

Two Bridges Too Far: Do Developmental and Geographic Distances Affect an Accounting Professor's Willingness-to-Mentor?

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With less-advanced graduate students more in need of mentoring than their more-advanced peers, and with graduate accounting programs embracing a distance-education model, every accounting professor will face mentoring a student who's developmentally further behind other protégés, must be mentored at a distance, or both. This study utilized a 3x3 vignette design to investigate whether graduate-school mentors gravitate toward currently-productive protégés and away from protégés who cannot meet regularly with their mentor face-to-face. Findings were consistent with expectations, but participants raised interesting issues related to mentor/protégé choice, protégé identity, and what it means to be in a medium-distance academic mentoring relationship.

OVERVIEW

Mentoring has been used by many accounting firms and departments as a powerful tool to help nurture, train, and retain high-quality professionals. Eby & Lockwood's (2005) qualitative review of protégé mentoring benefits in the work environment included learning, coaching, career planning, sponsorship, visibility, networking opportunities, role clarification, job enhancement, and pride for being selected as a protégé, and a good mentor has been shown to deliver significant positive benefits toward an accounting employee's job performance and ethical behavior (McManus & Subramaniam, 2009). These benefits are viewed as so important for a young professional that early career management advisors generally encourage those who are just starting their careers to quickly seek the guidance and support of a mentor (Greenhaus, Callanan, & Godshalk, 2000).

While research has documented many aspects of the role of mentoring in new professionals, only scant and limited empirical evidence has been examined with regards to our future accounting hires (i.e. accounting students). This shortcoming is surprising given that accounting students, particularly graduate students, represent the valuable resource pool to be drawn upon for the next professional generation. Meanwhile the Accounting Education Change Commission (AECC) has identified five key characteristics of effective accounting education programs, including "Guidance and Advising" (AECC, 1993), and a recent survey with over 105 award-winning accounting educators revealed that lack of faculty-student interaction and inadequate faculty support can impede a student's learning and motivation (Stout & Wygal, 2010). More pointedly: "faculty mentorship may not be the most abundant form of mentoring taking place on college campuses, given faculty time-constraints and reward-systems" (Campbell, Smith, Dugan, & Komives, 2012: p. 596). Such conflict between student needs and faculty resources calls for a better understanding on how to build faculty/student mentoring relationships in university accounting programs: a goal that's addressed by this study.

Within the university environment, Sands, Parson, & Duane (1991) defined a mentor “as a person who serves as a guide or sponsor: that is, who looks after, advises, protects and takes a special interest in another’s development” (p. 175). The basic theories underlying how mentoring is perceived to work parallel Vygotsky’s (1978) descriptions of an experienced person helping an inexperienced one learn more than the latter could have learned alone (defining his so-called “zone of proximal development”). Mentoring activities also can be related to “scaffolding,” process structures that are intended to direct, clarify, guide, and give feedback to the learner (McKenzie, 2000; McLoughlin, 2002), and they can take active (planned, intentional) or passive (presence, modeled) forms (Johnson, Simpson, Williams, & Kotarba, 1993). At the very beginning of the initiation stage (Kram, 1983) of a mentoring relationship is the selection event (Ragins & Cotton, 1991): that which occurs as the mentor decides who, from all available possibilities, will be his or her protégé. Selection is an extremely important first-step to theoretically understand in the mentoring relationship, for its result will set the stage for all of the other structures and activities to follow. It is upon that first step where this study is focused.

Further, questions regarding “who gets mentored and why” are important practical issues for those who agree that the careful design of an effective mentoring program for students is an accounting department’s “moral responsibility” (Weil, 2001). Some of those students may be struggling behind their peers and/or may be taking their coursework using a distance education model, and these two “bridges too far” (one developmental, one geographic) can adversely impact a student’s ability to secure the attraction of a graduate faculty mentor. Giving every student the assistance he or she needs, including those who are developmentally further behind and/or taking courses at a distance, should be a major concern for a department’s graduate-program administrator. This study contributes to our understanding of the effects of a potential protégé’s developmental and geographic distances on a graduate-school professor’s willingness to mentor.

Building upon the Allen (2004) vignette study by utilizing a finer-grained design, and holding protégé-ability and willingness-to-learn steady across all vignettes, this study prompted graduate school mentors to consider their reactions to protégés 1) who are developmentally further behind vs. those currently engaged in more advanced classroom and research work and 2) who are local and can be mentored regularly in-person vs. those living at a distance from the school and require mentoring assistance through communications technology. A qualitative component was included in the data collection process of this study to understand the mentor’s thought processes during protégé selection as suggested by Allen, Day, & Lentz (2005). This qualitative component was added to develop robust theory around the selection process by not just looking at empirical outcomes but by seeking to understand the reasons behind those outcomes as well. From these discussions the study’s participants contributed several interesting observations that are included herein.

BACKGROUND

Even if an accounting professor is coerced into participation by the department, with protégé already selected and thrust upon him or her, or even if the protégé initiates the contact: no amount of coercion or heart-tugging pleas can force a mentor into expending the time, energy, and commitment into a mentoring relationship that’s necessary for it to carry a reasonable level of meaning, quality, or intimacy (Finkel, Rusbult, Kumashiro, & Hannon, 2002; Allen & Eby, 2008). Whether a mentoring relationship is sponsored through a formal program or is informally initiated, it is the mentor who will hold the keys to the dyad’s tempo and style (Ragins, Cotton, & Miller, 2000). This tempo and style influences everything, including how the parties construct their relationship (with the mentor holding the bulk of the construction power), how and when they communicate, the topics they address or avoid, the advice that will be given, and the types and amount of mentoring functions provided (Bradbury & Koballa, 2008). Given an increased need for mentoring to the less-productive and distance-model graduate accounting students, two research questions come to mind: can students who are further behind in their programs find the mentoring assistance they need, and can a non-local student find a professor willing to mentor via telephone and/or email?

Level of Current Productivity (CP)

Because accounting-program mentors generally come from a late-adult period in which they can relax and enjoy the fruits of their labors, an obvious question is: “exactly what would prompt from them such near-altruistic behavior as taking on a protégé?” One set of potential benefits can come from improved job performance (Ragins & Scandura, 1999), such as in the form of research assistance from a currently-productive graduate student. A competing set of potential benefits can come from the self-satisfaction (Allen, Poteet, & Burroughs, 1997) inherent in a rewarding mentoring experience with a needy and appreciative protégé (Allen, Poteet, & Russell, 2000). The first major research goal of this study was to determine whether graduate-school professors gravitate toward protégés who are further along in their programs (completed more coursework and currently engaged in writing papers and attending conferences) or toward those who tend to be in the early stages of their programs and could use more mentoring assistance. Better ratings and rankings of the more-advanced students should indicate a mentor’s desire to have a trained protégé available, while an improvement in the ratings and rankings of less-advanced students should indicate a mentor’s desire to receive the superior self-satisfaction benefits that come from helping someone who’s more in-need.

Social Exchange Theory (SET) is viewed as the mechanism linking a mentor’s ratings and rankings of potential protégés to the job-performance or self-satisfaction benefits he or she expects to receive from the mentoring relationship. SET generally posits that most human relationships utilize a subjective cost-benefit analysis to influence their progression and outcomes (Homans, 1958), and either a direct-benefit action or a future-reciprocal action could be sought from a relationship (Thibaut & Kelley, 1959). SET has already been linked to intentions to mentor (Ragins & Scandura, 1999) and actual mentoring behaviors (Young & Perrewe, 2000) before, and the SET model works better for professional intimate relationships, such as mentorships, than it does for personal ones (Rusbult, 1983). The impact of perceived net costs or benefits appears to be particularly relevant in the early stages of a relationship (Knapp, 1978), such as in the initiation/selection stage of a mentoring relationship (Kram, 1983; Ragins & Cotton, 1991). Therefore, the mentor’s perception of how the current level of protégé productivity fits into his or her perception of the rewards expected from mentoring should drive his or her ratings of potential protégés on the basis of developmental distance.

Level of Technology Required (TR)

With several graduate accounting programs moving away from the traditional classroom face-to-face experience and toward a distance-education platform (Harris, 1999; Pena, 2001; JAE Call for Proposals, 2010), another obvious question regarding potential mentors is: “exactly how would they feel about taking on a protégé who must be mentored by telephone or email?” One set of answers could be in the negative: a professor may feel that the job-performance or self-satisfaction benefits sought from the relationship can only be received in person. A competing set of answers could be in the affirmative: not having a graduate-student protégé regularly “under foot” could be viewed as a boon to the professor’s schedule. The major second research goal of this study was to determine whether graduate-school professors gravitate toward protégés who live locally and can regularly meet face-to-face or toward those who live further away and must generally be mentored through communications technology. Better ratings and rankings of the less-distant students should indicate a mentor’s desire to have the protégé in regular attendance, while an improvement in the ratings and rankings of the more-distant students should indicate a mentor’s desire to meet with less frequency, more structure, or asynchronously.

The Technology Acceptance Model (TAM) is viewed as the mechanism linking a mentor’s ratings and rankings of potential protégés to his or her perceived usefulness of communications technology for bringing the mentor’s expected mentoring benefits to fruition. TAM posits that 2 primary factors lead to an individual’s use of a particular system: the perception that the system is useful for the intended purpose and the perception that the individual has what is required to successfully utilize the system (Davis, 1989). As one of the two factors, “usefulness for the intended purpose” must meet a minimally-acceptable perceived level before the system will actually be used. TAM has been linked with distance mentoring and the tutoring of students before (Diamond & Dutra, 2007), and it is a model of perception and not of

fact: it does not matter whether the technology is actually useful or usable, only how the potential user perceives it (Bagozzi, Davis, & Warshaw, 1992). Therefore, the mentor's perception of how well telephone and email communications fit his or her perceptions of what's important in the practice of mentoring should drive his or her ratings of potential protégés on the basis of geographic distance.

Open Question: the Interaction of CP and TR

Given that the two primary goals of this study related to the desired outcomes of the mentor (*valence*) and whether he or she believed that the use of distance-communication tools could lead to those outcomes (*instrumentality/expectancy*), it was reasonable to postulate that some interaction might exist between the ratings a mentor gives to potential protégés based upon their level of Current Productivity and their level of Technology Required (Vroom, 1964). With little or no precedent for predicting what kind of interaction would prevail, this study reports *post-hoc* how protégé ratings changed through the interaction of CP and TR. This study also reports how the subjects perceived that mentoring interactions would change at differing levels of CP and TR and what types of mentoring outcomes and circumstances influenced their willingness to mentor various protégés.

HYPOTHESES

Prior studies have shown that mentors are likely to gravitate toward high-performing protégés (Olian, Carroll, & Giannantonio, 1993; Green & Bauer, 1995; Allen, 2004). Reasons for this include expectations of higher-quality work products, the assumption they will generate more work output or exhibit more emotional stability, the concern that a low-performing protégé could reflect poorly on the mentor, or the mentor's need to manage limited time and energy resources: even though low-performing or struggling protégés may be more interesting to mentor and more intrinsically rewarding to work with (Allen et al., 2000). Therefore, the following two hypotheses were expected to hold true:

Hypothesis 1 – Ratings, Developmental Distance

“Vignettes for prospective protégés who are currently more-productive (more advanced coursework and research activity) will be rated significantly higher by prospective mentors than those for currently less-productive protégés.”

Hypothesis 2 – Rankings, Developmental Distance

“Vignettes for prospective protégés who are currently more-productive will be ranked significantly higher by prospective mentors than those for currently less-productive protégés.”

Engaging in intimate conversation without the benefits of verbal cues translates into the need for a reasonable level of competency in oral and written communications and computer applications on the part of participants (King, Engi, & Poulos, 1998). Further, the relative anonymity, time/space delays, or set of specified techniques inherent in Computer Mediated Communications could be viewed as anathematic toward the building of a deep and trusting relationship: personal contact with the other party may be seen as critical for the relationship's development (Zeithaml & Gilly, 1987; Dabholkar, 1992; Walker, Craig-Lees, Hecker, & Francis, 2002). Therefore, the following two hypotheses were expected to hold true:

Hypothesis 3 – Ratings, Geographic Distance

“Vignettes for prospective protégés who require less-technology-usage (email and telephone) for mentoring will be rated significantly higher by prospective mentors than those for more-technology-required protégés.”

Hypothesis 4 – Rankings, Geographic Distance

“Vignettes for prospective protégés who require less-technology-usage for mentoring will be ranked significantly higher by prospective mentors than those for more-technology-required protégés.”

EXPERIMENTAL DESIGN

This experimental study centered upon a university graduate-school program, where the enhancement of career and development opportunities for both academically- (Busch, 1985; Petrie & Wohlgemuth, 1994) and professionally- (Ellis, 1992; O’Neil & Wrightsman, 2001) inclined graduate students through mentoring has been well documented. The results should generalize into any environment where traditional mentoring relationships have been shown to carry strong developmental potential for their participants (Green & Bauer, 1995). This study was built around a 3x3 vignette design that portrayed fictional prospective graduate students as 1) low, medium, or high on a Current Productivity (CP) scale and as 2) low, medium, or high on a Technology Required (TR) scale. Graduate-school faculty members who might be called upon to mentor graduate students were the study’s experimental participants.

Vignette designs are valuable for mentor-choice studies for 2 main reasons: 1) they recognize that the mentor is the one with the power in the relationship and has a choice with regards to whether or not mentoring will actually be provided (Monaghan & Lunt, 1992; Wang, 2001), and 2) they honor the time, energy, and attention the mentor is being asked to commit to the relationship by giving the mentor room for determining what he or she wants to receive back in recompense (Stewart & Manz, 1995; Finkel et al, 2002; Allen & Eby, 2008). Allen (2004) performed an experiment using a similar vignette design as the one used in this examination, and this study modified and built upon the Allen study in three ways:

- 1) Allen’s participants were undergraduate students, while this study tested graduate faculty who were in a realistic position and age range for mentoring
- 2) One of Allen’s primary findings was that “strong ability” and “high willingness to learn” affected mentor preference, and this study kept both even across all protégé vignettes
- 3) Allen did not consider distance mentoring situations, nor did she ask participants for a qualitative discussion regarding the issues they actually focused upon while making their decisions: both of these elements were brought into this study

Allen, Poteet, and Russell (2000) specifically stated that “research using an experimental within-subjects design where mentors choose from among several potential protégés with varying characteristics may be helpful in further delineating who is more likely to attract the attention of a mentor” (p. 280), concisely summarizing the core construction of this study.

Materials

Nine protégé vignettes were designed with 2 imbedded manipulations: the 1st was Current Productivity (CP) and the 2nd was Technology Required (TR). CP was manipulated through a listing of the protégé’s classroom, conference, and research accomplishments and a short protégé statement indicating the protégé’s goals and level of need. TR was manipulated through the location of the protégé’s home city and a short protégé statement regarding his or her ability to meet with the mentor in-person. The 9 vignettes were imbedded with these manipulations to deliver a 3x3 vignette set.

The three Low-CP protégés were shown to be at lower levels of the program, not yet well accomplished, looking for assistance, and highly appreciative of someone who would help them to rise into higher levels of functioning. In other words, they represented “a project” ripe for self-satisfaction oriented outcomes. The three High-CP protégés were shown to already have a strong research history and one or more awards. They exhibited a desire to help the mentor increase publication output in return for their own increased experience and name recognition, with a readiness to enhance job-performance oriented outcomes.

All vignettes developed for this experiment presented the protégés in a positive light (given the assumption that a true problem-protégé would be construed as negative and likely would not be well rated

by anyone). Therefore, Low-CP protégés were presented as strong graduate students who are simply unproven, need help to develop their potential, and exhibit the personal appreciation and plea for assistance that should trigger any help-arousal instincts of the participant. Further, assuming that protégé willingness-to-learn has an influence on mentor choice as documented by Allen (2004), willingness to learn was held steady across protégé vignettes in this study: all vignettes expressed that the protégé was eager to learn from the mentor. The three Medium-CP protégé vignettes were targeted for a level of current-productivity midway between the Low-CP and High-CP sets.

Low-TR protégés were shown to be local to the university where the experiment took place and readily available to meet with the mentor in the mentor's office at any time. High-TR protégés were shown to live far away from the university and comments made in the vignette referred to 1) the rare, if any, occasions when the protégé could meet with the mentor in-person and 2) their need to use cellular and online technology as the primary medium of communication, at the time and convenience of the mentor.

All vignettes developed for this experiment presented the protégés as ready and able to meet with the mentor on a regular basis (given the assumption that a protégé who was consistently unavailable likely would not be well rated by anyone). Therefore, high-TR protégés were construed as eager and available to meet with the mentor regularly even if they must generally use distance-communication media to do so. The three Medium-TR protégé vignettes were targeted for a level of technology-required midway between the Low-TR and High-TR sets (the protégé lived a moderate distance away and could meet with the mentor in-person every 6-to-12 weeks).

A preliminary test was performed on the vignettes using a group of 5 volunteers before they were used in the experiment to help ensure the low, medium, and high categories for each manipulation were well targeted and that "ability" and "willingness to learn" were consistent and acceptable across all vignettes. The protégés' names, genders (2 females and 3 males were in the volunteer group), cultures (all 5 cultures used in the vignettes were represented in the volunteer group), previous schools, and pictures used for the vignettes were vetted by these volunteers for "normalcy" and were randomly and evenly rotated through the 9 vignette positions across the 66 experiments to resist the introduction of unintended factors.

Participants

85 graduate faculty members, including accounting and other business faculty, were invited to participate at a large U.S. research university using a snowball sample with 66 faculty members accepting (77.6%). Participants were 47/53% male/female, evenly spread across racial/cultural categories, and fairly represented across each snowball group. 5 of the participant indicated no prior experience with mentoring graduate students. Mean age was 46 years (low 28, high 72) and were normally distributed. Titles indicated that 21 participants were Assistant, 31 were Associate, 11 were Full, and 3 were Regents Professors.

Procedure

To begin an experiment, the participant was given one set of three vignettes. The set given to the participant met 4 requirements: 1) one vignette was low, one medium, and one high on the CP scale, 2) one vignette was low, one medium, and one high on the TR scale, 3) the group represented either 1 female/2 males or 2 females/1 male, and 4) the group represented three different cultural groups (a total of 5 different cultural groups were used). The participant was given time to read all three vignettes and was asked to rate them on a 1-to-7 scale with "1" meaning "I absolutely WOULD NOT want this protégé" and with "7" meaning "I absolutely WOULD want this protégé." After the rating process was completed the participant was interviewed regarding his or her ratings using open-ended questions such as "what do you see that makes you give this person that rating?" or "what makes these 2 vignettes different for you?" This discussion was documented to shed light on the participant's thinking processes during the rating process and took approximately 1 to 3 minutes.

With the first three vignettes returned to the interviewer, the next three vignettes were given to the participant. The set had to meet the same 4 requirements and the same reading, rating, and interviewing procedure was followed. Once the second set was returned, the last three vignettes were given to the participant for review and ratings (the set meeting the same 4 requirements and utilizing the same procedure). With the last three vignettes returned to the interviewer, all 9 vignettes (which by now had been shuffled into a random order) were given back to the participant with the request to rank the vignettes from the most-preferred protégé to the least-preferred protégé. After the participant finished the ranking process he or she was interviewed regarding his or her rankings using open-ended questions such as “when you ranked these vignettes, what primary factor or factors did you find yourself focusing on as you ranked them?” or “did you find these vignettes clustered into groups, such that some of them were very difficult for you to distinguish from one another, or did you find them fairly evenly spread out from 1 to 9?” The interviewer also specifically asked for more details about the highest-ranked, lowest-ranked, and centrally-ranked vignette. This discussion was documented to shed light on the participant’s thinking processes during the ranking process and took approximately 3 to 4 minutes.

To prevent any under- or over-representation of non-experimental factors across the 66 experiments, such as a privilege with regards to the gender, culture, and previous schools used in a particular vignette position, care was taken to rotate 1) the pairing of the vignettes (for example, in half the experiments vignette LL was paired with HM and MH while in the others vignette LL was paired with HH and MM), 2) the orders of presentation for the vignettes sets (first group, second group, or third group), and 3) the gender or cultural inclusions and pairings among any vignette position, pairing, or set. The particular constructed set of materials used with each particular participant was randomly assigned.

DATA ANALYSIS

The accumulated ratings and rankings data, along with some control-variable information, was consolidated in Excel and imported into SPSS 19.0 for further examination.

Summary Protégé Vignette Statistics

The ratings of the 3 low-category vignettes were averaged, the ratings of the 3 medium-category vignettes were averaged, and the ratings of the 3 high-category vignettes were averaged for each experimental instance to create a set of low/medium/high average-of-ratings statistics, and this was done for both the Current Productivity (CP) and the Technology Required (TR) manipulations creating 6 summary ratings statistics. A lower score indicated an under-appreciated direction for the manipulation (the participant gave lower value to the vignettes containing that manipulation in that direction) while a higher score indicated more appreciation for the manipulation’s direction.

Similarly, the rankings of the 3 low-category vignettes were averaged, the rankings of the 3 medium-category vignettes were averaged, and the rankings of the 3 high-category vignettes were averaged for each experimental instance to create a set of low/medium/high average-of-rankings statistics, and this was done for both the CP and the TR manipulations creating 6 summary rankings statistics. Since a ranking of “1” means “most-preferred,” in this case a lower score indicated an over-appreciated direction for the manipulation (the participant gave greater value to the vignettes containing that manipulation in that direction) while a higher score indicated less appreciation for the manipulation’s direction.

Participant’s academic title, prior mentoring experience, and snowball sample source-group were not found to have a significant relationship to any of the Summary Protégé Vignette Statistics. Interestingly, participant age was noted to somewhat correlate with the CP-related statistics in a manner that indicated older participants were more willing to choose less-productive protégés over more-productive protégés than their younger colleagues: this effect will have to be explored in future analyses. Participant age was not correlated with any of the TR-related summary statistics.

Hypothesis Testing

The four hypotheses proposed within this study were then analyzed using the Summary Protégé Vignette Statistics calculated for each participant.

Hypothesis 1 – Ratings, Developmental Distance

“Vignettes for prospective protégés who are currently more-productive (more advanced coursework and research activity) will be rated significantly higher by prospective mentors than those for currently less-productive protégés.”

A One-way ANOVA that tests the Average Ratings of the protégé vignettes across three levels (low, medium, and high) of the Current Productivity (CP) manipulation shows a significant difference in those Average Ratings ($F(2,195)=21.1$; $p<.001$). Paired-sample t-tests confirmed significant differences between ratings in the Low vs. Medium position ($t(65)=4.8$; $p<.001$) and between the Medium vs. High position ($t(65)=5.4$; $p<.001$). Average rating of the Low-CP vignettes was 4.1, of the Medium-CP vignettes was 4.6, and of the High-CP vignettes of 5.2 (larger averages indicate a higher rating). This hypothesis was supported.

Hypothesis 2 – Rankings, Developmental Distance

“Vignettes for prospective protégés who are currently more-productive will be ranked significantly higher by prospective mentors than those for currently less-productive protégés.”

A Friedman’s Analysis of Variance by Ranks that tests the Average Rankings of the protégé vignettes across three levels (low, medium, and high) of the Current Productivity (CP) manipulation shows a significant difference in those Average Rankings ($\chi^2(2)=58.0$, $p < 0.001$). Paired-sample Wilcoxon Signed-ranks tests confirmed significant differences between rankings in the Low vs. Medium position ($W(65)=3.9$; $p<.001$) and between the Medium vs. High position ($W(65)=5.7$; $p<.001$). Average ranking of the Low-CP vignettes was 6.3, of the Medium-CP vignettes was 5.2, and of the High-CP vignettes of 3.5 (smaller averages indicate a higher ranking). This hypothesis was supported.

Hypothesis 3 – Ratings, Geographic Distance

“Vignettes for prospective protégés who require less-technology-usage (email and telephone) for mentoring will be rated significantly higher by prospective mentors than those for more-technology-required protégés.”

A One-way ANOVA testing the Average Ratings of the protégé vignettes across three levels (low, medium, and high) of the Technology Required (TR) manipulation shows a significant difference in those Average Ratings ($F(2,195)=28.8$; $p<.001$). Paired-sample t-tests confirmed significant differences between ratings in the Low vs. Medium position ($t(65)=6.1$; $p<.001$) and between the Medium vs. High position ($t(65)=4.7$; $p<.001$). Average rating of the Low-TR vignettes was 5.4, of the Medium-TR vignettes was 4.6, and of the High-TR vignettes of 4.0 (larger averages indicate a higher rating). This hypothesis was supported.

Hypothesis 4 – Rankings, Geographic Distance

“Vignettes for prospective protégés who require less-technology-usage for mentoring will be ranked significantly higher by prospective mentors than those for more-technology-required protégés.”

A Friedman’s Analysis of Variance by Ranks testing the Average Rankings of the protégé vignettes across three levels (low, medium, and high) of the Technology Required (TR) manipulation shows a significant difference in those Average Rankings ($\chi^2(2)=27.3$, $p < 0.001$). Paired-sample Wilcoxon signed-ranks tests confirmed significant differences between rankings in the Low vs. Medium position ($W(65)=4.3$; $p<.001$) and between the Medium vs. High position ($W(65)=4.2$; $p<.001$). Average ranking of the Low-TR vignettes was 3.8, of the Medium-TR vignettes was 5.0, and of the High-TR vignettes of 6.2 (smaller averages indicate a higher ranking). This hypothesis was supported.

Open Questions: the Interaction of CP and TR (A Post-Hoc Analysis)

I wanted to see if there were interactions between participant ratings of vignettes from the Current Productivity (CP) and Technology Required (TR) main effects. Such interactions could be general across the full range of the main effects or could be isolated between the low/medium or medium/high levels. This information could be important for understanding the effects of the differing levels of these two manipulations on participants and for improving the designs of future studies. Therefore, two questions were advanced as Open Research Questions and were explored using the Summary Protégé Vignette Statistics imported into SPSS 19.0.

Research Question 1 – Ratings Interactions Between CP and TR

“Do the ratings given to protégé vignettes by category based upon their current level of productivity interact with the ratings given to them by category based upon the technology usage required for mentoring?”

A 3x3 Two-Factor ANOVA with Replication was performed to see if the Raw Ratings of the protégé vignettes across the three levels (low, medium, and high) of the Current Productivity (CP) manipulation and across the three levels (low, medium, and high) of the Technology Required (TR) manipulation appeared to interact by category. The results indicate that for the 66 participants there was an interaction effect ($F(2,2)=3.1$; $p=.01676$) between the levels of these two manipulations.

Research Question 2 – Ratings Interactions along Three Levels of CP and TR

“If there appears to be an interaction, where along the CP and TR levels do those interactions take place?”

Four 2x2 Two-Factor ANOVAs with Replication were performed to see if the Raw Ratings of the protégé vignettes across the CP and TR manipulations were stronger in some levels of the manipulations than in others. The results indicate that for the 66 participants the strongest interaction effect came between the medium/high levels of Current Productivity and between the low/medium levels of Technology Required, per TABLE 1 below.

**TABLE 1
INTERACTIONS AND MEAN-RATINGS ALONG THREE LEVELS OF CP AND TR**

F(1,1)=____; p=____		Technology Required	
		Low-to-Medium	Medium-to-High
Current Productivity	Low-to-Medium	0.74; .39162	0.06; .80956
	Medium-to-High	8.03; .00496	2.81; .09505

Mean Ratings by Category		Technology Required		
		Low	Medium	High
Current Productivity	Low	5.091	3.833	3.394
	Medium	5.409	4.409	4.053
	High	5.636	5.455	4.508

Summary of Results

The results of this experiment support both of the expected main effects: protégés who were highly-productive or who could regularly meet with the mentor face-to-face were preferred over those who were not-yet productive or required the use of distance technology in the mentoring relationship. These results were significant using both ratings data accumulated during the first three phases of the experiment and the ranking data accumulated during the fourth experimental phase.

There appears to be an interaction effect between a prospective mentor's ratings of protégés based upon their levels of Current Productivity and Technology Required. This interaction is most pronounced between the medium/high levels of CP and the low/medium levels of TR.

DISCUSSION

This experiment was designed to ask the participants to both rate and rank 9 protégé graduate student vignettes with 2 main manipulations built into them and to gather real-time interview data from the participants while they made their protégé-preference decisions. The analysis of the collected data shows how the manipulations imbedded within the protégé vignettes were viewed by the participants, with the interview data shedding light on the empirical results. The three primary indications were:

- 1) Protégés who are currently more productive are more highly valued by graduate-school mentors than protégés who are currently less productive
- 2) Protégés who require the use of distance communications technology for mentoring are less valued by graduate-school mentors than are protégés who can be regularly mentored face-to-face
- 3) Protégés who both are more productive and do not require the use of distance communications technology for mentoring enjoy a significant advantage in securing the attraction of a graduate-school mentor

During my discussions with the participants, four interesting elements emerged that help to shed light on what participants were thinking about as they rated and ranked these vignettes.

Item #1: Attitudes Toward Low-Performing Protégés

One common comment was that protégés who are further behind in the program may not be bad protégés, but they are unproven: they may require more effort to “bring them up to speed” than the mentor has available. Having an unproven quality brought a sense of risk that several participants noted made them nervous about investing time and energy into the protégés: even though working with those protégés would be more intrinsically rewarding. This could mean that a high-expectation environment may be far more powerful than mentor desires when low-performing protégés have trouble finding mentors.

Item #2: Attitudes Toward High-Distance Protégés

Another common comment related to an overwhelming mentor concern that working with a protégé at a distance might never work out. The nuances of mentoring, the mentor's need to have the protégé available when the mentor was ready, the inefficiency of having to communicate by email or phone exclusively, and the possibility of needing to use equipment or other artifacts together in their work were all cited as reasons why many participants doubted that a distance-mentoring relationship was viable. One participant commented that a protégé who moved out of town would immediately lose that mentor's help, and another participant absolutely refused to even consider mentoring a full-distance student (ratings of “1” on all three). Not everyone indicated a bias against distance mentoring, but where such a bias existed it was both visceral and vocally noted.

Item #3: The Unique Status of Protégé #7

Several participants commented that mentoring a highly-productive student was a different sort of relationship than what they were contemplating with the other students, and two outright noticed that the protégé in vignette position #7 – high on Current Productivity, low on Technology Required – was much less a “student” and much more a “peer.” This finding drags forward the oft-noted limitation regarding the definition of mentoring (for instance, see Johnson and Nelson, 1999): when a participant looks at a highly-productive protégé and sees a peer instead, he or she is flirting with the line between a mentoring relationship and a co-authoring one. This shift in relationship appeared to be even more pronounced when the protégé was locally located.

Item #4: The Differing Views Related to What Constitutes a “Moderate Distance” Relationship

Several participants mentioned that working with a moderately-distant protégé (one close enough to meet face-to-face periodically but far enough away to need some mentoring to be performed via telephone or email) was not any harder than one who lived nearby: and the distance could even be beneficial to the mentor. These participants indicated that they needed to see the protégé periodically, so fully distant mentoring relationships were not well received, but protégés who could come by for regular meetings and fill the time in between using distance technology would not be a problem for them. In fact, the periodic nature of working together would in person meant that the time they spent together would be more focused, resulting in a time-saving advantage for the mentor. Other participants saw “moderate distance” to be just as detrimental to the relationship as a protégé who required 100% distance mentoring. Therefore, the expected nature of a Medium-Technology-Required relationship with a protégé differed between participants: some linked that relationship more closely to the Low-TR level, others linked it more closely to the High-TR level. This split in how a moderate-distance mentoring relationship would work indicates that the needs and attributes of mentors could drive their willingness to accept distance protégés.

FUTURE DIRECTIONS

It is not too surprising that currently-productive and more-local protégés would be valued more highly by graduate-school professors than protégés who are less productive or more removed, but this result poses a complication for academic mentoring programs. Who could be more in need of a mentor than a protégé who is struggling or who does not have a quality potential mentor nearby? As graduate accounting programs increasingly embrace a distance-education platform, the non-local quality of many protégés will no doubt present challenges for mentoring-program administrators who need to find willing graduate mentors.

The 1st important implication for both theory and practice involves the interaction of environmental expectations with a mentor’s willingness to take on a less-productive or more-distant protégé. The more we understand environmental factors that may adversely influence a mentor’s willingness to help unproven protégés, the easier it would be to minimize them and to control their effects on future studies.

A 2nd theme to emerge was the effect that mentor age, and perhaps other mentor attributes, could have upon a mentor’s willingness to choose protégés will lower current productivity. It would be interesting to determine what it is about a higher age (less pressure to perform, more time available, more interest in developing a legacy, etc.) that could cause this effect so that these elements might be better utilized.

A 3rd implication represents a call for a stronger theoretical distinction between a protégé and a junior professional. Different protégé attributes likely interacted with the type of relationship the participant had in mind, affecting the acceptability of protégés based upon current productivity and distance. Matching mentors with the proper set of relationship expectations to protégés with the appropriate attributes should improve mentoring outcomes.

A 4th implication comes from the differing views participants had toward medium-distance mentoring relationships. This calls for an understanding of the variables that could affect how distance technology requirements affects a mentor’s acceptance of a relationship: the type of technology-connection required, the amount of time between face-to-face meetings, the type of projects worked, and mentor’s technology skills could all be factors.

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