A comparison of face-to-face and electronic peer-mentoring: Interactions with mentor gender

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Abstract

The present study compared the relative impact of peer-mentoring that took place either face-to-face or through electronic chat. Protégés were 106 college freshmen randomly assigned to a senior college student mentor and to one of the two communication modes. Fifty-one mentors interacted with one of these proteges face-to-face and one solely through electronic chat. Electronic chat resulted in less psychosocial support, career support, and post-mentoring protege self-efficacy for those with male but not female mentors. Analyses of coded transcripts revealed that males condensed their language to a greater extent than did females in the electronic chat condition relative to the face-to-face condition. Dyads in the electronic chat condition had more interactive dialogue than did those in the face-to-face condition. Finally, dialogue interactivity predicted post-mentoring self-efficacy but only for those who communicated through electronic chat.
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1. Introduction

1.1. Formal peer-mentoring

The term "mentor" is generally used to refer to an individual of advanced experience who is committed to supporting the development of another less experienced individual, namely the protégé (Levinson, Darrow, Klein, Levinson, & McKee, 1978). Mentoring relationships perform two primary functions: psychosocial and career support (e.g., Kram, 1985). Psychosocial support includes activities such as acceptance, role-

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modeling, confirmation, friendship, and counseling. In contrast, career support includes activities such as protecting a protégé from organizational harm, helping a protégé to network with others, advocating on his/her behalf, helping to enhance the protégé's visibility, offering advice, coaching the protégé, and providing performance feedback (Kram). Although, traditionally, mentors were thought to be hierarchically-senior (2–3 levels) to the protégé, more recently it has been recognized that mentoring can and does take place among junior and senior peers (e.g., Allen, McManus, & Russell, 1999; Allen, Russell, & Maetzke, 1997; de Janascz, Sullivan, & Whiting, 2003). In fact, one recent study found that protégés actually felt they received greater role-modeling from mentors who were closer to them in organizational rank (Allen, Eby, & Lentz, 2006).

Formal peer-mentors—those selected, assigned, and sanctioned by an organization—are often used as formal role-models to bolster protégés' confidence in their ability to perform new roles. Academic peer-mentoring, for instance, has been linked to a number of variables important for college student success, such as socialization (Allen et al., 1999), satisfaction with one's university, and intentions to graduate (Sanchez, Bauer, & Paronto, 2006). A growing number of these formal programs employ internet technologies to alleviate time and distance constraints that would otherwise prevent mentor-protégé communication. This trend has also been seen within organizations as the number of employees who telecommute continues to rise. In addition, e-mentoring has been used quite extensively to enable K-12 children to communicate with professionals in specialized fields (e.g., science and engineering) with the goal of motivating them to excel in related coursework (Single & Single, 2005). Despite the increasing use of e-mentoring programs, it has been noted that rigorous empirical research on the effectiveness of such programs is sparse (e.g., Ensher, Heun, & Blanchard, 2003). Although the few quantitative studies of e-mentoring that have been conducted (e.g., Hixenbaugh, Dewart, Drees, & Williams, 2006) suggest positive effects relative to no mentoring control groups, we could find no published experiments that directly compared e-mentoring to face-to-face mentoring. Moreover, only a few recent studies have investigated participant characteristics that moderate the effectiveness of e-mentoring (e.g., Smith-Jentsch, Scielzo, & Weichert, 2007). Such information is necessary in order for work organizations to judge when and for whom e-mentoring is an adequate substitute for face-to-face mentoring.

The present study addresses a critical gap in our knowledge by directly comparing face-to-face and e-mentoring with respect to mentoring functions provided, communication patterns, and post-mentoring protégé self-efficacy. We used an experimental design whereby protégés were randomly assigned to condition and to mentors. The potential moderating effects of mentor gender on the impact of communication mode was examined using ratings of psychosocial and career support from protégés, mentors, and objective coders. Communication patterns with respect to dialogue interactivity and the average length of mentor statements were also examined. Finally, these variables were investigated as predictors of post-mentoring protégé self-efficacy using a longitudinal design.

1.2. Electronic mentoring

Simply put, electronic mentoring (e-mentoring) takes place when career and psychosocial support is provided by a mentor through computer-mediated technologies. It is important to note that it can take many different forms. For instance, communication can take place synchronously (e.g., electronic chat, instant messaging) or asynchronously (e.g., email, message boards). Moreover, many programs employ a mixture of different communication modes, including phone and face-to-face meetings as well. Ensher et al. (2003) posited that mentoring relationships are most affected when participants communicate solely through electronic means. Thus, as our understanding of the variables influencing e-mentoring is in its infancy, we chose to compare face-to-face mentoring to that which took place *entirely* through the computer. Moreover, because we desired to control the method, frequency, and duration of mentoring sessions, participants in the e-mentoring condition communicated with each other at scheduled times from an experimental setting (as did the face-to-face participants) using private chat rooms. Data on mentoring processes were collected after the first three (15-min) weekly sessions.

1.2.1. Psychosocial and career support
Although prior research has demonstrated that e-mentoring can have benefits relative to no mentoring (Hixenbaugh et al., 2006), no published studies have yet empirically compared the relative benefits of face-