested that additional research to address the issue of mentoring expectations. A stereotypical mentor subscale could be developed to validate expectations of both protege and mentors, thus establishing a way of matching mentors and protege relationships more effectively and accurately.

An additional area for mentoring research and practice is a mentoring program for returning students, who are often older and more mature than traditional (18 - 22 years old) students. This population may have needs academically, but they may have a greater appreciation for long term benefits and demand more of a mentoring relationship in both the areas of career and psychosocial functions, than would a traditional undergraduate student.

In the item, "What areas did your mentor offer the greatest assistance", proteges reported that academic/career assistance was the most helpful in the mentoring relationship. Frequency analysis revealed that academic and career assistance received more "1s" and "2s", than did personal and social. This was expected because of the

academic environment and was in line with Kram's (1985) results. Kram (1985) noted that career functions were primarily instrumental in nature and are characterized by less personal or social interaction. Perhaps students see that instrumentality to achieve good grades and a high G.P.A is more important than to make friends and socialize. This response is supported by Hunt and Michael (1983) who described the mentoring relationship as an important training and development tool. A future study should include specific aspects that a college mentoring relationship should include, i.e., study skills, test taking strategies or academic strategies.

In conclusion, it is proposed for future studies that the current scales be revised and re-administered to college proteges and mentors. A systematic measuring instrument in conjunction with a mentor-protege expectation scale could be very useful in matching and measuring the effectiveness of mentoring programs. Moreover, a criterion-based scale which could be adapted to different populations could benefit both educational and employee development programs where assigned mentoring programs exist.

A P P E N D I C E S

Pearson Product Moment Correlation Coefficient
Factor Analysis Table

Variables	Effect	Psocial	Career	Time	Acadsuc	Useful
Effect	1.00					
Psocial	.63**	1.00				
Career	.59**	.65**	1.00			
Time	.50**	.40**	.42	1.00		
Acadsuc	-.16	-.11	-1.3*	-.07	1.00	
Useful	.70**	.54**	.57**	.39**	-.21	1.00

Effect = "How effective did you feel your use of the mentor was?"; Psocial = Psychosocial functions; Career = Career functions; Time = "How much time did you spend with your mentor?"; Acadsuc = "Has the contact with your mentor improved your potential for academic success?"; Useful = "How useful did you find your contact with the mentor?".

* P < .01
** P < .001

Letter of Introduction

Dear Student,

My name is Jim Daniels, I am a graduate student in psychology. My current research requires subjects that have been part of a mentoring program. Your name was given to me by Joel Nossoff in connection with the student mentoring program.

Participation in this survey is voluntary. If you do not want to participate, do not return the survey.

On the other hand, please consider that your participation is essential to understanding the mentoring process and your participation would greatly be appreciated.

The survey enclosed is an adaptation of another researcher's mentoring function survey. The instrument is designed to measure your assessment of how your mentoring experience was.

Please fill out the survey completely and if you have any questions please call me at (714) 882-8183.

If you would like copies of the results of the study please give your name and address to Joel Nossoff and I will be glad to mail you the results when the study is completed.

Thank you for your help and time.

Sincerely,

Jim Daniels

PROTEGE SURVEY

Please indicate the amount or extent in which the student mentor has provided you (protege) with these items.

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

1. My mentor has shared history of their college career with me.

1 2 3 4 5

2. My mentor has encouraged me to prepare for academic and career advancement. (i.e. upper division course work, Masters or Ph.D.)

1 2 3 4 5

3. My mentor has encouraged me to try new ways of behaving in college.

1 2 3 4 5

4. I try to imitate the college behavior of my mentor.

1 2 3 4 5

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

5. I agree with my mentor's attitude and values regarding education.

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 encounter similar academic situations or problems.

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 my degree, relationship with peers and professors or college/family conflicts.

1 2 3 4 5

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

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 studies.

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

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

15. My mentor warned me of academic risks, such as specific classes or professors, that could threaten me academically.

1 2 3 4 5

16. My mentor helped me finished assignments, tasks or meet deadlines that otherwise would have been difficult to complete.

1 2 3 4 5

17. My mentor helped me meet new people or friends.

1 2 3 4 5

18. My mentor gave suggestions that would clarify written and personal contact with professors.

1 2 3 4 5

19. My mentor gave suggestions that would clarify career possibilities in the future.

1 2 3 4 5

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

20. My mentor gave suggestions in preparing for a future career.

1 2 3 4 5

21. My mentor provided opportunities to learn new skills.

1 2 3 4 5

22. My mentor provided me with support and feedback about my performance as a college student.

1 2 3 4 5

23. My mentor suggested specific strategies for accomplishing academic goals.

1 2 3 4 5

24. My mentor shared ideas with me.

1 2 3 4 5

25. My mentor suggested specific strategies for tests, term papers, and projects.

1 2 3 4 5

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

26. My mentor provided me with support and feedback regarding performance on projects, reports, and tests.

1 2 3 4 5

27. My mentor has invited me to join him/her for lunch or other social activity.

1 2 3 4 5

28. My mentor has asked me for suggestions concerning problems he/she has encountered in college.

1 2 3 4 5

29. My mentor has interacted with me socially outside of school.

1 2 3 4 5

30. How effective did you feel your use of your mentor was?

1 2 3 4 5

31. How much time per week did you and your mentor spend together?

0-30 min. ___ 30-45 min. ___ 45-1 hour ___ 1 hour + ___

1 = "to a very slight extent"; 2 = "to a slight extent"; 3 = "neutral"; 4 = "to a large extent"; 5 = "to a very large extent"

32. Has contact with your mentor improved your potential for academic success?

Yes___ No___ unknown___

33. How useful did you find your contact with your mentor to be?

not very useful___ unknown___ very useful___

34. What areas did your mentor offer the greatest assistance please number from the greatest = 1; to the least =4

Academic___ Career___ Personal___ Social___

Comments:

Debriefing:

More Details About The Survey

Research has seen mentoring as a developmental process with many functions. The survey was designed to assess two of the many mentoring functions: Career Functions and Psychosocial Functions. It was the intent of this study to know if these functions exist in a college mentoring program.

Career Functions are aspects of the mentoring process that enhances the proteges as he or she prepares for career advancement or in this case academic advancement or perhaps pre-career advancement. Functions include: teaching about school policy, procedures or college life; coaching or strategizing about homework, projects, papers, classes and professors; advising of courses, job opportunities, and career prospects.

Psychosocial Functions are aspect of the mentoring process that enhance the protege's personal life. Functions could include: introductions to friends and professors; providing both positive and negative feedback; assistance on projects; counseling and encouragement; sharing of ideas; friendship. The psychosocial functions could be seen as the development of a friendship between mentor and protege.

Thank you again for your participation.

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