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AUTHOR   Tolentino, Barbara Wang
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ABSTRACT
                Informal mentoring has always served as a means of fostering
development and growth of the younger members of our society. Mentoring
programs take on many forms. Some target youth development, while others
foster development within professions, such as the mentoring of new teachers.
Prior research on influential factors in mentoring outcomes focused on mentee
and/or mentor attitudes, which might be found to affect mentoring success.
This study seeks to broaden the range of factors considered in analysis of
mentoring relationships, and to evaluate both programmatic and individual
influences on the nature of mentoring outcomes. It uses three measures of
mentoring success: psycho-social support received, career support received,
and personal evaluation. Two conclusions can be drawn from the study: (1)
analysis of structural and personal variables allowed for more comprehensive
description of mentoring relationships, as situated in a formalized context;
and (2) although the sample population was drawn from a single mentoring
program, the program was structured such that variations were present along
variables of interest, allowing comparative analysis to be conducted
successfully. Several recommendations for mentoring program design are
included. Appendix A is "Correlation Matrix" and Appendix B is "Mentoring
Experiences Questionnaire." (Contains 1 figure; 7 tables; and 18 references.)
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Factors in Successful Mentoring Relationships

Barbara Wang Tolentino

Stanford University School of Education

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Introduction

Mentoring, in its simplest sense, is helping someone else to learn something which they would otherwise have learned less well, more slowly, or not at all (Bell, 1996). The word "mentor" comes from Homer's The Odyssey, in which trusted family friend, Mentor, serves as tutor to the crown prince Telemachus, while the prince's father, King Odysseus, fights in the Trojan War. Mentor exhibits both wisdom and sensitivity as he guides and coaches young Telemachus in his newly assumed role of king.

In their interaction we see key aspects of the mentor/mentee dynamic which make mentoring unique within the general domain of teacher/student relationships. Mentors make a personal commitment to work one-on-one with their protégé in the cultivation of new knowledge, understandings, and/or skills. Mentees learn both by word and by the example of their mentor. Moreover, developing a supportive, trusting relationship between the mentor and protégé becomes as valuable an outcome as any specific skills learned as a result of the relationship.

Informal mentoring has always served as a means of fostering the development and growth of the younger members of a society, of imparting life lessons from one generation to a succeeding one. The practice of apprenticeship formalized mentoring of junior members within a trade. Today, mentoring programs take on many forms. Some target youth development, such as Big Brother/Big Sister programs and school-industry partnerships which pair students with working professionals. Others promote development within professions, e.g. the mentoring of a new teachers by more experienced ones.

Many large corporations have formalized efforts to enhance employee development through mentorship programs. Some companies like Hewlett-Packard, IBM, Lotus, and Microsoft have programs targeting specific corporate objectives, e.g. boosting diversity in managerial and technical ranks (Flynn, 1993). Other mentoring programs provide a general purpose vehicle for developing or enhancing a particular skill or set of skills. This study focuses on mentoring in the general context of corporations. However, it is hoped that the findings of this study may shed additional light on potential factors in mentoring success in the broader range of mentoring contexts as well.

Preliminary informal discussions were conducted with managers prior to this research. They reported an inconsistent set of outcomes from the implementation of mentorship programs

in their respective settings. While some mentees report high satisfaction when evaluating their mentoring experiences, others describe them as mediocre or ineffective. Further, their companies did not really investigate the causes of these observed inconsistencies and therefore were not reaping full benefit from optimized mentoring practices.

Analyzing Variations in Mentoring Experiences

Prior research on influential factors in mentoring outcomes focused on mentee (protégé) and/or mentor attributes which might be found affect mentoring success. However, this researcher's discussions with mentoring program participants and program administrators in local corporations suggest that the way in which a program is designed and implemented can also influence overall mentoring outcomes. This study seeks to broaden the range of factors considered in analysis of mentoring relationships, and to evaluate both programmatic and individual influences on the nature of mentoring outcomes.

Mentorship programs vary widely in the way they are administered by their respective companies. For example, some mentoring programs have firm procedures and guidelines for mentoring pairs to follow. Other programs provide minimal guidance to participants in mentoring programs. Mentoring program designers may also make certain assumptions about their participants, such as how their particular target population prefers to interact with others, or the amount of time which persons can afford to commit to the mentoring activity. It is important that program administrators understand as fully as possible which factors can play a decisive role in determining whether positive or negative outcomes are achieved, and likewise, which do not.

Figure 1 below illustrates various characteristics of mentoring relationships, divided into two general types, structural and individual. Those characteristics that fall in the purview of the program itself are deemed structural. Those which are principally attributes of the individuals participating are labeled 'individual'. Those quantities that depend on both the program and the individual are placed at the intersection of these two types.
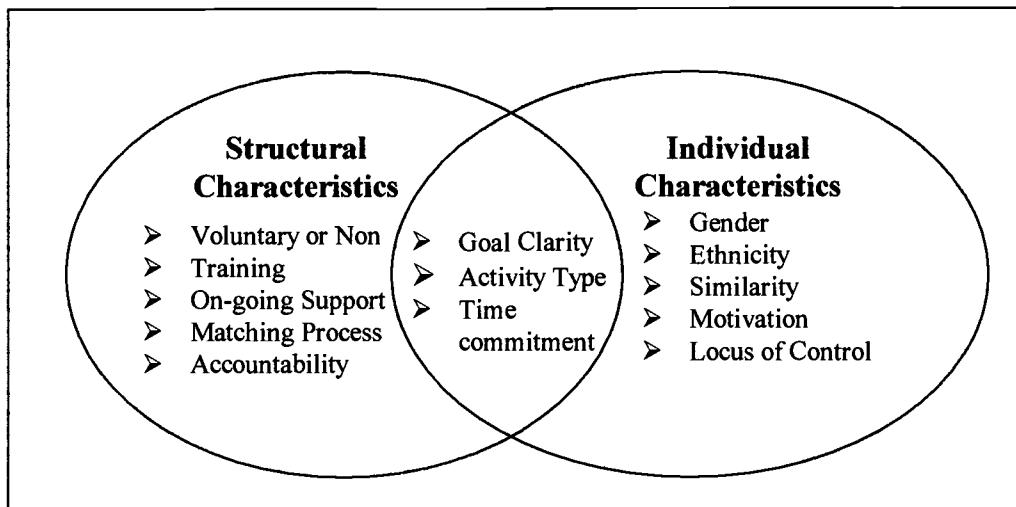
Figure 1. Some Characteristics of Formal Mentoring Relationships

<u>Structural Characteristics</u>

Specific structural characteristics can vary from program to program, and also within the same program. For example, a mentoring program may have several different processes by which a mentor and mentee are paired. So the use of structural in this context does not refer necessarily to fixed, constant attributes of a program, but rather to those characteristics which are determinable by the design of the program. Examples of structural characteristics of mentoring programs are discussed in the paragraphs below:

Voluntary versus non-voluntary participation. While many programs involve purely voluntary participation, others select mentees on the basis of "recommendation" by their managers, i.e. the manager believes that the employee needs additional development in a particular skill or practice. A mentee who resents his or her placement in a mentoring program may be predisposed to a negative mentoring experience.

Processes used to assign mentors to mentees. Programs may perform assignment of mentors to mentees, or they may place the responsibility on the mentee to seek out an appropriate mentor. When mentors are assigned by the program, mentees often undergo some form of pre-screening or evaluation of skills as part of determining appropriate focus for a mentoring partnership and the subsequent assignment of a mentor. In contrast, mentors are rarely screened for ability to mentor or for abilities to provide the needed type of support.

Program infrastructure support for mentoring pairs. After mentor and mentee are matched, the degree of involvement of the mentoring program thereafter can vary widely. At one

end of the spectrum, programs with a "hands-off" approach leave the pairs to take whatever course they chooses from there, with little or no follow-up. In contrast, other programs provide planning support, scheduled group meetings and training, define a minimum number of contact hours between mentor and mentee, and offer the services of a professional mentoring facilitator.

Degree to which goal of mentoring activity has been specifically articulated or understood. Participants in mentoring programs may not have a clear enough understanding or vision of what the outcome of their participation should be. When goals are not clearly defined, progress toward useful results could be hampered.

Nature of commitment expected from participants. The expectations which a program sets for its participants with respect to commitments of time and effort and expectation of results can also affect the success the partnership. Programs which frame participation in very open-ended terms would be expected to see greater variability in results.

Accountability for results. A mentoring program may or may not have any accountability to the corporation for results. Likewise, participants may also have no requirements to report on their progress or achievement of intended goals. In corporations where individuals are evaluated based on performance of the duties specific to their jobs, mentoring "unrelated others" may be given a low priority.

Individual Characteristics

In addition to variability in the structural characteristics of mentoring programs, there is expected to be significant variability among the mentor/mentee pairs participating in these programs. A subset of these variables include:

Mentor/mentee individual profiles. E.g. gender, age, ethnicity, personality, problem-solving style, locus of control, job positions/responsibilities.

Dynamics of interaction. Mentors and mentees communicate in different ways, e.g. e-mail, face-to-face, phone. They also vary in the dynamics of their communication. In one case, a mentor may tend to be very directive in his approach to the mentee, whereas another mentor and mentee may make decisions more as a team.

Degree of commitment of time/effort. Participants vary in the amount of time they are interested or able to put into their mentoring relationships. One would expect that frequency and length of meetings, for example, would have some impact on the quality of the experience.

Nature of activity. The focus of activity for a mentoring dyad may range from simply establishing a friendship to physically working together on a common project targeting the development of a skill. The outcomes of these very different kinds of relationships would be expected to differ.

Past research has generally focused on examining the role of participant characteristics in determining mentoring outcomes. However, this researcher believes that by not examining the structural characteristics of the mentoring program, a significant source of influence on outcomes may be overlooked. This study seeks to examine whether a range of specific individual participant characteristics as well as mentoring program structural characteristics play an influential role in mentoring success. It also examines for interactions among these factors. It is hoped that the results of this study will be useful in informing future mentoring program administration, both in corporate settings and elsewhere.

Relevant Existing Research

A significant amount of practitioner-oriented literature exists in the field of mentoring, focused primarily on providing guidance for implementing mentoring programs in business settings. These "lessons-learned" accounts of mentoring programs found in the literature often cite related types of success factors. Wunsch summarizes these thematic areas as follows (Wunsch, 1994):

- Definition, planning, and structuring of the mentoring program
- Selection and training of mentors and mentees
- Obtaining resources for mentoring
- Evaluating outcomes of mentoring

However, to achieve more consistent results from mentoring programs, additional empirical study is needed in the particular factors influencing mentoring relationship success and the way in which these factors interact.

Factors Related to Mentoring Success

The effects of program structural factors on mentoring outcomes do not as yet appear to have been well-investigated. However, several studies have been performed which examine the effects of within-program differences among individual participants as well as mentor-mentee pairs. Some of these findings are summarized below.

Perceived similarity. Ensher and Murphy (1997) examined a community youth mentoring program and found that mentees who perceived themselves similar to their mentors reported higher satisfaction with their mentoring experiences. Similarity was gauged by subjects responses to questions such as "My mentor/protégé was similar in terms of our outlook, perspective, and values" and "My mentor/protégé and I thought alike in terms of coming up with a similar solution for a problem."

Gender. Noe (1988), in his study of educator mentoring, reported that mentees in mentoring relationships that were heterogeneous in terms of gender were found to more effectively utilize their mentor than mentees in same-gender mentoring relationships. However, more recent studies indicate that varying the gender composition of mentor/mentee pairs does not appear to affect respective mentoring outcomes (Olian, Carroll, & Giannantonio, 1993; Turban & Dougherty, 1994; Ensher & Murphy, 1997).

Knowledge of past performance. Olian, et al. (1993) performed an experiment with 145 banking managers in which they were asked to consider a hypothetical situation involving the mentoring of a new subordinate, on the basis a partial profile of the subordinate. Knowledge of a mentee's past performance was found to have a significant effect on the managers' willingness to engage in career enhancing activities on the subordinate's behalf. In particular, mentors were much more willing to invest time and effort in a relationship with a mentee that they believed to be high performer than they were with simply an average performer.

Race/ethnicity. In a study of faculty/student mentoring relationships in a community college setting (Howard, 1992) ethnicity was linked to the degree to which a student availed themselves of mentoring opportunities. Asian-American and Caucasian students were found to pursue opportunities to be mentored by faculty significantly more than African-American or Hispanic-American students. Ensher and Murphy (1997) found that both mentors and mentees reported liking their respective mentoring partners more when they were of the same race.

However in the same study, no significant relationship was found between a mentor's overall satisfaction with his or her mentor and race heterogeneity or homogeneity of the dyad.

Focus of relationship. In a study of an adult/youth community mentoring program, mentors and mentees were found to function most successfully together when their focus was more directed, i.e. the more open-ended the purpose was perceived to be, the weaker the mentoring relationship (Hamilton & Hamilton, 1992).

Measures of Mentoring Outcomes

Studies on mentoring in corporate settings have evaluated mentoring outcomes in several different ways. These are outlined below.

Mentee Satisfaction. A simple way to gauge the overall outcome of a mentoring relationship is to measure mentee satisfaction with the relationship. This measure can be interpreted as representing whether the objectives of the relationship, *as understood by the mentee*, were in fact achieved. However, it is possible that the mentee's expectations may differ slightly from the specific objectives of the mentoring program. As such, other supplemental measures of success may be required.

Evaluation of mentoring received. Mentoring outcomes can also be measured by the actual mentoring received over the duration of the experience. Noe (1988) developed a Mentoring Functions Scale that measures the quality and quantity of professional mentoring provided along two primary dimensions, psychosocial support and career support. The scale instrument consists of 29 Likert-like questions to be completed by the mentee. An example of an item assessing the psychosocial mentoring function is: "My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her." An item such as, "Mentor gave me assignments that increased written and personal contact with upper management" is directed at gauging career support provided in the mentoring relationship.

Career Attainment. Another way of evaluating mentoring outcomes is to look at long-term effects of a mentoring relationship on the subsequent professional success of the mentee. Two such measures of success which have been shown to be enhanced by mentoring are compensation over time (i.e. frequency and size of raises, total salary) (Dreher & Ash, 1990) and promotions over time (Whitely, Dougherty, & Dreher, 1991). Turban and Dougherty (1994) used these two measurable variables as representatives of a single latent variable called *career*

attainment. The disadvantage of the use of this measure is that it requires longitudinal or retrospective data collection.

Due to the time constraints of this study, the success measures used were mentoring received (psycho-social support and career support), combined with overall mentee satisfaction.

Methodology

Subjects

The study population consisted of past mentees in corporate mentoring program designed to promote leadership development at a major technology firm in Silicon Valley. For this paper, we will refer to this program by the pseudonym 'Corporate Leadership Mentoring (CLM)' Program. The CLM Program focuses on mentoring high potential managers towards future advancement. To qualify for participation in CLM, an individual needs to be nominated by a senior manager or executive in a corporate business area. CLM participants are typically high potential and high performing middle or functional managers, who show particular promise for future executive leadership. The subjects were participants in either of two different administrations of the program, one in 1996 and the other in 1997.

The primary means for collecting information regarding individual mentoring experiences was through an internet-based questionnaire. First, a draft questionnaire was developed and feedback was solicited from both program administrators and participants. After a series of revisions, the final survey was posted at the researcher's website. Invitations to participate in the study, along with the website URL, were e-mailed to as many of the 1996 and 1997 CLM mentees as were able to be located in the employee e-mail directory. Approximately 500 persons were invited by e-mail to participate in the study. Of these, 139 completed questionnaires were returned by website-generated e-mail.

Dependent Measures

The survey instrument (see Appendix) contains a total of thirty-nine questions. Sixteen of these questions pertained to the assessment of the success of the mentoring relationship. Levels of career support and psycho-social support provided by the mentor were assessed using a slightly modified subset of the Noe Mentoring Functions Scale (Noe, 1988). The ten highest-loading questions for both Noe's career support and psycho-social support factors respectively were selected for initial inclusion in the instrument. However, four of these questions were later

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rejected, either because they were evaluated by reviewers as being too closely related in meaning to another question, or they assessed an outcome which was not defined as an objective of the CLM Program. The final questionnaire contained a total of six career support questions and nine psycho-social support questions. These questions were answered by selecting from five possible responses ranging from 'Disagree' to 'Agree'. One additional item was created which asked for the mentee's overall rating of his or her mentoring experience, to be selected from five possible choices: highly successful, fairly successful, neutral, somewhat unsuccessful, and highly unsuccessful.

Independent Measures

The remaining twenty-three questions in the questionnaire addressed the particulars of the individual participants and the specifics of their mentoring activity as recollected. The mentee's *perceived similarity* with his or her mentor was assessed using two questions from Ensher and Murphy's (1997) study of mentoring relationships, modified from Turban and Jones (1988). Other independent measures addressed in the questionnaire included: Clarity of goals of mentoring relationship (Q.3), degree of structure in the relationship (Q.18), amount of training received by mentor and mentee (Q.22, Q. 23), how mentor/mentee matching was accomplished (Q.24), geographical proximity of mentor to mentee(Q.26), principal style of meetings (Q.27, Q.28) (face-to-face, phone, e-mail), total mentor hours (Q.29), meeting frequency (Q.30), total length of relationship (Q.31), mentor/mentee gender (Q.32, Q33), whether pair worked on project together (Q.34, Q.35), and voluntary or non-voluntary participation (Q.38).

Finally, an opportunity was provided for the respondent to optionally elaborate on their answers in a free response text box, as well as to provide comments or recommendations regarding the program.

Other Data Sources

The CLM program manager was interviewed to obtain programmatic data, such as the nature of participant training, the mentor matching process, program infrastructure and support for mentoring pairs, and so forth. Although the baseline program and program guidelines were fairly well-defined and documented, the program manager reported that considerable variation did occur amongst actual relationships.

CLM Program Description

Data about the specifics of the CLM Program were obtained from two primary sources, the program administrator and program participant orientation materials, created by a consultant to this company (Phillips-Jones, 1996 (1), (2)). The structure of the CLM program remained essentially the same across 1996 and 1997. One cohort of CLM participants completed the program each year. In 1996, approximately 200 mentees participated, and in 1997, there were approximately 300 CLM mentees.

Program Objectives

The CLM program is framed by the following overall objectives, as defined in the orientation materials distributed to all participants in the program (Phillips-Jones, 1996 (1)):

1. Provide a framework for skill development of participants (mentees) in the CLM Program.
2. Provide mentees with coaching and encouragement to achieve higher levels of performance.
3. Enable CLM Program mentors to understand own effectiveness in using mentoring/coaching skills and provide ideas for improvement.
4. Ensure that mentoring/coaching skill improvement achieved by mentors will be highly leverageable to their teams.

The objectives of CLM target positive outcomes for mentor, mentee, and the corporation as a whole. However, this study focuses on the examination of the program's benefits for mentees who participated.

Assignment of Mentor/Mentee Pairs

Mentor/mentee pairings were made prior to any formal assessment of skills or needs. A mentor could be assigned to a mentee in one of three ways:

1. Program provides several choices from which the mentee selects one as mentor
2. Mentee finds and brings own mentor to program
3. Program assigns mentor directly, without mentee input.

After pairings were decided, an initial orientation was provided to both mentors and mentees. Mentee orientation lasted a total of four days, and consisted of two parts: 1) an individual Leadership Skill Assessment, which determines strengths and weaknesses in specific leadership skill areas, and 2) a two-and-a-half-day Leadership Assessment Workshop. The one-day mentor

orientation was comprised of a Mentoring/Coaching Skill Assessment and a Mentor Orientation Workshop. Attendance by mentors was optional.

Participant Expectations

This present study uses three measures of mentoring success: psycho-social support received, career support received, and personal evaluation. This latter measure provides an important link back to this particular program's definition of success. The primary referent for this particular measure would logically be the initial expectations as set forth by the program. These would include the prescribed program objectives above, i.e. the mentee should expect to develop specific skills. In addition, written guidelines to the mentee (Phillips-Jones, 1996 (1)) also stated that one's mentor should reasonably be expected to:

- Meet regularly with the mentee
- Provide sound advice on the CLM project or activity, key meetings attended by the mentee, and professional development concerns
- Be honest, yet caring and diplomatic with feedback.
- Follow through on commitments made to mentee.

Program Guidelines

The CLM program documentation provided a number of logistics-related guidelines to the mentoring pairs:

- Duration approximately 10 months, unless mutually agreed to end sooner.
- Meet or speak on phone a minimum of once a month
- Meetings should last a minimum of two hours. Phone meetings should last at least an hour.
- Activities should include a project, or other development activities, specifically oriented toward meeting mentee's CLM objectives.
- Content of meetings should discuss CLM project input, organization goals/objectives, or potential key meetings the mentee may attend.
- Mentor and mentee will attend together two key meetings where the mentee can observe leadership skills. These are work-related meetings which the mentee would not normally attend.

Ongoing Program Support

After the initial matching and orientation activities, the program did not provide any significant structure or support to the mentoring relationships. The CLM program office was available for facilitation or to address problems on a case-by-case basis. However, no group meetings were required and the recommended guidelines described above were not enforced in any tangible way by the program management.

Data Analysis

The data from the questionnaire responses were analyzed using a combination of quantitative and qualitative techniques. To check the appropriateness of the Noe model (Noe, 1988) for this set of data, factor loadings were computed, using a maximum likelihood method with Varimax rotation, for the 15 questions incorporated from the Noe Mentoring Functions Scale. The pattern of factor loadings observed by Noe was replicated, except for two of Noe's psycho-social questions, which aligned just slightly higher with the career support factor than with the psycho-social factor. These two questions were:

Q. 9. My mentor encouraged me to talk openly about anxiety and fears that detract from my work.

Q. 12. My mentor encouraged me to prepare for advancement.

The wordings of these two questions seem in fact to address both psycho-social and career-related concerns, and therefore the factor analytic outcome was not surprising. Factor 1 (career support) and Factor 2 (psycho-social support) explained 47.3% and 10.6% of the total variance across the fifteen questions respectively (cumulative = 57.9%). For the purposes of this study, Noe's original factor model was accepted as an adequate model.

Composite Success Coefficient

For each subject, a composite measure of psycho-social support provided, PS, was computed as the average of questions 5-12 and 16 (Sample mean(PS) = 4.01; Std. Dev.(PS) = .86). Coefficient alpha for this composite was equal to .89.

Likewise, a composite measure of career support provided, CS, was computed as the mean of questions 1, 2, 4, 13, 14, and 17 (reversed) (sample mean(CS) = 3.27; Std. Dev.(CS) = 1.14.) Coefficient alpha for CS was found to be 0.85.

Question 25 asked for the mentee's overall rating of the relationship: "Overall, I would evaluate my mentoring experience in this program as..." with choices: 'Highly successful', 'Fairly successful', 'Neutral', 'Somewhat unsuccessful', and 'Highly unsuccessful', which was converted to a numerical scale from 5 down to 1 respectively. The sample mean of Question 25 was 3.56, with standard deviation 1.28. Highly significant correlations were found between *PS*, *CS*, and the overall success rating in Question 25 (see Table 1).

	Psycho-Social Support (PS)	Career Support (CS)	Q25 Reported Success
Psycho-Social Support	1.0	.674*	.755*
Career Support		1.0	.806*
Q. 25 Reported Success			1.0

(* significant at .001 level)

Table 1. Correlations Between Success Measures

For each subject, a composite coefficient for mentoring success, *S*, was computed as the unweighted average of the values *PS*, *CS*, and Question 25. This overall composite *S* was then used as the primary dependent variable in the analyses below.

Correlational Analyses

Sample means and standard deviations were computed for the various quantitative measures (see Table 2 below).

	N	Min.	Max.	Mean	Std. Dev.	Var.
Clarity of Goals/Purpose	139	1.00	5.00	4.15	1.25	1.56
Degree of Structure	139	1.00	5.00	2.75	1.49	2.22
Perceived Similarity	139	1.00	5.00	3.67	1.00	1.00
Amount of Mentor Training	81	.00	8.00	3.93	3.16	9.97
Amount of Mentee Training	133	.00	8.00	6.12	3.01	9.08
Total Hours of Mentoring	139	.00	50.00	17.88	13.39	179.34
Number of Meetings per Month	139	.25	4.00	.92	.69	.47
Length of Relationship in Months	139	1.00	12.00	7.99	3.40	11.57
Career Support Received	139	1.00	5.00	3.27	1.14	1.30
Psycho-social support received	139	1.33	5.00	4.01	.86	.74
Question 25 (reported success)	139	1.00	5.00	3.56	1.28	1.64

Success (composite measure)	139	1.11	5.00	3.62	1.00	1.00

Table 2. Descriptive Statistics for Quantitative Variables

Several variables were found to correlate significantly with the composite measure of success, S. These variables were Clarity of Purpose/Goals, Degree of Structure, Working on a Project, Meeting Frequency, Total Mentor Hours, Amount of Mentee Training, and Amount of Mentor Training, as indicated in Table 3 below.

	Clarity of Goals/ Purpose	Deg. of Struct-ure	Worked on Project Together	Meeting Freqncy	Total Mentor Hours	Amount of Mentee Training	Amount of Mentor Training	Per-ceived Simila-rity
Comp. Success(S)	.69**	.53**	.50**+	.40**	.60**	.25*	.40**	.51**

(** significant at .001 level; * significant at .05 level; + adjusted pt-biserial correlation)

Table 3. Unadjusted Correlation Coefficients
for Composite Success Measure

The two measures 'Clarity of Purpose' and 'Degree of Structure' both correlated significantly with every other measure above. For that reason, partial correlations were computed to determine independent contributions of the remaining variables, holding 'Clarity of Goals" and 'Degree of Structure' constant. The results are indicated in Table 4.

	Clarity of Goals/ Purpose	Degree of Structure	Worked on Project Together	Meeting Freqncy	Total Mentor Hours	Amount of Mentee Training	Amount of Mentor Training	Perceived Similarity
Comp. Success(S)	-	-	.27*+	.14	.47**	.13	.1	.21*

(** significant at .01 level; * significant at .05 level; + adjusted pt-biserial correlation)

Table 4. Adjusted Correlation Coefficients Controlling for
Clarity of Goals and Degree of Structure

These coefficients indicate that the amount of mentor and mentee training does not predict success in mentoring relationships, after controlling for goal clarity and degree of structure. One possible explanation is that goal clarity was a key outcome of the training. However, significant

partial correlations with success are still indicated by three of these remaining independent variables. The correlation between perceived similarity and success were consistent with Ensher's (1997) findings.

Main Effects

Using ANOVA analyses, several variables were tested for main effects.

Gender: Gender combinations were examined in mentor pairings. No significant effects were found for mentee gender, mentor gender, or the pairwise combinations of mentee/mentor gender. .A nearly-significant interaction effect was observed in the case of male mentees and female mentors (n = 17; F = 3.16; p = .078). While the mean success coefficient of this group was considerably lower than the other gender combinations, the group size was relatively small, with a relatively high variance.

Working on Project. A positive main effect on success (S) was indicated for pairs that worked on a project together (n = 47) versus pairs that did not (n = 92) (F = 23.57; p < .001).

It was also investigated whether or not working together on a project might have some effect on the perceived similarity reported by the mentee. While some difference was seen in the sample means for perceived similarity between 'project' and 'no project' groups, it was not statistically significant. (see Table 5 below).

Project?	N	Mean Pcvd. Sim.	Std Dev.
No	92	3.59	.99
Yes	47	3.82	1.03
Total	139	3.67	1.00

Table 5. Means for Perceived Similarity
for 'Project' and 'No Project'

Distance Mentoring. 38% of the respondents were not co-located with their mentors, i.e. the mentor and mentee were located close enough for regular face-to-face meetings (Q.26). Interestingly, both proximity in location and meeting communication style were found to have no effect on success. That is, relationships where mentor and mentee were in closer proximity (i.e.

face-to-face meetings, as opposed to e-mail or phone) were not predictive of a higher success rate. Table 6 below indicates group sizes and the similarity of the means for physical proximity.

Co-located?	N	Mean	Std. Deviation
No	54	3.59	1.16
Yes	85	3.63	0.89
Total	139	3.62	1.00

Table 6. Success (S) Means for Co-location

Table 7 shows the frequencies and means for meeting communication method. Note that as only two respondents reported using e-mail for their primary communication method of mentoring, no meaningful statement can be made regarding the use of e-mail as a communication medium for mentoring.

Meeting Style	N	Mean	Std. Dev.
E-mail	2	3.31	0.04
Telephone conversations	35	3.87	1.03
Face-to-face meeting	86	3.57	0.91
Total	123	3.65	0.94

Table 7. Success (S) Means for Meeting Style

Voluntary or Non-voluntary Participation A main effect was indicated for the way in which the mentee consented to participate in the CLM program (Q.38). The mean success coefficients (S) for mentees who were either required to participate or who were strongly encouraged to participate, by their management, were not significantly different (3.89 (n = 7) and 3.96 (n = 65) respectively, on a scale from 1 to 5). However, the mean success coefficient for those whose participation was completely voluntary (n = 67) was significantly lower than the other two groups (Mean (S)= 3.26; F = 9.275; p <.001).

This finding is somewhat surprising. However, one possible explanation is that in the CLM program, the honor of being nominated or even required to participate may influence one's perception of the program's value from the outset, i.e. that it is valuable. On the other hand, certain managers may have 'nominated' prospective attendees by asking for volunteers. Persons

who volunteered, but were not strongly encouraged or supported by their managers, may have placed less value on the experience overall.

Mentor Pairing. Mentors were paired with mentees at program start in three possible ways: a) mentor was assigned to the mentee (n = 42), b) the mentee was given several choices to select a mentor from (n = 67), or c) mentee selected his or her own mentor (n = 30). No significant effect was detected for the manner in which a mentor was selected for a given mentee. No interaction effect mentor between pairing alternatives and mentee gender was detected.

Qualitative Findings

Written comments by respondents provided additional insights into these findings. Some key findings are summarized here.

Initial Mentee Assessment

One overall program strength noted time and again by respondents was the initial mentee "360°" personal evaluation, which included an individual ASI (Aptitudes and Skills Inventory) assessment and feedback session. Many commented that it was the highlight of their participation in the program. In some cases, this was contrasted with less positive experiences in the mentoring portion of the program:

"The initial training and feedback I received was outstanding.

"The Leadership Assessment course is very useful and well done."

"Though I grew from my mentoring experience, I got a whole lot more value from the CLM assessment workshop that I attended for 2 days before I met my mentor."

"The training in the program was excellent and highly successful. The mentoring in the program (at least for me) was very unstructured and added very little value. I do not believe that my mentor or I were able to accomplish the goals the CLM program laid out without some structured help or one of us having some experience with the program."

"The ASI program is a huge value-add! However the Program's success in my case was driven by myself... It seems to me that the program needs to track progress and support those challenged by the "loose" approach."

Suggestions for Program Improvement

Suggestions for improvement of the program focused on three general themes:

1. Need for greater structure in the program

"There was not enough structure or support for the CLM program. My management mentor and I were trying to understand what this program was, with little or no help from the [corporate] source. I was contacted ONCE during the entire program, and felt that I needed some training on what it meant to have a mentor!"

"Although the process for getting involved in a mentoring relationship was well defined, once you were in one, the processes and guidelines for managing this and making it work were not well understood. As a result, I think everyone was left to their own devices as to how to make 'it' work. I was fortunate, but I am aware of others who were not."

2. Dissatisfaction with mentor-mentee matching

"My mentor was 'randomly' assigned to me and I think it would have been better to have a process for matching mentor to mentee."

"The problem that I had was that the mentor that was chosen for me was a peer...I would suggest greater care be taken in choosing a mentor for each CLM candidate"

"Others in similar program had much less success due to poor or haphazard pairing. My participation was much more successful because I identified the objective I wanted and contacted a general manager for a list of possible mentors, then I recruited him myself."

"Just like a thesis, one must find a mentor/advisor who is interested in your topic. It turned out that my mentor, although interested in the subject, already had immutable opinions which were not to be changed by anything I investigated."

3. Lack of time/commitment on part of mentors

"A mentor must be committed to make the investment with his/her own time in this program. I would strongly encourage that it become a requirement that the Mentor attend the program once they have made the decision to participate..."

"I approached him and asked if he would be my formal mentor. He agreed. On the surface it would have been a great mentorship... however, the stress and time pressures he was under prohibited us from really moving forward in a productive way."

Distance Mentoring

Participants were also given the opportunity to comment on the logistics of meeting with their mentors. Of particular interest were the mechanisms by which mentoring at a distance, involving pairs who were not co-located, was accomplished successfully:

"We met mostly via the phone (monthly), but I also had an opportunity to shadow [my mentor] (a terrific experience!) and meet with her live a couple of times."

"I met with my mentor face-to-face twice and communicated via ad cc:Mail and scheduled phone conferences."

"All of the above – we were separated by 1000 miles but still managed several face-to-face meetings. We talk regularly on the phone and exchange e-mail on occasion."

The incorporation of at least some face-to-face meetings in the context of distance mentoring seemed particularly effective.

Discussion

The respondent comments support the quantitative findings in which Degree of Structure, Clarity of Purpose and Total Hours Spent By Mentor are seen to strongly predict successful mentoring relationships. It is also reasonable to interpret Total Hours Spent By Mentor as a dependent variable, influenced by variables such as Clarity of Purpose and Degree of Structure. This finding is quite useful, in that both Degree of Structure and Clarity of Purpose are variables that can be influenced directly, and fairly straightforwardly, by mentoring program design. Some potential program design features might include stronger program infrastructure support for mentoring relationships in progress, more stringent guidelines for relationship goal-setting, better mentor screening processes, measures for promoting accountability to commitments, and set program checkpoints or milestones.

The significance of Perceived Similarity in the relationship is interesting. How does Perceived Similarity operate in the mentoring relationship? Ensher and Murphy (1997) cited research on the formation of initial impressions, and their impact on subsequent interpersonal interactions (Arvey & Campion, 1982; Schiffman, 1990; Liden et. al, 1993). A slightly more descriptive theory might be that for a mentee to adopt his or her mentor as a role model, the mentee may first need to "connect" with the mentor, to sense some shared perspective or common sense of values. Through this the mentee both identifies with the mentor, and sees the possibilities for enhancing him/herself, in the qualities of the mentor. In doing so, the mentee becomes more open and motivated to learn from the mentor.

However, neither this study, nor the Ensher and Murphy study, examined how the similarity measure might be affected over time. From a utility standpoint, it is not evident that any programmatic intervention can effect a change in this variable, thereby potentially increasing the

chances of mentoring success. Assuming the dependency to be valid, one possible use of this finding, the practicality of which would need to be explored, is to consider assessing mentor and mentee behaviors/perspectives as part of the mentor and mentee pairing process.

Another positive finding of this study was the evidence supporting working together on a project as a predictor of mentoring success. This factor appeared to operate independently of Degree of Structure, i.e. each uniquely predicted success. A project may allow the mentee the opportunity to engage with the mentor in a variety of ways, in specifically job-related contexts, allowing the mentor to observe the mentor's leadership skills and ways of interacting with others. This finding should encourage mentoring program administrators to consider making projects a more central aspect of the mentoring relationship.

The manner in which mentees were matched to mentors did not exhibit any significant differences across the three different modes of mentor selection used in CLM. This implies that success was not dependent on who chose the mentor, the program or the mentee. However, this lack of effect combined with the qualitative responses above suggests that it is the *randomness* in the matching process which may need to be examined, and not 'locus of control' in mentor selection.

Another interesting finding was that neither proximity of physical location nor primary medium of communication (face-to-face, e-mail, telephone) appeared to affect mentoring success. In fact, some participants commented that in spite of distance, which would make regular face-to-face meetings impossible, they were able to accomplish their objectives through a combination of all three modes of communication.

After controlling for Structure and Clarity of Purpose Training, training time did not correlate significantly with success. It also appears from these responses, as well as from the range of data on mentor training times, that attendance by mentors at the mentor training session was not mandatory. While learning how to mentor or how to be mentored was not the principle objective of the orientation program, the nature of these responses suggests that consideration be given to making such an objective a higher priority.

This study sought to apply a general purpose measure of mentoring success to a specific program, with its own specified objectives. The assumption that either psycho-social or career-related support are explicitly desired outcomes of all professional mentoring programs may need

to be examined more closely. The CLM program, for example, emphasizes development of leadership skills, though not particularly aimed towards the goal of promotion or advancement in the company per se. One respondent pointed out this potential area of disconnect in the assessment:

> "This survey emphasized 'advancement' several times. I believe 'leadership' doesn't necessarily imply 'advancement'. In fact, I have taken a step 'down' in order to work part-tine. I believe my leadership skills... have significantly increased thanks to my mentor and the CLM program."

At the same time, the high degree of correlation between the three measures of success used in this study do lend some support for the model.

In retrospect, some items in the questionnaire could have been more effectively worded. For example, the training-related questions in this study addressed training time, but did not address training content or effectiveness. Questions of this nature would likely have been more fruitful than simply measuring the duration of training. Other factors, such as initial motivation of the participant, might very well have been useful to assess, but required measurement prior to entering the mentoring relationship, which was not possible in this context.

Conclusion

The strength of this study can be found in two major areas. First, the side by side analysis of both structural and personal variables allowed for a more comprehensive description of mentoring relationships, as situated in a formalized context. Secondly, although the sample population was drawn from a single mentoring program, the program was structured such that variations were present along all variables of interest, allowing comparative analyses to be conducted successfully.

Some limitations of the study have been discussed, including question wordings and the limited scope of the inquiry. *Mentor* evaluations of outcomes were not gauged as part of this study, even though the CLM program's stated objectives were aimed to benefit both mentor and mentee. Mentor assessment was considered, but in the end deemed logistically quite a bit more difficult, with issues of guaranteeing anonymity while needing to reconstruct mentoring pairs from

respondent data, as well as not being able to ensure that both mentor and mentee would respond, in a general call to participate.

Mentoring programs looking to produce more consistently positive mentoring outcomes, at least from a mentee satisfaction perspective, have as a result of this study some bases for enhancing their program design in tangible ways. The strongest predictors of mentoring success in this study were the three structural factors of goal clarity, degree of structure, and working together on a project. The following recommendations for mentoring program design can be made, based on these findings:

> The program should ensure that goals and objectives for the relationship are clearly defined and understood from the start, and remain clearly understood throughout the relationship.

> The program should consider having each mentoring pair select a project, large or small, to perform together in the context of the program. The project should be agreed upon by both the mentee and the mentor, and should have an accompanying schedule, milestones, and deliverables.

> The program should provide stronger guidelines regarding the expected number of meeting times, meeting frequency, etc. The program office should follow up with each pair several times over the course of the relationship to see if any obstacles have been encountered. A more structured relationship will also likely follow if the mentoring pair is working together project.

Though it may be logistically impractical to incorporate personality testing as part of the mentor/mentee matching process (to address the similarity finding), both the qualitative and quantitative data point to a need to look more critically at mentor suitability and commitment, as well as the incorporation of mentor training. Promising directions for further research include the conduct of studies that look in more detail at the operative behavior of goal clarity, degree of structure, project use, and mentor/mentee similarity, along with the design and evaluation of methods for mentor matching and training.

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Appendix A. <u>Correlation Matrix</u>

Correlation Matrix
n = 139

		Success (composite)	Clarity of Goals/Purpose	Degree of Structure	Perceived Similarity	Worked on Project	Total Hours of Mentoring	Number of Meetings per Month	Length of Relationship in Months
Success (composite)	Pearson Correlation	1.000	.685*	.538*	.506*	.383*	.604*	.402*	.564
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000
Clarity of Goals/Purpose	Pearson Correlation		1.000	.425*	.506*	.243*	.474*	.372*	.458*
	Sig. (2-tailed)		.	.000	.000	.004	.000	.000	.000
Degree of Structure	Pearson Correlation			1.000	.297*	.234*	.467*	.379*	.344*
	Sig. (2-tailed)			.	.000	.006	.000	.000	.000
Perceived Similarity	Pearson Correlation				1.000	.110	.233*	.153	.289*
	Sig. (2-tailed)				.	.198	.006	.072	.001
Worked on Project	Pearson Correlation					1.000	.239*	.131	.257*
	Sig. (2-tailed)					.	.005	.124	.002
Total Hours of Mentoring	Pearson Correlation						1.000	.539*	.543*
	Sig. (2-tailed)						.	.000	.000
Number of Meetings per Month	Pearson Correlation							1.000	.363*
	Sig. (2-tailed)							.	.000
Length of Relationship in Months	Pearson Correlation								1.000
	Sig. (2-tailed)								.

* -- > Correlation is significant at the 0.01 level (2-tailed).

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Appendix B: <u>Mentoring Experiences Questionnaire</u>

Mentoring Experiences Questionnaire

Thank you very much for choosing to participate in this study of mentoring At [company name].

Questions 1-19 address the specifics of your mentoring relationship. Questions 20-38 address the logistics of participating in the mentoring program. At the end of the questionnaire, you will have an opportunity to elaborate further if you wish. Remember that all answers are kept strictly confidential.

The following questions (1-19) ask for your reflections about the mentoring relationship in which you took part. Please select the degree to which you agree with each statement. Please describe your relationship as honestly as you can; remember there are no 'right' answers.

1. My mentor helped me meet new colleagues.

2. My mentor suggested/gave work-related assignments or tasks that prepared me for a leadership position.

3. My mentor and I understood clearly the goals and purpose of the mentoring relationship.

4. My mentor suggested assignments that provided opportunities to learn new skills.

5. My mentor demonstrated good listening skills in our conversations.

6. My mentor and I discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts.

7. My mentor shared his/her personal experiences as an alternative perspective to my problems.

8. I try to imitate the work behavior of my mentor.

9. My mentor encouraged me to talk openly about anxiety and fears that detract from my work.

10. My mentor conveyed feelings of respect for me as an individual.

11. I respect and admire my mentor.

12. My mentor encouraged me to prepare for advancement.

13. My mentor helped me finish assignments/tasks or meet deadlines that otherwise would have been harder to complete.

14. My mentor suggested/assigned activities to me that have increased my contact with people who may judge my potential for future advancement.

15. My mentor and I were very different in terms of our outlook, perspective, and values.

16. My mentor encouraged me to try new ways of behaving or interacting in my job.

17. My mentor did not give me any assignments or tasks to complete.

18. My relationship with my mentor was highly structured (scheduled meetings, assignments, deadlines).

19. My mentor and I thought alike in terms of coming up with a similar solution for a problem.

Questions 20-38 below address the logistics of your participation in the mentoring program. Please select the answer that most closely reflects your experience in the program. (Space is provided at the end if you would like to elaborate on any answer.)

20. What was the name of the program in which you participated? (if "other", please specify)

21. In what year did your participation in the mentoring program begin?

22. How much training/orientation on how to mentor do you recall your mentor receiving as part of the program ? (select best approximation)

23. How much total orientation/preparation/training was provided to you by the program itself? (select best approximation)

24. My mentor and I were paired together by...

25. Overall, I would evaluate my mentoring experience in this program as ...

26. Were you and your mentor located close enough for face-to-face meetings?

27. Our mentoring-related activities were accomplished primarily via ...

28. If "other" in #27, please explain below.

29. Please estimate the total time (in hours) your mentor spent working with you, talking with you, or writing e-mail to you during your entire participation in the program (not including training/orientation).

30. On average, how often did you communicate with your mentor (by face-to-face meeting, phone, e-mail, etc.) either for coordination or for actual mentoring activities ?

31. Approximately how long did your formal mentoring relationship last?

32. My gender is ...

33. My mentor is ...

34. Did you and mentor work together on a joint task, activity, or project oriented towards achieving the objectives of the program ?

35. If yes on #34, what was the nature of that project ? (If more than one, please list and describe as many as possible.)

36. How often have you spoken with your mentor since your participation in the program was completed?

37. Have you continued a mentoring relationship with this individual after your formal participation in the program was completed?

38. My participation in the mentoring program was... (mandatory, strongly encouraged by mgmt., completely voluntary)

39. Please use the space below to write any other comments or recommendations you may have regarding your experience in a mentoring program at [company name], or to elaborate on any of your answers above.

Congratulations! You have completed the questionnaire!

If you are open to being contacted for additional information regarding your mentoring experience, please provide your name and phone number below (in either case, your answers are kept strictly confidential):

.Name .   Phone Number

            Thank you very much for your participation!

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