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**E-COACHING IN ORGANIZATIONS: A STUDY OF FEATURES,
PRACTICES, AND DETERMINANTS OF USE**

by

Rebecca Vaughan Frazee

A Dissertation Submitted to the Faculty of
San Diego State University and the University of San Diego
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Dissertation Committee:

Allison Rossett, Ed.D., San Diego State University
Fred Galloway, Ph.D., University of San Diego
Bob Hoffman, Ph.D., San Diego State University

May, 2008

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Rebecca Vaughan Frazee

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DEDICATION

For my dearest mother.

ABSTRACT OF THE DISSERTATION

E-Coaching in Organizations: A Study of Features, Practices, and
Determinants of Use

by

Rebecca Vaughan Frazee

Doctor of Education

San Diego State University and the University of San Diego, 2008

Employee development in organizations is moving away from classroom instruction to more individualized, flexible forms of just-in-time learning and support, such as e-coaching. E-coaching, conducted partially or entirely at a distance, offers convenience, cost-savings, efficiency, and improved access to people and resources. However, research on e-coaching for work-related purposes is limited. This descriptive and exploratory study used mixed methods to examine e-coaching extent, technologies and practices, and factors that influence deployment and success in organizations. A web-based survey gathered opinions from over two hundred workforce learning and performance professionals. Semi-structured interviews gathered critical incidents from twenty e-coaches. The researcher used Chi-square, analyses of variance, and regression analyses to examine differences by e-coaching level and the influence of individual, organization, and innovation factors.

Data showed that most coaching was delivered with little technology, with strong expectations for growth despite weak perceptions of coaching success and organizational support. E-coaching was more typically used as an alternative to face-to-face rather than as an opportunity to do something altogether new, and typically used to serve geographically dispersed employees, provide just-in-time support, address issues of scheduling, provide greater access to expertise and multiple perspectives, and reduce costs. E-coaching involved mostly e-mail, land line telephone, and sharing electronic files, with limited use of video conferencing, and was typically part of a formal and blended learning and development initiative rather than an ad hoc or standalone activity.

Certain coaching purposes, topics, and beliefs about e-coaching usefulness as well as a supportive environment were strong predictors of e-coaching level, technology choices, and perceived efficacy. Coaches valued relative advantage, compatibility, and familiarity over media richness, and they used technology-based tools to increase presence, humanize the experience, connect protégés to peers and resources, and track client progress. Many respondents felt that face-to-face contact was necessary for sensitive feedback, physical interactions, or addressing deeper issues. Group and just-in-time coaching received enthusiasm which supports the importance of learning by doing and on-demand resources. Findings converge with the literature and suggest several practical implications for organizations, individual coaches, and others interested in the effective design, support, and implementation of e-coaching for development and performance support.

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CHAPTER 1

INTRODUCTION

The vitality and expertise of the workforce is a growing focal point for many business and government organizations (Summerfield, 2006). Executives recognize the strategic value of human capital, which embodies the skills, training, and capabilities that employees bring to the job (Van Buren & Erskine, 2002). As many in the workforce near retirement, those responsible for human resources struggle to attract, develop, retain, and compete for top performers from an increasingly global, young, and mobile workforce. Other trends continue to alter the shape of employee development, such as the increased availability and accelerated pace of technological advancements, the short shelf-life of knowledge, the ever-increasing complexity of work challenges, and the growing prevalence of virtual work. For example, according to projections by the Gartner Group, by 2008 over 40 million corporate employees will work virtually at least one day per week, with 100 million doing so at least one day per month (Jones, 2005). Managers and employees are often continents and time zones apart.

Such forces are pressing organizations to find ways to reduce the distinction between learning and work and to provide just-in-time, flexible access to information, learning, and performance support in order to facilitate swift action and continuous learning and to improve human talent and intellectual assets (Brandenburg & Ellinger, 2003; Doyle & Hughes, 2004; Wagner, 2000; Wingard, 2000). For years, however, organizations have relied primarily on traditional training and development approaches. The American Society for Training and Development 2005 State of the Industry report showed an increase in the average number of formal learning hours per employee, up from 26 hours in 2003, and 32 hours in 2004, to a projected 34 hours per employee in 2005. The majority of that time, over 70% of all formal learning hours from 1999 to 2005, was spent on live instructor-led training (Rivera & Paradise, 2006). Unfortunately, formal courses that depend on face-to-face (face-to-face) classroom instruction or self-paced modules that rely on print, audio/video, and computer-based delivery tend to react to rather than anticipate learning and performance

needs, causing a lag between identifying those needs and satisfying them. Formal instruction typically removes the employee from the work environment to provide content presentation, examples, practice, and feedback. This often fosters a chasm between learning and work, requiring substantial effort to bridge that gap and ensure that skills and knowledge acquired during training transfer into performance with minimal degradation (Kirkpatrick, 1998). Even with this focus on improving transfer, research has suggested that much of what is trained is not applied back on the job (Ford, Smith, Weissbein, Gully, & Salas, 1998), and thus, these traditional approaches to training and training design, centered on courses and classroom instruction, are ineffective for meeting the demands of today's workforce (Broad & Newstrom, 1992; Collis & Margaryan, 2004; Wagner, 2000; Wingard, 2000).

WORKPLACE LEARNING AND PERFORMANCE

While classroom instruction still dominates, its use has begun to decline as organizations and workplace learning professionals (WLPs) opt for other forms of training, development, and performance support. Increasingly, organizations in government, higher education, and the private sector are using self-study as well as blended approaches that combine classroom delivery with e-learning and other formal and informal learning opportunities (Bagshaw & Bagshaw, 2002; Kenneth G. Brown, 2001; Graham, 2005; Rivera & Paradise, 2006; Rossett & Frazee, 2006). In a survey of over 350 workplace learning professionals conducted by the eLearning Guild in 2005, results showed a steady increase in the percentage of organizations using blended learning, with 100% of respondents planning to continue or increase their use of blended learning in 2006, up from 93% of organizations who reported using blended learning in 2005, and 85% in 2003 (Pulichino, 2006). With a focus on performance and results, forward-looking organizations also seek to integrate intellectual capital and work and are thus turning to more work-based solutions (Cross, 2002).

One of these work-based development approaches, coaching, is increasingly being used as a means to support learning and improve performance (Melancon & Williams, 2006). Coaching is a highly tailored and targeted development intervention derived from the assumptions that learning is a process, not an event, which should be active, learner-centered, self-directed, continuous, and context-driven. Coaching facilitates growth through practice,

observation, feedback, and reflection. It enables employees to quickly adapt to changes in the workplace. It encourages employees to take more responsibility for their own learning, development, and career advancement and can be used to meet the needs of diverse individuals as well as the time, place, and pace of learning (Bell, 1998). Coaching and mentoring are often used interchangeably, but there are distinctions. Typically, mentoring is more general and future-focused than coaching, concerned with ongoing support, longer-term professional relationships, and career development. In contrast, coaching is more specific and focused on present and near-future performance, tasks, and development goals. In most cases, a mentor is someone outside the chain of command, whereas a direct supervisor often provides coaching in the workplace (Luecke, 2004).

Coaching can be used alone or as part of a blended approach. For instance, as a post-training intervention, coaching can be used to reinforce skills and knowledge learned during training by providing guided practice and “learning by doing” back at work (D. Leonard & Swap, 2005). Such an intervention may include the use of job aids, action plans, and or strategies for overcoming resistance from colleagues (Bates, 2000). In an empirical study of executive coaching, Olivero, Bane, & Kopelman (1997), found that training alone increased productivity by 22%, while training supplemented by coaching increased productivity by 88%.

Eric Parsloe, CEO of The Oxford Total Learning Group, suggested that “Coach-mentoring is one of the fastest-growing and most effective methods to improve learning within large organizations...It is a very focused method that can be used to improve personal performance, increase the speed of induction programmes, and support a whole range of organisational learning initiatives” (OTLG, 2005). Though coaching is certainly not a new concept, its use in organizational settings to develop executives, managers, and other employees at all levels in the organization has greatly increased in the last several years (CIPD, 2007; Fournies, 2000). In 2007, the UK-based Chartered Institute of Personnel and Development (CIPD) conducted a survey of over 600 learning, training, and development managers who reported that their organizations *occasionally* or *frequently* use coaching by external practitioners (50%), and coaching by line managers (76%), with 73% expecting coaching by line managers to increase. A large proportion also expected increases in the use of e-learning (67%) and “mentoring and buddy schemes” (60%) (CIPD, 2007).

To go along with its increasing popularity, there is a growing body of evidence demonstrating that coaching provides many benefits for organizations and individuals. Many organizations consider coaching a strategic investment (Fillery-Travis & Lane, 2006) and use it to increase organizational alignment, cultivate intellectual and social capital, and build long-term competitive advantage (Morris, 2000). For individuals, coaching offers improvements in self-efficacy (Evers, Brouwers, & Tomic, 2006), vocational workplace skills (Hannah, 2004), and engagement and promotability (Schlosser, Steinbrenner, Kumata, & Hunt, 2006). In a 2004 survey of HR directors and managers by CIPD, almost all respondents agreed that coaching delivers tangible benefits for individuals and organizations including increased job satisfaction, improved succession planning, and employee retention (OTLG, 2005). Based on their review of academic literature on coaching from 1990 to 2004, Fillery-Travis and Lane (2006) concluded that, "In all the studies undertaken, investigating whatever mode of coaching, the conclusion was the same – everyone likes to be coached and perceives that it impacts positively upon their effectiveness," (p. 35). They cited a handful of empirical studies that reported evidence of coaching efficacy including increased productivity and quality (McGovern et al., 2001), improved relationships inside and outside of the workplace (Dawdy, 2004), increased leadership effectiveness (Thach, 2002), positive attitudes towards work and reduced turnover (Luthans & Peterson, 2003), and higher performance improvement for managers who were coached versus a control group (Smither, London, Flautt, Vargas, & Kucine, 2003).

Peer reviewed research and practitioner publications on coaching have escalated in the last decade. For several years now, Grant (2007) has continued adding to his annotated bibliography of workplace, executive, and life coaching from the behavioral science literature gathered from PsychINFO and Dissertation Abstracts International. The bibliography now includes 355 scholarly published papers since 1935. He concludes that even though there has been an increasing number of coaching outcome studies, approximately 70 since 1980, he and other researchers recommend that "more rigorous outcome research is needed to determine the effectiveness of coaching," (p.1). One limitation in the coaching literature is that it is confounded by the lack of any clear definition of the term "coaching" which has been applied to a wide range of topics and populations other than those related to the workplace such as coaching for health and family issues, life coaching,

and peer coaching in educational settings to name a few (Anthony M Grant & Cavanagh, 2004).

TECHNOLOGY FOR LEARNING AND PERFORMANCE

A powerful force affecting learning in the workplace is computer-mediated-communications (CMC) and widespread Internet access. Today, with over one billion people connecting to the Internet (MMG, 2007), technology is increasingly involved in learning, development, and support (Sugrue & Rivera, 2005). Though classroom training still dominates (CLO, 2007), according to the 2006 ASTD State of the Industry report, there has been a steady decline in the percentage of learning hours delivered through face-to-face classroom instruction, decreasing from 80% in 1999 to a projected 53% in 2006, in terms of size and industry, across a broad range of U.S. organizations (Rivera & Paradise, 2006). At the same time, the percentage of learning hours delivered via technology has continued its upward trend, increasing from 14% in 1999 to a projected 40% in 2006, with more than 60% of technology-based learning delivered via the web. In a recent survey of over 1300 members of Chief Learning Officer magazine's Business Intelligence Board (CLO, 2007), approximately half of respondents reported increases in their organizations' use of asynchronous (54%) and synchronous (47%) e-learning.

Technological advances are blurring the lines between face-to-face and distance learning (Osguthorpe & Graham, 2003). At last, technology infrastructures and tools are enabling the convergence of systems that support organizational communications, learning, knowledge management, and performance (Brandenburg & Ellinger, 2003). Now more than ever, just-in-time learning is possible, and workplace learning professionals are seeking new ways to embed information and learning in the work itself and into processes that already exist in the organization (Sullivan, 2005). When information and learning are insinuated into work processes, the notion of transfer loses importance as support and development are delivered in stride, when and where they are needed (Rossett, 2007).

Many organizations are starting to use mobile technologies to offer on-demand, just-in-time learning to employees via an iPod, PDA, "smart phone," or other web-enabled mobile devices, taking advantage of increased efficiency, "dynamically updatable content, modularity, and the ability to regularly broadcast content from business leaders" (Sugrue &

Rivera, 2005, p.20). The eLearning Guild surveyed its membership in 2006 and reported that over half of respondents were in organizations currently using mobile technologies to deliver informal and formal learning, and more than one-third indicated that this trend would increase (elearningguild, 2006). In Chief Learning Officer's 2007 study, 23% of respondents reported that their use of portable technology-based learning would increase over the next 12 to 18 months (CLO, 2007). Organizations are also beginning to use social networking software such as Facebook.com and LinkedIn.com (jmetheny, 2006), as well as centralized electronic knowledge sharing systems, to connect onsite and remote employees (Kaleba & Griffin, 2007), and to link people to experts, ideas, information, and resources (Sugrue & Rivera, 2005). "Web 2.0" technologies, which refers to a new perspective for using the web that emphasizes user-provider reciprocity and many-to-many versus one-way publishing ("Web 2.0," 2007), offer exciting opportunities through wikis, blogs, podcasts, RSS feeds, social bookmarking, performance support, knowledge bases, and online communities.

One area where computer-mediated and other distance technologies are making a big impact is in coaching, which traditionally has been done face-to-face (Hernez-Broome, Boyce, & Whyman, 2007). "E-coaching," also referred to as online or distance coaching, virtual mentoring, or telementoring, is becoming a growing part of this shift towards more individualized, flexible, and just-in-time learning, development, and performance support (Brandenburg & Ellinger, 2003; Kim, Bonk, & Zeng, 2005). Hernez-Broome, Boyce, and Whyman (2007) define e-coaching as "a two-way communication between a coach and coachee that is enabled through the use of technology, particularly computer-mediated communication such as e-mail and online chat or threaded discussion."

Through e-coaching, coaches and protégés communicate and maintain relationships anytime, anywhere, using a variety of available electronic and CMC tools such as land-line telephones, cell phones, voice mail, e-mail, discussion boards, text chat, and instant messaging, plus live web conferencing and pre-recorded audio and video delivered via the Web to the desktop or mobile device of choice (Stone, 2004). The availability of such a variety of means for synchronous and asynchronous communication is likely to alter the timing, scheduling, and formality of the coaching process. For instance, with e-coaching, coaches and their protégés can have ongoing conversations through more frequent and informal contact outside of regularly scheduled coaching sessions. Through these informal

conversations, a coach might reiterate and summarize what has been discussed, or a protégé might get quick, if not immediate, feedback and guidance from the coach as she tests out new ideas and skills on the job.

Several companies, including Hilton Hotels (Baldwin-Evans, 2006), Adobe (Barbian, 2002), BP, Hewlett-Packard, Microsoft, IBM, Intel, and Dow Chemical are using e-coaching (Stone, 2004; Tahmincioglu, 2004). E-coaching is being used to train engineers (Mueller, 2004), financial traders and investors (Anonymous, 2005), entrepreneurs (Anonymous, 2004c), school principals (McCampbell, 2002), and forestry professionals (Anonymous, Jan/Feb 2002). In rural locations where emergency specialists are scarce, trauma surgeons are using tele-coaching through real-time video conferencing to improve patient care (Lemieux et al., 2007). Not just a tool for supporting goals in the workplace, e-coaching is also at work for weight loss, retirement, flirting, parenting, and more (Rossett & Marino, 2005). Even adult videogame enthusiasts are getting e-coaching from expert teenaged gamers to improve their skills through online lessons, tips, and tutoring (Wingfield, 2006).

Though there is limited empirical evidence to support the enthusiasm for e-coaching (described in the next section), many do consider it a high-impact, low-cost career development tool (Bierema & Hill, 2005; Ensher, Heun, & Blanchard, 2003), with many benefits for individuals and organizations. E-coaching can be used to improve performance by supporting the acquisition of new skills, abilities, and perspectives. It can also transform resources, lessons, and records of interaction into valuable assets for future reference (Rossett & Marino, 2005). Scott Blanchard of Coaching.com says that technology is revolutionizing business coaching, enabling it to be used as a full-scale organizational initiative (Olson, 2001). Whereas traditional coaching can be idiosyncratic and costly, e-coaching allows organizations to provide effective coaching not just to a select group, but to people at all levels, making coaching more consistent, scalable, and cost-effective (Barbian, 2002; Charbonneau, 2002).

E-coaching can provide access to coaching for people who would otherwise not have the opportunity to receive training and development, or when traditional face-to-face coaching would be impractical due to cost, scheduling and geographic constraints (Bierema & Hill, 2005). E-coaching allows more flexibility in maintaining open communication due to increased options for how, when, how often and between whom communication takes place

(Hamilton & Scandura, 2003; Stone, 2004; Wainfan & Davis, 2004). E-coaching can also improve the quality of coaching efforts by allowing protégés to be matched with coaches based on compatibility rather than geography (Sparrow, 2006). It also opens up a larger, more diverse pool of coaches to broaden and enhance the experience for coaches and protégés. In their review of the literature on e-mentoring over the last decade, Single & Single (2005), suggested that e-mentoring provides benefits over face-to-face mentoring for some groups because it is less influenced by visual cues, individual characteristics, and social bias – factors which can disproportionately hinder minorities in face-to-face mentoring and coaching relationships.

Of course, there are also drawbacks to e-coaching. There can be a lack of spontaneity between coach and protégé when there is lag time between correspondence that decreases enthusiasm, momentum, and motivation (Stone, 2004). Providing coaching virtually can also surface concerns about confidentiality regarding messages sent digitally through e-mail or audio and video files (Olson, 2001). Participant expectations may not be aligned regarding the immediacy of communication and feedback. Furthermore, it can be more difficult to establish trust at a distance (Wenger, 1998), a critical element in any coaching relationship. Some coaches feel they are not as effective when they cannot communicate in person, and fear a poor assessment of their e-coaching performance (Hebert & Vorauer, 2003). Some coaches believe that coaching is not as effective through any means other than face-to-face for initial client meetings, where building trust is critical, for feedback sessions, and for coaching around difficult topics or behavior changes, or when one party has a heavy accent making it difficult to understand speech absent visual cues (Charbonneau, 2002).

EMPIRICAL STUDIES OF E-COACHING

In addition to anecdotal evidence, there have been a handful of empirical studies of e-coaching in the last several years that have described how technologies are used for e-coaching, the e-coaching practices that lead to successful outcomes, and factors that influence media selection for coaching, though most have been unpublished dissertations as summarized below.

Dissertation Research

DISTANCE COACHING AND TRAINING TRANSFER

Wang (2000) studied an international train-the-trainer program for the World Bank to examine distance coaching activities that facilitated the transfer of training. The program involved an on-site professional development course followed by six months of distance interactions with an assigned e-coach and peer learning groups. Consulting and advisory services were offered to those participants who requested it for three months following a six month period of coaching and peer collaboration. The course focused on online and distance learning best practices. As part of the course, students and coaches met for a three-week face-to-face class that included formal instruction and guided practice with the custom platform and technologies they would be using during the post-training coaching process. All coaches were experienced trainers with doctoral degrees with faculty positions at major universities. All students/protégés had advanced degrees in education and some experience as instructors. Wang used quantitative methods that included content analyses of distance communications, students' learning outcomes logs, and a transfer questionnaire for twenty-eight participants. *Providing resources to participants, building relationships with participants, and preparing for coaching*, as well as participant's perceptions of the *presence of supportive coaching* were all positively related to the transfer of training.

DISTANCE VERSUS FACE-TO-FACE COACHING

Berry (2006) conducted a web-based survey of approximately 100 coaches with a background in counseling, psychology, or related "helping" professions, asking respondents about their coaching and clinical practices done face-to-face and at a distance. In particular, she examined the relationship between communication modality, the working alliance or coaching partnership between coach and client (i.e., a personal/professional relationship including trust and agreement on goals and tasks), and problem resolution outcomes. Berry found high levels for both working alliance and problem resolution, with no significant difference between face-to-face versus distance coaching, thus concluding that distance coaching was a viable option. However, as these findings relate to the present study, it should be noted that Berry's study was not limited to coaching for work-related purposes, and

included a broad variety of coaching topics including athletic, spiritual, academic, behavioral, family, professional, and health-related coaching.

In this study, Berry had the survey respondents choose two clients they had worked with at least three times in the past year, one served primarily face-to-face and one served primarily at a distance. Participants completed two instruments for each client that measured their perceptions of the working alliance and problem resolution outcomes. The ratings were then compared. Only fifty coaches provided information on both a distance and face-to-face client. When asked what modalities they use the most with clients, 72% often or frequently used the phone, and 54% often or frequently used e-mail. Regarding other CMC technologies, most coaches reported never using internet chat (85%), audio (95%) or video (92%) conferencing for coaching. When asked how they worked with clients, 49% most often coached face-to-face, and 56% preferred face-to-face, while 50% most often coached by phone, and 43% preferred this modality.

FACTORS INFLUENCING USE OF E-COACHING TOOLS

In addition, there have been a few descriptive studies of e-coaching tools and practices. In a second study of the World Bank train-the-trainer program described above, Wadsworth (2001) examined how a specific set of internet technologies was used for distance coaching in a post-training environment, and the factors that influenced their use and non-use. The researcher used in-person interviews with fifty-five trainees (i.e. protégés) and ten coaches, participant observation, and document review. Seven technologies were used in the program including e-mail, threaded discussion forum, instant messaging (e.g., Yahoo, MSN, ICQ instant messaging), synchronous text chat space (e.g., available through web-conferencing and course management systems), help desk, progress reporting data base (e.g. post goals, competencies, and progress towards those goals), and a digital media archive repository for uploading and downloading media files, typically documents. Text chat rooms were used mostly for progress reporting, feedback, facilitation, and group work. E-mail, discussion forums, and live text-chat tools were perceived by protégés as most effective for communication as compared to instant messaging, help desk, progress reporting data base, and digital media archive repository. Barriers included network connectivity, connectivity speed, time to participate, and lack of awareness of and comfort with various technologies.

MEDIA SELECTION FOR EXECUTIVE COACHING

Using interviews with ten executives and each of their coaches, Charbonneau (2002) explored the factors that influenced the selection of face-to-face, telephone, e-mail, or videoconferencing for coaching. Nine out of ten coaches had used the phone for coaching, one had used video-conferencing, and several had used e-mail, though it is unclear how many coaches did so. Across this group of ten coaches, the average number of coaching hours was conducted primarily by face-to-face (48%, range = 0-85%), or by telephone (45%, range = 10-90%), with some coaching hours spent on e-mail (5.3%, range = 0-25%). Video conferencing (0.2%) and instant messaging (0.2%) were used in only a single instance each. According to the coaches, the factors influencing media selection in decreasing order of importance, included *accessing clients, the issue to be addressed, coach's need for visual cues, cost, client's traits and coach's traits, and client's organizational culture*. According to protégés/clients, media selection factors included *need for a trusting relationship, high stakes and pressure for results, type and complexity of the issue to be addressed, time pressure and scheduling conflicts, need to be understood in context, need for just-in-time coaching, and cost*. As you can see, factors cited by both executives and their coaches included characteristics of the individuals, the context, and the media/innovation itself, which relate to models of technology adoption discussed earlier.

Other Studies

Hernez-Broome (2002) used a quasi-experimental design to examine the differences in outcomes for a coached group (n=22) and a control group (n=21). The study involved the Center for Creative Leadership's Leadership Development Program (LDP) (described in the next chapter) that included telephone coaching as a follow-up to the weeklong workshop and half-day face-to-face session with a coach. Data collection involved structured interviews pre- and post-intervention in which both groups rated to what extent specific behavioral objectives had been met. Compared to the non-coached group, the coached group had more clearly defined and focused goals that were more related to leadership behaviors, and they reported greater success in goal achievement. The study findings are limited, however, in that it did not use a true control group -- the coached group consisted of those who elected to

receive coaching, and the "control" group came from those who elected NOT to receive coaching.

Among researchers, workplace learning professionals, coaches and clients alike, there is much belief in the power of coaching for boosting performance and enhancing professional development (Anthony M Grant & Zackon, 2004). With its goal orientation, emphasis on inclusion and involvement, and ability to address individual needs in context, it is not surprising that coaching enjoys growing acceptance. And with the integration of computer-mediated communications into practically every facet of personal and work life, e-coaching holds much promise for delivering coaching and facilitating continuous, just-in-time learning, and performance support. For example, anecdotal claims about the benefits of e-coaching abound, with clear advantages in virtual over face-to-face meetings, such as reductions in time and money associated with travel, enhanced consistency and accountability, and the increased frequency and flexibility of support and information exchange through just-in-time communications. However, there is very little actual knowledge about how to best use various tools for e-coaching.

NEED FOR THIS STUDY

Need to Study E-Coaching Across Settings

The few empirical studies of e-coaching are limited in their scope, tied to earlier technologies, or focused on a particular training program (Wadsworth, 2001; L. Wang, 2000). Some researchers have attended to one narrow type of e-coaching, such as executive or leadership coaching (Charbonneau, 2002). On the other hand, some studies included a wide variety of coaching topics and populations, such as life coaching (Liljenstrand, 2004) and health and family coaching, making it difficult to apply those findings to an organizational setting. Little research has been done on e-coaching for work-related purposes. The present study adds to the literature by examining work-related e-coaching across many settings, purposes, and applications.

Need to Study Context and Implementation

The design and implementation of any intervention must consider the larger system, or the "conditions of change" (Ely, 1999) that are necessary for success, including individual

and organizational factors (Snook, 2003). Because e-coaching is not only a technology innovation, but also a process innovation, it is important to examine e-coaching implementation at both the technology and process levels (Ensminger, Surry, Porter, & Wright, 2004). While much research on learning and computer-mediated communication has focused primarily on learning outcomes and features of the intervention itself, little attention has been paid to the process of implementation or the larger context (Kenneth Guy Brown, 1999; Dubrovolny, 2001; Gunawardena & Duphorne, 2001). For instance, there is little empirical evidence regarding the specific processes and tools that e-coaches use or why they choose one communication mode over another (Anthony M Grant & Zackon, 2004). Some scholars have suggested that future coaching research should investigate areas such as purpose and potential barriers and how these factors influence the use and effectiveness of one communications mode versus another (Anthony M Grant & Zackon, 2004; Wadsworth, 2001). The present study explores the interdependencies among factors that may influence the use and success of e-coaching, including e-coaching technologies and processes, individual characteristics, and organizational context.

Need to Include Mixed Methods and Multiple Viewpoints

According to Gunawardena, Carabajal, and Lowe (2001), "In order to improve our understanding of how to use online environments to foster learning, it is important to examine the online learning experience from multiple points of view . . . the complex nature of online learning calls for the use of multiple methods and multiple sources of data (p. 10)." Previous studies of e-coaching have involved mostly the examination of one particular coaching program (Wadsworth, 2001; L. Wang, 2000), or relied only on qualitative data gathered from small samples (Charbonneau, 2002). Furthermore, most studies of e-coaching have looked exclusively at the experiences of individual participants, those who provide or receive coaching. However, workplace learning professionals constitute one of the largest groups making decisions about designing, purchasing, and implementing coaching programs. Yet to date their opinions have been largely overlooked in the literature (Dagley, 2006). The present study broadly examines e-coaching at the participant and program levels, examining the perspectives of coaches as well as workplace learning professionals who are also important stakeholders in coaching.

STATEMENT OF THE PROBLEM

What is e-coaching as it is practiced today? What might it be, given the possibilities and hopes of users? What technologies are being used and how? How is e-coaching integrated with other e-learning and blended learning efforts, and how does it fit within the larger menu of training and development options? How are organizations assessing the value of e-coaching? Is e-coaching meeting the needs of all parties equally, including coaches and the organization? To date, little is known about the e-coaching process, the extent to which various technologies are being used for e-coaching, and what is meant by “e-coaching.” There is a dearth of research into the effectiveness and challenges associated with implementing the adoption of e-coaching programs in organizations (Mueller, 2004). It is happening, but there is little specificity about what is happening and to what purposes.

PURPOSE OF THIS STUDY

This study looks at how e-coaching is being used in organizations, the technologies and practices involved in e-coaching, and the factors that influence its use. The purpose of the proposed research was to map the terrain of computer-mediated and technology-supported coaching, now dubbed “e-coaching.” A secondary purpose of this study was to identify the conditions that may be most favorable for successful implementation of e-coaching in organizations.

RESEARCH QUESTIONS

This study was guided by two overarching research questions:

1. How is e-coaching being used in organizations today and as projected into the near future?
 - a. **To what extent** is e-coaching happening in organizations?
 - b. **For what purposes** is e-coaching being used?
 - c. **What types** of strategies, practices, and processes are involved in e-coaching?
 - d. **What technologies and tools** are being used and what is their role in e-coaching?
 - e. **How successful** is e-coaching in the views of workplace learning professionals and coaches?
2. **What factors** have the most influence on patterns of use and perceptions of success of e-coaching?
 - a. What factors related to the **individual** have the most influence?
 - b. What factors related to the **e-coaching innovation** itself have the most influence?
 - c. What factors related to the **organizational context** have the most influence?

SIGNIFICANCE OF THE PRESENT STUDY

Workplace learning and development professionals make many large and small decisions about how to create programs and advance performance in their settings. How do they decide? And how do they decide when an option is relatively new and unstudied?

The use of coaching and e-coaching as a workplace development and performance intervention has increased considerably in the last decade. As continuous, self-directed, and just-in-time learning becomes more prevalent in the workplace, educational researchers and practitioners must gain a better understanding of e-coaching promise and reality. While anecdotal reports abound, and empirical research on coaching is expanding, there is still little empirical evidence of e-coaching effectiveness or how technology, especially emergent computer-mediated communications tools, can best be employed (Anthony M. Grant, 2007; Hamlin, Ellinger, & Beattie, 2006; Hernez-Broome et al., 2007).

This study gathered empirical data in an attempt to gain a better understanding of e-coaching technologies and practices, how decisions are made about what technologies to use and how, as well as the contextual factors that promote the effective use of e-coaching in organizations. Findings from this study may help researchers, educators, workplace learning professionals, managers, and coaches make better decisions about when and how to deploy e-coaching.

DEFINITION OF TERMINOLOGY

- **Coach.** The term coach is used to refer to those who consider themselves professional coaches as well as those who may provide coaching-type services or conduct coaching-type activities in addition to their primary professional responsibilities. In some cases, *coaching* might refer to coaching activities and functions that are performed by an automated system.
- **Computer-Mediated Communication (CMC) Technologies.** Computer-mediated-communication (CMC) technologies refer to all distance technologies, including but not limited to telephone, e-mail, web-conferencing, and video conferencing. The author does not distinguish between telecommunications, multimedia, or web-enabled technologies.
- **E-Coaching.** The author defines e-coaching as coaching that is provided partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. E-coaching may be done by phone, e-mail, or other computer-mediated communications and in combination with face-to-face coaching. E-coaching also includes CMC tools and resources that individuals may use to support self-coaching, as well as tools and resources that

coaches use with their protégés for instructional and other purposes to support the coaching process.

- **In-Person.** In-person refers to meetings that take place between individuals who are physically co-located. The terms *face-to-face* (face-to-face) and *in-person* are used interchangeably. However, in some cases face-to-face may be used to describe meetings that are conducted synchronously at a distance using technologies that enable participants to see each other.
- **Mentor.** Mentoring is more general and future-focused than coaching. In most cases, a mentor is someone outside the chain of command who passes along domain-specific expertise, shares personal experience, offers their professional networks, and supports upward career mobility.
- **Participant.** Both coaches and protégés are *participants* in the coaching process.
- **Protégé.** The term protégé is used to refer to the individual who is receiving the coaching, also referred to as *coachee* or *client*.
- **Traditional Coaching.** Traditional coaching refers to in-person coaching without the use of any distance coaching experiences. It does not refer to coaching philosophy, models, or techniques.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this chapter is to review the theoretical foundations, research, and other literature relevant to the study of e-coaching to support and improve workplace learning and performance. For the present study, e-coaching refers to coaching that is conducted partially or entirely at a distance by phone, e-mail, or other computer-mediated communications (CMC), alone or in combination with face-to-face coaching, for purposes other than scheduling appointments and completing administrative tasks. Because this study is exploratory, the researcher is using a broad definition of e-coaching that includes CMC tools and resources that individuals might use to support self-coaching, as well as tools and resources that coaches use with their protégés for instructional and other purposes in the coaching process.

The chapter begins with a brief discussion of the theoretical foundations related to workplace learning and performance and technology adoption. Next is an overview of workplace coaching, including purposes, functions, features, benefits to individuals and the organization, and factors that facilitate or hinder coaching. This literature review focuses specifically on coaching in an organizational setting for work-related, organizational, or professional development purposes, not “personal” or “life” coaching. Furthermore, there are numerous definitions and models of coaching and mentoring; this study will not attempt to debate those distinctions. Finally, the chapter concludes with what is known about e-coaching, in particular. How is e-coaching used? What technologies are tapped? What does e-coaching contribute to individuals and organizations?

THEORETICAL FRAMEWORK

Three bodies of literature provide a theoretical foundation for this study: human performance technology, sociocultural learning theories, and theories of technology adoption and implementation.

Human Performance Technology

Human performance technology (HPT) is “a systematic set of methods, procedures, and strategies for solving problems, or realizing opportunities, that are related to the performance of people” (Addison & Haig, 1999, p. 299), including individuals and teams (Pershing, Stolovitch, & Keeps, 2006; Stolovitch & Keeps, 1999). The HPT approach attends to the whole performance system that involves the individual worker in the context of work, and takes into account individual as well as organizational factors that hinder or enable performance (Addison & Haig, 1999; Rummler, 1999; Tosti & Jackson, 2003). HPT is defined in terms of its principles and processes rather than its interventions (Tosti & Jackson, 2003) and thus moves beyond a traditional training focus to one that is outcome and performance centric (Robinson & Robinson, 1995). Whereas training is primarily concerned with encouraging the acquisition of new skills and knowledge, HPT is devoted to outcomes and results, advocating changes in both the individual and the environment. Human performance technologists rely on partnerships with their clients and other stakeholders. They systematically analyze the individual and workplace to determine what is causing gaps in performance and to identify opportunities for improvement.

Coaching and HPT practice rely on similar perspectives and processes. Both emphasize outcomes, rely on a provider-client partnership, and employ tailored strategies to address individual differences, needs, and requirements based on factors hindering performance. In many cases, the coaching (and HPT) process starts by establishing goals (optimal), then investigates current reality (actual), analyzes obstacles hindering goal attainment (barriers), considers a variety of alternative solutions, selects an appropriate action plan towards goal attainment (solution system), and assesses progress and outcomes (evaluation).

HPT solution systems are matched to drivers. Individual drivers include personality traits, beliefs, motivation, and competence (i.e., skills, knowledge, abilities). Organizational drivers include incentives; the work environment (i.e., tools, resources, technology, ergonomics, work flow, and other people); learning resources (i.e., information, communication, training, job aids, coaching and mentoring, continuous improvement, and on-the-job experiences) (Addison & Haig, 1999); and the organizational culture (i.e., values,

beliefs, vision, management practices, systems, structures, policies, procedures)(Rossett, 1999).

Solution systems include a mix of learning and non-learning strategies for improving performance (Pershing et al., 2006). Learning interventions, both formal and informal in nature, are targeted at the individual and used to help people acquire and reinforce new skills and knowledge. These may include instruction, on-the-job training, self-directed learning, coaching, measurement and evaluation, and feedback systems. Non-learning interventions targeted at the organizational level are focused on improving performance through incentives and rewards structures, clear expectations, and by providing a supportive work environment that includes tools, equipment, information resources, standards and policies, job design, management practices, career paths, communications systems, and so on.

Coaching can address both individual and organizational drivers. For instance, coaching may be used to boost confidence or overcome a lack of skills, knowledge and information by providing increased access to individualized resources, expertise, and social networks within the context of work and at the time of need. To demonstrate their investment in employee development and highlight advancement opportunities, organizations might use coaching as an incentive, offering personalized assistance tailored to individuals' needs and desired outcomes. For instance, Olivera, Bane, and Kopelman (1997) found that training increased productivity by 22% among executives, whereas training supplemented by coaching produced an increase of 88%.

HPT is also the basis for a successful professional association, a professional certification, and a philosophy that inspires the ways that many workplace learning professionals approach their work. According to the International Society for Performance Improvement, one of the leading advocates of HPT (ISPI, 2007), "training professionals are the first to acknowledge that training is seldom the sole solution to a business problem. In recent years, the business has learned the value of expanding its traditional training focus to applying a broader strategy that uses Human Performance Technology (HPT) to improve workplace performance." In 1996, the American Society of Training and Development (ASTD) sponsored research into the roles, competencies, and outputs associated with HPT, which became the book, *ASTD Models for Human Performance Improvement* (Rothwell, Sanders, & Soper, 1999).

As with any performance improvement intervention, the success of coaching depends upon individual factors as well as organizational context – both of which must be considered when exploring e-coaching programs in an attempt to understand best practices. Cavanagh (2006) advises coaches that “in order to understand our clients, we must understand how they are related to the situations, events, and systems in which they are involved” (p. 317). Considering HPT theory, one might expect coaching to be most effective when it is performance and results-oriented, pays particular attention to the worker in context, and is used to boost confidence, motivation, competence, and access to tools, resources, and expertise as part of a larger solution system.

Social Cognitive and Constructivist Learning Theories

Constructivists view learning as a process by which an individual actively constructs meaning through action, reflection, multiple perspectives, and interaction with others and the environment (Duffy & Cunningham, 1996). A sociocultural perspective considers knowledge to be socially constructed (J. S. Brown, Collins, & Duguid, 1989) and interdependent with the setting (Vygotsky, 1986; M. Wang, Laffey, & Poole, 2001). Embracing these theories, workplace learning professionals use coaching and e-coaching to provide individuals with multiple perspectives and bring learning and support closer to when and where the work gets done (D. Leonard & Swap, 2005).

LEARNING IS SOCIALLY CONSTRUCTED

Bandura’s social cognitive theory (SCT) (1986) suggests that cognition and meaning are formed by an individual’s internal beliefs, expectations, and intentions in partnership with the surrounding social system of interrelated tools, structures, and people (Salomon & Perkins, 1998). At the heart of this theory is the concept of self-efficacy and personal agency -- an individual’s context-specific assessment of ability to successfully perform a particular task and exercise some amount of control over personal behavior and the environment (Bandura, 2001). Personal agency is influenced by beliefs about personal capabilities as well as beliefs about a supportive task environment (Pajares, 2002). Perceived self-efficacy influences the self-regulation of motivation which in turn affects one’s goal setting and

choices about the kinds of activities, challenges, and courses of action to undertake (Cox, 2006).

Heslin (1999) presents a model of actions that coaches can take to support self-efficacy through *enactive self-mastery*, *vicarious experience and role modeling*, and *verbal persuasion* (Bandura, 1986, 1997). The most influential factor, enactive self-mastery, occurs when a person starts with “small successes,” believing that they “have what it takes” to tackle increasingly difficult challenges. Coaching supports enactive self-mastery by breaking down a difficult task into smaller, more manageable pieces; setting achievable goals which serve as progress indicators; providing constructive feedback; and recognizing accomplishments along the way. Secondly, role modeling can boost self-efficacy by allowing a person to observe someone else successfully, or unsuccessfully, perform a task (Bell, 1998; Stone, 2004). This vicarious experience gives ideas on how to perform the task and strategies for overcoming obstacles, thus boosting the observer’s confidence that he or she too can act in a similarly successful manner (Baldwin & Ford, 1988). For example, in the United States Special Forces training programs for parachute jumping, students observe expert jumpers; they then have one-on-one discussions with a coach who uses goal setting, further demonstration, and feedback to help the student acquire the skills and attitudes of a competent performer (Peel, 2005). Last, verbal persuasion builds self-efficacy when a coach praises the protégé for his or her capabilities, commitment, and/or effort towards improvement. Coaching can use all of these techniques to boost self-efficacy, motivation, and performance improvement.

An important social system in which learning and development take place is an individual’s “community of practice,” made up of peers, novices, and experts who all share a common knowledge and work practice (Lave & Wenger, 1991; Wenger, 1998). According to Vygotsky (1978), learning occurs best in the “zone of proximal development,” when an individual works on developing skills in the area just beyond his current capabilities. The coach-client dyad can be considered micro-level community of practice (Headlam-Wells, Gosland, & Craig, 2006). Coaching, mentoring, and cognitive apprenticeships allow less experienced members to work with and learn from more experienced individuals within the zone of proximal development. Adding technology to the mix, e-coaching, which uses distance communications tools to bridge time and space, allows individuals to expand their

social network and community of practice (Hamilton & Scandura, 2003) and interact with more colleagues, instructors, and subject matter experts to gain multiple perspectives, reflect, and get feedback as they collaboratively construct their own understanding of a particular topic (Gunawardena & Duphorne, 2001).

LEARNING IS SITUATED IN WORK

Brown, Collins, and Duguid (1989) suggest a model of situated learning where “practitioners develop their conceptual understanding through social interaction and collaboration...within the nexus of activity, tool, and culture” (p. 40). Situated learning is guided and encouraged through a process of cognitive apprenticeship, reflection and articulation, and coaching. Coaching requires the individual to take a primary, active role in determining goals and promotes context-driven, experiential learning by maximizing opportunities for concrete experience and active experimentation (Cox, 2006). Coaching provides timely and targeted feedback on performance and bolsters formal learning with managerial support (Foxon, 1997) as well as social and task support (L. Wang & Wentling, 2001) which have been shown to have an influence on workplace learning and performance (Broad, 1997; Broad & Newstrom, 1992; Ford et al., 1998; Holton, Baldwin, & Naquin, 2000; Olivero et al., 1997; L. Wang & Wentling, 2001).

By design, coaching and e-coaching are individually-driven, context dependent and social. Following constructivist and social learning theories, one might expect that the most effective coaching tools, techniques, and processes would be those that best allow people to connect with others who can help them learn about and cope with what they perceive as their biggest challenges at work.

Technology Adoption and Implementation

Organizations routinely introduce innovations into the workplace. E-learning, blended learning, electronic performance support, and e-coaching systems are technological and process innovations (Ensminger, 2005). In the present study, several theories of media selection and technological-change processes form a framework for understanding how individuals and organizations adopt technologies to deliver and support coaching: Rogers’ Model of Innovation Diffusion (1995), Davis, Bagozzi, & Warshaw’s Technology Acceptance Model (TAM) (1989), and Ely’s (1990) conditions of implementing educational

technology innovations. Based on these models, three main classes of factors emerge that might enable or constrain the diffusion and use of e-coaching in organizations: (1) characteristics of the innovation itself; (2) contextual factors related to the setting in which the innovation is implemented; (3) characteristics and perceptions of the individual user.

THE INNOVATION ITSELF

Rogers' Model of Innovation Diffusion (Rogers, 1995) focuses on five characteristics of the innovation and how perceptions about those characteristics influence rate of adoption.

- *Relative advantage* is the degree to which the innovation is perceived as more useful or beneficial than existing options in terms of social prestige, convenience, or cost savings (Grunwald, 2003).
- *Compatibility* measures how well the innovation fits with current values, systems, and needs.
- *Complexity* refers to how easy or difficult the innovation is to learn and use.
- *Triability* refers to the extent to which the innovation can be experienced or tested, with minimal cost or risk, before full adoption is expected.
- *Observability* refers to how easily the impact of using the innovation can be observed, either through one's own use or by observing others using the innovation.

Because many coaches and protégés consider coaching to be a personal experience, in order for a technology to be adopted for coaching, it must be perceived as appropriate, useful, advantageous, and congruent with a certain amount of intimacy. Might technologies that offer a more humanness be adopted more readily for coaching purposes? The amount of humanness offered by a communications technology can be characterized as its "media richness," a concept proposed by (Daft & Lengel, 1986) that includes the following four main types of affordances of the technology itself (i.e., perceived action possibilities or capabilities):

- The speed or immediacy of feedback (e.g., synchronous (real-time) versus asynchronous (time-delayed))
- The types of communication channels or cues (e.g., text, audio and voice tone and inflection, visual cues);
- The richness of language (e.g., natural versus controlled language);
- The personal nature or humanness.

The richest communication medium would be one that happens in real time with opportunities for immediate interaction and feedback, uses all available cues and natural

language, and involves a very human touch. According to this framework, face-to-face communication would be considered very “rich” because it takes place in real-time, uses multiple cues and natural language, and is highly personal. In contrast, basic text-based e-mail and short text messaging is “lean” because it is asynchronous, uses only one type of cue (text), can use controlled language (e.g., short hand), and can be impersonal. The “leaner” media are fattening up today. For example, e-mail can now allow users to embed graphic images, audio and video clips and to send and receive messages almost instantaneously through a high-speed Internet connection that is always “on.” Text messaging is nearly synchronous.

Following Rogers’ Model of Diffusion of Innovations, one expects to find that technologies which are more media rich or offer more humanness would be adopted more readily for coaching purposes. However, coaching can be used for a variety of purposes, some requiring more humanness than others. For instance, coaching might be used to provide someone with a quick solution to an immediate task at hand, such as fine tuning a document or presentation, which does not require human touch or communication richness. Or coaching might be used to help a sales person more effectively close sales or a manager deal with troublesome employees, requiring more humanness and communication richness. Therefore, one might expect coaches to make decisions about technology based in part on the purpose of the coaching, among other factors.

CONTEXTUAL FACTORS

Ely (1990, 1999) others (Ellsworth, 1998; Wadsworth, 2001) emphasize the importance of looking at environmental issues influencing the “implementation of educational technology in a variety of education-related contexts” (Ely, 1990, p. 299), such as technology, tools, technical support, organizational cultural, other users, incentives, geographic constraints, and time pressures. Ely (1990, 1999) suggested eight environmental factors or “conditions of change” that can facilitate successful implementation of instructional innovations that may involve technologies and/or processes (Ensminger et al., 2004). These conditions can be applied across diverse learning settings. Dissatisfaction with the status quo refers to the perception that the innovation offers utility or benefits over existing technologies or processes, similar to Rogers’ “relative advantage.” Those adopting

the innovation must possess the necessary skills and knowledge to use the innovation to perform. Adequate resources to support the use of the innovation must be available and accessible, such as hardware, software, technical support, personnel, finances, and other elements of organizational infrastructure. Organizations need to grant users time for learning to use, adapt, and integrate the innovation into daily practice. Proper rewards and incentives must be in place to provide users a reason to change what they are doing and to risk mistakes or inefficiencies as they get up to speed with the innovation. There must be expectations from the organization, peers, and supervisors that the innovation will be used, as well as encouragement and opportunities for participation upfront in the decision-making and design process to build buy-in and ownership among stakeholders. There must be clear commitment to the implementation from stakeholders at all levels: this can come in the form of personal statements and communications as well as policies, procedures, and the dedication of resources. Finally, there must be clear leadership for the innovation, a champion at the top as well as a shepherd to manage and drive day-to-day implementation effort (Ely, 1999).

INDIVIDUAL FACTORS

Davis' Technology Acceptance Model (TAM) (Davis et al., 1989) was initially developed to explain and predict computer usage. It is an adaptation of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, (1975)), an extensively studied model from social psychology that has been used to understand the determinants of human behavior. The TAM examines two beliefs, *perceived usefulness* and *perceived ease of use*, as key factors that influence an individual's attitudes, intentions, and actual usage of computer technologies. These concepts are similar to Rogers' concepts of complexity and trialability. Furthermore, the TAM considers how perceived usefulness and ease of use are influenced by other factors such as an individual's computer background and perceived organizational support. Today, the TAM is commonly used as a framework to predict initial adoption as well as continued use of information technology across a variety of computer technologies and settings (Grunwald, 2003; Hong, Thong, & Tam, 2006). Following the TAM theory, one would expect the prevalence of e-coaching to be higher among coaches and protégés who believe that coaching works and that using technology for coaching adds value to the experience. Other individual factors that can affect technology adoption include personal

traits such as gender, age, self-efficacy beliefs, risk aversion, and prior experience as well as attitudes, personal needs, and goals (Grunwald, 2003; Liljander, Gillberg, Gummerus, & van Riel, 2006; Walker, 2004)

COACHING IN ORGANIZATIONS

Coaching is an emerging, multidisciplinary practice with coaches drawing on a wide range of theoretical and methodological approaches including organizational development, industrial organizational psychology, adult education, sports psychology, counseling, and consulting. As a workplace performance improvement strategy, coaching has enjoyed growing popularity in the last decade (2004).

Coaching: Then and Now

It has been suggested that the term “coach” comes from the Hungarian word for “covered,” *Kocsi*, used to refer to the carriages of Kocs, the Hungarian village where superior carriages were built to carry passengers over the bumpy main road between Vienna and Budapest (Anonymous, 1851; Casselman, 2007; Harper, 2001). Just as a carriage coach ports passengers to their desired destination, a personal coach helps individuals or teams reach their goals, moving them from where they are now to where they want to be. The term is also associated with a tutor or private instructor. According to some, the term “coach” was used historically to describe the practice undertaken by affluent families who would bring along a servant to read aloud to them or tutor the children in their studies as they drove long distances in their coaches (Casselman, 2007). The meaning “instructor/trainer” emerged circa 1830 as slang for a tutor who “carries” a student through an exam, followed by the notion of coach in the athletic vernacular. Today, referring to Socrates and the “Socratic method” of non-directive questioning to facilitate self-discovery and problem-solving, the concept of coaching is aligned with the idea that through personal experience, one is one’s own best teacher. Thus, the coach’s role is predicated on questioning to guide and facilitate learning in another rather than directing learning and behavior change in a didactic manner. In 1981, Personnel Decisions International (PDI) was the first organization to offer structured and personally-tailored coaching for business management (McLean, Yang, Kuo, Tolbert, & Larkin, 2005). Since then, the coaching practice has become a burgeoning industry that is moving towards self-regulation and professionalization. Thomas J. Leonard, considered by

many to be the “father of personal coaching,” founded several professional coaching organizations including CoachU in 1992, the International Coaching Federation in 1994, and CoachVille in 2001 (CoachVille, 2007; T. J. Leonard, 1999). Coachville suggests that “coaching is simply a set of advanced communication and relating skills, with knowledge and experience woven in,” and purports that part of the tremendous growth in coaching is happening in the non-coaching sector, where managers and other professionals are becoming “more coach-like in their dealings” (CoachVille, 2007).

The International Coaching Federation (ICF), the most widely recognized professional organization and accrediting body for coaches today, has over 12,000 members. The ICF has established ethical and professional standards and serves as an independent body for certification and credentialing. According to a recent ICF study conducted by Pricewaterhouse Coopers, there are approximately 30,000 coaches worldwide. Around ten percent of those coaches (n=3000) currently hold an ICF credential at various levels of mastery: 1,377 Associate Certified Coaches (ACC), 1056 Professional Certified Coaches (PCC), and 621 Master Certified Coaches (MCC) (ICF, 2007b). In 2004, Grant and Zackon surveyed over 2,500 members of the ICF. Their sample included a mix of business and life coaches who held an ICF credential (19%) or some other sort of coaching credential (57.3%), and came from business, social work, psychology, and counseling. Former consultants, executives, managers, teachers, and sales people were included. Their clients were mostly managers (47%), executives (46%), entrepreneurs (35%), small business owners (30%), and professionals in private practice (28%). In addition to the ICF, there are many other professional organizations such as CoachU.com, CoachVille.com, The Foundation of Coaching, and the World Wide Association of Business Coaches that offer training, certificate programs, and coaching resources including client coaching programs, assessments, and other coaching tools.

Despite widespread popularity, there are reports indicating that coaching is underutilized in organizations (McLean et al., 2005; Pernula, 2007). In 2005, ASTD reported that among twenty-nine “ASTD Best” organizations representing approximately 46,000 employees, of the 70% of employees who have access to coaching, only 44% actually take advantage of it (Sugrue & Rivera, 2005). Interestingly, this figure is in line with employee usage of other learning opportunities offered in the same organizations. In the same study

ASTD reported that every hour of available learning content was received by only 40% of employees in 2004 and 51% in 2005 (Rivera & Paradise, 2006). In 2007, The Institute for Corporate Productivity (formerly the Human Resource Institute) conducted a Coaching/Mentoring Practitioner Consensus Survey of approximately 300 organizations (Pernula, 2007). Though 60% of respondents said that they believe coaching is *quite valuable* or *very valuable*, fewer than half (49%) reported that their organizations had formal coaching programs in place for leadership development of executives and managers. Of those who reported having coaching programs, less than 20% rated their programs as *good* or *excellent*, with over half (52%) reporting that a mere 5% or fewer workers actually use the available coaching.

Coaching and Other Related Practices

Because coaching is multi-disciplinary and emergent, the definitions of coaching are numerous and varied (Anthony M Grant & Zackon, 2004). Some emphasize the facilitative process of coaching to help others realize their own potential (ICF, 2007b; Whitmore, 2002). Others emphasize the coach's role in creating a structured and supportive learning environment (WABC, 2007). Many definitions are concerned with deeper change or near-future goals and centered on the coach-protégé relationship (Passmore, 2007). For instance, CoachVille defines coaching as "a supportive relationship with a primary focus on clients achieving their goals, solving problems and making the most of themselves and their opportunities" (CoachVille, 2007). Comparing these various relationship-oriented definitions, one finds many commonalities. Coaching is a systematic, goal-oriented process, tailored to the individual's interests and goals, and predicated on an interactive and collaborative partnership between coach and protégé. Coaching stresses the importance of analysis, self-directedness and reflection, and involves ongoing commitment, action, and conversation to enable continuous progress towards desired goals which may include learning, behavior change, performance improvement, and business results. Other authors characterize coaching as more presently focused, such as Carter and McMahon (2005), who use the term "workplace coaching" to describe how coaching can be used to support specific tasks and behavior to "lift, sustain and improve the performance of the individual and the team" (p.140).

According to the ICF, “coaching is a distinct service and differs greatly from therapy, consulting, mentoring or training” (ICF & PricewaterhouseCoopers, 2007). For instance, Grant and Cavanagh (2004) stress that the coaching process is systematic, goal-directed, and focused on positive change and solutions rather than analyzing past problems. Similarly, the ICF suggests that “coaching concentrates on where clients are now and what they are willing to do to get to where they want to be in the future,” (ICF, 2007b). Faculty from the Center for Creative Leadership (CCL) agree that “coaching is about helping people to effect behavioral change, not about giving them a how-to on accomplishing specific projects” (Ting & Scisco, 2006). These definitions of coaching seem to highlight its distinction from other practices, briefly contrasted below.

COACHING AND MENTORING

Coaching and mentoring are often used interchangeably, but there are distinctions. Typically, mentoring is more general and future-focused than coaching, concerned with ongoing support and longer-term professional relationships and career development. In contrast, coaching is more specific and focused on present and near-future performance, tasks, and development goals. In most cases, a mentor is someone outside the chain of command, whereas a direct supervisor often provides coaching in the workplace (Luecke, 2004). Coaches help protégés achieve mutually determined job-specific outcomes, whereas mentors pass along domain-specific expertise (Passmore, 2007), share personal experience (ICF, 2007b; Stone, 2004), offer their professional networks, and support upward career mobility (Dingman, 2004).

Some suggest that coaching is one critical aspect of mentoring, providing psychosocial support and vocational/career-enhancing activities ((Broitman, 2000; Hamilton & Scandura, 2003; Stone, 2004). Others simply consider coaching as a more directive form of mentoring (Winer, Rushby, & Vazquez-Abad, 1999). Passmore (2007) suggests that a coach serves two clients, the individual and the organization, while a mentor focuses more on the individual’s needs.

COACHING AND CONSULTING

The work of business coaches and consultants is often similarly focused around a partnership to improve individual and organizational performance. However, one main

distinction found in the literature is that consultants are typically hired for their specialized expertise in a given domain and expected to diagnose problems and provide advice and solutions, such as advice on business strategy, legal issues, and accountancy (Anthony M Grant & Zackon, 2004). In contrast, some suggest that a coach is often a non-expert in the client's technical domain, while highly skilled in the coaching process and discovery-based coaching techniques. Effective coaching is typically characterized by active listening, non-directive questioning, feedback, and monitoring progress in order to help the individual analyze and address his own challenges without offering direction and advice (Brockbank, 2006). The Worldwide Association of Business Coaches (WABC) contends that coaching uses a democratic approach characterized by collaboration, whereas consulting is more autocratic, emphasizing the coach's authority (WABC, 2007). The WABC also suggests that consulting, contrasted with coaching, involves communication which is predominantly one-way and the consultant is held accountable for the outcome.

COACHING AND COUNSELING

Coaching and counseling are similar in the way they provide psychosocial support, with counseling typically focused on more personal issues rather than work-related tasks. Coaching is primarily focused on the present and near-future, on professional growth and development, and the attainment of specific, actionable goals. Counseling, on the other hand, is mainly focused on resolving past dysfunction that is causing difficulties in an individual's well being (ICF, 2007a). Of course, some individuals may realize benefits from participating in both counseling and coaching together.

COACHING AND TRAINING

Coaching is sometimes considered a training technique for job skills development (Evered & Selman, 1989), a "one-on-one teaching of an individual or group by another individual or group" (Allen & Nawrocki, 2000, p. 242). Coaching uses many techniques that are based on theories and principles of motivation and adult learning, such as questioning, self-reflection, practice, observation, and feedback to improve self-efficacy and motivation, increase skills and knowledge, and modify attitudes and behaviors. Likewise, instructors use coaching techniques to facilitate reflection, persuade, motivate, build commitment and ownership (Lawton-Smith, 2007), and sustain and improve performance (Stone, 2004).

In an empirical case study, Rossett and Strayer (1994) examined the effectiveness of a blended training program involving coaching to boost sales performance for new real estate agents. The program included live classes with an instructor, self-paced learning modules, pre-work and "homework," a coaching guide to help brokers/managers coach and localize content during and after training, and tracking so brokers/managers could monitor agents' progress. Agents who completed the program showed a marked improvement in productivity (i.e., 33% more profitable) over agents who completed the existing onsite training program.

Traditional didactic approaches to learning typically involve goals and objectives that are established by the instructor who also directs the learning path and process. In contrast, coaching places more responsibility on the individual. Lawton-Smith and Cox (2007) suggest that "training will generally work towards pre-determined, objective areas of knowledge; whilst coaching is person-centred, helping define subjective answers to open questions where the answers could not have been predicted by the coach" (p. 8). In fact, coaching is parallel to contemporary, post-modern instructional approaches that require active participation from the learner and involve the instructor as more of a facilitator who guides the individual to create personal meaning and knowledge.

Coaching Activities

Coaching is a self-regulated industry. There are many training and certification programs for coaches, including fully-accredited PhD programs for coaches, but there are no established standards for coaching practice. Coaches come from various educational and professional backgrounds, offering diverse perspectives necessary to address a range of situational and individual needs. There are various frameworks and models used to guide the coaching process (Fillery-Travis & Lane, 2006; Wadsworth, 2001). For instance, one popular coaching model that has influenced coaching for many years is Sir John Whitmore's GROW model (Whitmore, 2002). The GROW model (Goal, Reality, Option, Will), based on principles from Timothy Gallwey's 1974 classic work, *The Inner Game of Tennis*, is used to guide the overall coaching process as well as individual coaching sessions. It involves setting goals, doing planned reality checks, discussing options for how to overcome obstacles and move towards goals, and having the will and choosing the way to move forward. IBM used the GROW model as part of its *Role of the Manager at IBM (RM@IBM)* blended

management development program that included workshops, e-learning, coaching, simulations, and online community (Morton, 2004).

The literature is beginning to reveal coaching behaviors that contribute to positive outcomes. Whether it is called coaching, consulting, or mentoring, the one-on-one process between coach and protégé is unique, private, and varies between and within each coaching relationship. Authors from the Center for Creative Leadership (Hernez-Broome et al., 2007) break coaching activities into four main sub-processes: *the relationship* (e.g., building and maintaining trust and rapport, motivating, encouraging, supporting), *logistics of the coaching session* (e.g., number, duration, frequency, and timeliness or responsiveness of sessions, session prep and closure including preparing an agenda, completing homework, and documenting the meeting), *program content or elements* (e.g., goal setting/contracting, establishing confidentiality, assessments, action planning, evaluating progress, and transitioning), and *tools and techniques* (e.g., active listening, questioning, feedback, promoting self-awareness and sustained learning). These processes are described below.

THE RELATIONSHIP

Some suggest that at the heart of coaching process is the relationship between coach and protégé that requires trust and effective communication -- without it, coaching cannot occur (Evered & Selman, 1989; Passmore, 2007). Typically, the relationship progresses through four main phases. During *initiation*, participants establish trust, guidelines, expectations, roles, authority, and demonstrate enthusiasm and commitment (Hamilton & Scandura, 2003; Olivero et al., 1997; Stone, 2004). Next, *relationship building* occurs (L. Wang, 2000), including pairing and initial contact (Dingman, 2004) and creating a non-threatening environment (Seamons, 2006; Wadsworth, 2001). The relationship is *cultivated* through encouragement (McLean et al., 2005), feedback, constructive criticism, two-way communication, personal involvement (Dawdy, 2004; Hamilton & Scandura, 2003), and addressing concerns and difficulties (L. Wang, 2000). Finally, *separation and termination* take place when the relationship no longer meets the needs of the protégé, because he or she has made sufficient progress or due to inadequate coaching support. Murray suggests that a no-fault agreement must be part of the policies and procedures and understood by all parties (Murray, 2001, p. 109).

When considering the significance of the coach-protégé relationship, it is important to remember that much of the coaching literature to date has focused on ongoing coaching, rather than just-in-time, task-focused coaching to support immediate performance. In either case, trust and credibility play a role in coaching and the learning process (Bandura, 1986; Sue-Chan & Latham, 2004; Yunjie, Hee-Woong, & Vitharana, 2004), and in the distribution of organizational knowledge through social networks (Kleiner, 2002). When coaching is more just-in-time or task oriented, perhaps the relationship carries less weight, and accuracy or immediacy plays a more significant role.

LOGISTICS OF THE COACHING SESSION

Logistics involves “facilitating the coaching arrangement” (Berry, 2006, p. 27) and managing administrative tasks such as contracting (Dingman, 2004), scheduling (L. Wang, 2000), session preparation, and wrap-up (e.g., preparing an agenda, completing documentation). Logistics also refers to the number, duration, and frequency of coaching contact (Murray, 2001; Stone, 2004), as well as the timeliness or responsiveness of coaching sessions to address emergent needs. Some of these logistic details may be determined before coaching begins, such as the total number of sessions in a given time period or the duration of the coaching engagement, or they may emerge as the coaching engagement progresses. In addition to the logistics of the session, logistics of the overall coaching engagement, includes decisions about compensation rates and schedules, whether the coaching engagement is individually or organizationally contracted, and whether the entire engagement will be open-ended or include a specific number of sessions or a closed-ended timeframe, and so on.

In their 2004 study of ICF members, Grant and Zackon (2004) found that half were full-time coaches, and a little over a third (34.5%) spent less than five to ten hours per week in actual coaching time with clients. They also found that typically, coaching engagements lasted more than six months (53%), with coaches meeting with clients three times per month (39%), each session lasting 30- to 60-minutes on average (59%). These data would suggest that the majority of coaches in this sample did not provide much coaching that was just-in-time or aimed at helping people with specific tasks.

PROGRAM ELEMENTS AND COACHING TECHNIQUES

The operation of individual coaching programs and sessions vary. However, several coaching elements and techniques are repeatedly described in the literature: goal setting, asking good questions and providing direction and feedback. These elements may be more or less formalized depending on the focus of the coaching engagement (i.e., skills, performance, or developmental focus) (Fillery-Travis & Lane, 2006; Anthony M Grant & Cavanagh, 2004).

When goal setting and action planning take place, coach and protégé work together to clarify goals, identify and analyze performance gaps, target opportunities for improvement, and then formulate an action plan to improve performance. Furthermore, a coach analyzes the individual in context and identifies potential obstacles and opportunities of which the individual may have been unaware. To support learning and performance, coaches might observe protégé's performance, monitor progress and acknowledge accomplishments, provide resources and opportunities for practice, encourage reflection, follow up to reinforce learning and improve transfer, and assess outcomes and results (Carter & McMahon, 2005; Dingman, 2004; Olivero et al., 1997; Stone, 2004; Wadsworth, 2001; L. Wang, 2000).

Coaches do many things to enhance the learning and performance environment. They ensure confidentiality and provide candid feedback, which some authors contend are essential to successful coaching processes and outcomes (Ellinger & Bostrom, 1999; Olivero et al., 1997; Passmore, 2007; Wadsworth, 2001; L. Wang, 2000). A coach, especially one who is external, can also provide a fresh, unbiased perspective on the situation without a conflicting agenda. Coaches may also provide psychosocial and emotional support, especially in longer coaching engagements (Olivero et al., 1997). For instance, a coach may inspire a protégé to keep going by demonstrating enthusiasm and providing frequent reminders about the value of expending effort towards desired goals (Carter & McMahon, 2005).

Some practitioners emphasize the importance of early intervention to address underperformance and excellent performance (Stone, 2004), stressing that feedback should be delivered "in the workplace as close to the event as possible," (Carter & McMahon, 2005, p. 53). For instance, on-the-job coaching is a tactical approach that occurs close to the work

to provide immediate intervention for poor performance or praise for excellence. On-the-job coaching and one-the-job training (OJT) differ slightly. According to Jacobs , OJT is used to develop new skills when “the trainee is altogether lacking competence to perform the task,” and involves “the planned process of developing task-level expertise by having an experienced employee train a novice employee at or near the actual work setting,” (Jacobs, 1999, p. 608). In contrast, on-the-job coaching is designed to reinforce skills, increase capacity around abilities that already exist, and help individuals overcome barriers to improving performance (Wadsworth, 2001).

Coaching can also be used in structured on-the-job training (OJT) when a manager or trainer uses real work tasks to systematically develop employee skills and abilities (Winer et al., 1999). The coach is someone skilled at training techniques who uses systematic knowledge of when and where to intervene in order to improve performance (Jacobs, 1999), and may not necessarily have “high levels of domain-specific expertise in the coachee’s chosen area of activity” (Anthony M Grant & Cavanagh, 2004, p. 11). This is in contrast to job shadowing, in which a “trainee” learns by working alongside a more experienced colleague who may not necessarily know how to intervene to improve performance.

Coaching Purposes and Functions

Organizations may use coaching for many reasons: to increase morale and motivation, to reduce turnover, to deliver help or expertise as needed, to ensure competency and knowledge transfer, or even as a perk to attract and retain top talent. Though coaching serves many purposes, topics, roles, and frameworks, it is typically categorized by two dimensions: the *target* of the coaching – the purpose of the coaching relationship and who is being coached; and the *coaching source* – the person delivering the coaching and whether that person is internal or external to the organization (Fillery-Travis & Lane, 2006). For instance, coaching may serve executives, managers, or line employees to develop specific skills, enhance immediate performance, facilitate longer term development and behavior change, or to transform an individual and the organization (coachingnetwork.org, 2007; Fillery-Travis & Lane, 2006; Anthony M Grant & Cavanagh, 2004; Winer et al., 1999).

Executives are most often the beneficiaries of coaching. Typically, executive coaching is provided for employees at the VP, CEO, or board level, receives the most

attention in the literature, and is growing in popularity for leadership development. It is often done by paid external coach/consultants with extensive training in coaching techniques and exposure to a variety of business issues (Hunt & Weintraub, 2007), some having served as former executives themselves (coachingnetwork.org, 2007).

Potential coaching topics are endless. A sales person might work with a coach to increase revenue or improve customer relations. An executive might enlist a coach's help around team building or change management. A university professor might be coached on teaching online. In business settings, common coaching topics include strategic planning, communication and presentation skills, people management skills including motivating and delegating, decision making, succession planning, conflict management and negotiation, project management, stress and time management, and achieving work/life balance (Branton, 2006).

BUSINESS COACHING

Business coaching is a more general term used to describe coaching offered to all employees, not just executives and senior management (WABC, 2007). Business coaching is aimed at achieving business results while balancing organizational and individual goals with the personal needs of individuals (coachingnetwork.org, 2007; WABC, 2007). In 2006 the Institute of Executive Development and Marshall Goldsmith Partners conducted a survey of more than 200 organizations across a variety of industries and found that "a small number of companies are currently engaged in coaching activities for all levels of management, and more plan to spend aggressively in the future" (Whitney, 2006).

COACHING TO ENHANCE TRAINING TRANSFER

Coaching can be used as a stand-alone strategy or combined with training to promote learning and development, improve performance, and boost organizational results. Wang (2000) defines coaching as "an ongoing, follow-up process designed to help the trainees effectively apply knowledge and skills learned in training and overcome the barriers to improve performance" (p.2). Coaching can be used before and after training to increase transfer by providing social and task support through guided practice, feedback, encouragement, modeling, and access to further examples and resources (Olivero et al.,

1997). It can also be used to persuade resistant employees to adopt some new organizational change (Brockbank, 2006). Before training, coaching might include learning contracts or pre-course assessments and assignments (Bates, 2000). As a post-training intervention, coaching can be used to reinforce skills and knowledge learned during training, and it may include the use of job aids, action plans, and/or strategies for overcoming resistance from colleagues (Bates, 2000).

Wang and Wentling (2001) found that post-training coaching had significant positive effects on transfer. They studied distance coaching provided to twenty participants for six months following a three-week face-to-face train-the-trainer workshop. They sent an e-mail survey to the twenty protégés measuring training transfer and perceived coaching success. Results showed that increased transfer was associated with certain coaching activities, primarily building relationships and providing resources, as well as perceptions about the coach's preparation, relationship with the coach, and encouragement from the coach. Through examination of communication logs, they found that coaching activities, particularly those having the greatest impact on transfer, occurred mostly through synchronous group chats (40%), followed by e-mails (31%), and asynchronous group discussion board postings (29%).

COACHING OUTCOMES

Grant (2007) and Fillery-Travis and Lane (2006) found empirical evidence that workplace coaching increased skills, self-efficacy, teamwork, leadership effectiveness, improved management behaviors, enhanced relationships, and improved organizational performance measured by sales figures, productivity, quality, and return on investment. In particular, there is empirical evidence that executive coaching works, described below.

Olivera, Bane, and Kopelman (1997) found that while training alone increased productivity among executives by 22%, training supplemented by coaching helped to improve productivity by 88%. Feggetter (2007) used self-report questionnaires, an ROI calculation, and follow-up interactions to examine the impact of an executive coaching program for ten "high potential" leaders in the Ministry of Defense. ROI calculations showed that the benefits outweighed the cost of the program, and participants reported satisfaction with the experience, improvements in their leadership skills, and job promotions that they

attributed to the program. Schlosser and colleagues (2006) also found that enhanced promotion/promotability was perceived as an outcome of executive coaching. McGovern and colleagues (2001) interviewed one hundred executives who reported that executive coaching resulted in positive outcomes for goal achievement and improved relationships with colleagues. In that study, participants also perceived executive coaching to have a positive effect on productivity, quality, and customer service, and return on investment.

However, executive coaching is not without its challenges. Often, executives don't have time for coaching sessions (Dagley, 2006), or have trouble finding the right coach (Thach & Heinselman, 1999). E-coaching may be able to expand the pool of coaches and make coaching more convenient and flexible for busy executives.

Coaching Sources

Coaches and their protégés may be employed by the same organization or not. *Internal* coaching typically includes coaching from managers, peers, workplace learning professionals, subject matter experts (SMEs), or even self-coaching. *External* coaching is mostly done by professional coaches but may also include coaching from instructors, SMEs, or peers. Some studies show that organizations use internals more often than externals. Fillery-Travis and Lane (2006) reported on Kubicek's 2002 School of Coaching survey of 176 senior HR managers in the UK. That study found that 79% of organizations used manager coaches, 41% used trained internal coaches, and about half (51%) used external coaches. Another recent survey of approximately 300 organizations conducted by the Institute for Corporate Productivity reported that over two-thirds (68%) used internal coaches (Pernula, 2007). However, as the demand for more targeted skills coaching rises and surpasses the availability of internal and manager-coaches, external coaches are increasingly filling this role. Various coaching sources present their own benefits and drawbacks as described below. In many cases, e-coaching may be able to overcome these barriers.

EXTERNAL VERSUS INTERNAL COACHES

External coaches, typical in executive coaching, offer an objective perspective, expertise, and have the advantage of being seen as unbiased, less threatening, and less affected by internal politics. External coaches may be particularly useful for organizations lacking a solid in-house leadership development program, such as small or start-up

companies (Thach & Heinselman, 1999), and in situations that call for extreme confidentiality (Hall, Otazo, & Hollenbeck, 1999). In some cases an external coach, perhaps an external domain expert, may be brought in to support a specific task or performance area. Sue-Chan and Latham (2004) found that external coaches were perceived as more credible than peer coaches, and this perceived credibility can increase the protégé's satisfaction and performance. On the other hand, internal coaches have more knowledge of the organizational context and culture and can sometimes be more cost-effective for the organization (Hunt & Weintraub, 2007).

MANAGER AS COACH

Clearly, managers play a central part in learning and performance (Bates, 2000; Evered & Selman, 1989), serving as leader, teacher, facilitator, counselor, mentor, and coach (Ellinger & Bostrom, 1999; Luecke, 2004). The 2007 annual report on learning and development from the UK's Chartered Institute of Personnel and Development (CIPD) highlights the line manager's role in supporting workplace learning and development, particularly through coaching (CIPD, 2007; Fournies, 2000). Out of more than 650 training and development managers participating in the study, two-thirds felt that coaching was *primarily* (22%) or *somewhat* (45%) the manager's responsibility. A large majority of respondents (76%) reported that their organizations *occasionally* or *frequently* use coaching by line managers, and most (73%) expect that amount to increase.

Studies have shown that manager support (Foxon, 1997), particularly ongoing managerial coaching (Bates, 2000), is critical to the transfer of learning. Managers communicate clear expectations, provide timely and specific feedback, broaden employees' perspectives, discuss problems and find solutions together (Hamlin et al., 2006), and ensure adequate resources and minimal obstacles (Ellinger & Bostrom, 1999; Wadsworth, 2001).

In comparison to other coaching sources, some suggest that manager-coaches are particularly effective because they are job and task oriented (Anthony M Grant & Cavanagh, 2004; D. Leonard & Swap, 2005), and because they are best positioned to identify and develop high-potential employees (Hunt & Weintraub, 2007). Others suggest that managers may not require the deeper coaching expertise necessary for more developmental or transformational coaching (Fillery-Travis & Lane, 2006). Some argue that coaching should

not come from someone in the chain of command. For instance, Murray (2001) suggests that skipped-level pairings can prevent potential competition and that cross-functional pairings provide broader perspectives.

INSTRUCTOR AND WORKPLACE LEARNING PROFESSIONAL AS COACH

The role of instructors is shifting. The conventional view is that instructors deliver instruction. Now that expectation has broadened to including support for learning and performance at work (Wadsworth, 2001). Instructor-coaches facilitate learning (Ensher et al., 2003; McLean et al., 2005) through the use of analogies, scenarios, and examples and by observing performance, providing feedback, connecting to resources (Ellinger & Bostrom, 1999). It is also becoming necessary for other workplace learning professionals to assume a coaching role (ASTD, 2007) as many organizations have not yet established sufficient in-house coaching capability (Hunt & Weintraub, 2007). In fact, ASTD now offers a coaching certificate targeted for workplace learning professionals.

SUBJECT MATTER EXPERT AS COACH

A subject matter expert (SME) is one perceived as having credibility and authority in a particular domain. Some argue that a coach should be a SME in the domain for which he or she is coaching (coachingnetwork.org, 2007). According to social psychology theories, authority and credibility affect the ability to persuade another person and influence their response to feedback (Sue-Chan & Latham, 2004). Furthermore, Passmore (2007) asserts that the coaching literature “confirms the perceived value by coachees of sector and business knowledge to both enhance credibility and also to deliver high value” (p.15). Thus, a SME coach may be even more effective at influencing behavior change in the protégé.

PEER COACHES

Peer coaching is defined as a situation in which “colleagues coach and support each other in a non-threatening, egalitarian relationship in order to achieve mutual growth and personal and professional development” (Bettridge, 2007). Peer coaching is often used as a form of on-the-job learning, as members of work teams coach each other or a more experienced colleague coaches a relative novice, and can be used to address emergent needs

just-in-time (Doyle & Hughes, 2004; Hunt & Weintraub, 2007). Some contend that coaching from peers is useful because they are closer to the protégé in terms of level of expertise, skills, knowledge, and experience, and thus better attuned to the relevant situational cues (D. Leonard & Swap, 2005). Theories from social psychology and diffusion of innovation (Rogers, 1995) suggest that peers who are perceived as like-minded or considered opinion leaders are especially influential (Sue-Chan & Latham, 2004). Others raise concern about the effectiveness of peer coaches who lack coaching expertise. Studies by Spence and Grant (Spence & Grant, 2007) and Sue-Chan and Latham (2004) found that peer coaches were perceived as less credible than external coaches and that peer coaching was less effective than external expert coaching. Perhaps peers are seen as having less authority or perceived as having questionable intentions in situations where job security is a concern.

SELF-COACHING

Many organizations are attempting to create a learning culture and encourage self-development by empowering employees to take charge of their own professional development (Bagshaw & Bagshaw, 2002). To enhance their own performance, confidence, and decision making abilities, individuals can use coaching resources designed to support self-coaching techniques such as goal setting, self-persuasion (Sue-Chan & Latham, 2004) and metacognitive skills. For example, Rossett and Shafer (2006) present the concept of a “planner” performance support tool that supports self-coaching by giving individuals ideas and perspectives to consider when behaving ethically, planning a presentation, or closing a sale. Increasingly, e-mail, intelligent computer applications, and mobile technologies are being used for self-coaching and performance support, discussed further in the section on e-coaching technologies.

Factors That Affect Coaching Success

Reports have illuminated the factors that drive successful coaching experiences, including *coach and protégé characteristics* (e.g., attitudes, abilities, age, prior experience, expectations, self-efficacy, and motivation) (Boyce, Jackson, & Neal, 2007; Spitzer, 2005), the *coaching process* (logistics, the relationship, program content, tools and techniques) (Hernez-Broome et al., 2007) and the *organizational environment* (Ford & Weissbein, 1997; Holton III, Chen, & Naquin, 2003). These factors are described below

COACH-PROTÉGÉ CHARACTERISTICS AND PAIRINGS AS A FACTOR

Especially in an ongoing coaching engagement, empirical and anecdotal evidence suggests that a successful coaching relationship requires compatibility between coach and protégé (Boyce et al., 2007; Bush, 2004; Seamons, 2006). Previous experience, level of readiness, motivation, personality, communication and work styles, background, and areas of interest are all possible factors to consider when pairing coaches and protégés, and the more these are aligned, the better. For example, client traits should include *client adherence* – a willingness and commitment to engage in coaching (Bush, 2004; Seamons, 2006). Effective coach traits include frankness, respect for the client, positive and caring attitude, and responsiveness.

While coaching pairs may be assigned or voluntary, some suggest that voluntary pairing is most effective (D. Leonard & Swap, 2005; Murray, 2001). Increasingly, software applications are being used to match coaching and mentoring pairs based on shared traits, and some researchers are exploring the use of “best fit” compatibility scores such as those used by the relationship website eHarmony.com. E-matching is used by DOW Chemical (Tahmincioglu, 2004) and the United States Air Force (Boyce et al., 2007). In a study of a leadership program for United States Air Force Academy cadets, Boyce, Jackson, and Neal (2007) found high correlations between coach-cadet compatibility scores and cadet satisfaction, program outcomes, and the likelihood of participating in the future.

COACHING PROCESS AS A FACTOR

In two separate studies of executive coaching, Bush (2004) and Seamons (2006) found that success factors included a structured coaching process focused on the client’s development, insight through feedback, and the creation of a reflective/developmental space (i.e., a non-threatening, open atmosphere which encourages growth). Hall, Otazo, and Hollenbeck (1999) found that a coach’s accessibility and availability were perceived by executives as important factors in coaching success. Regarding logistics, Berry (2006) found that the number of coaching meetings had no effect on the working alliance (i.e., trusting relationship) between coach and client. However, Thach (2002) found a positive relationship between increases in leadership effectiveness and the average number of times the executive met with the coach. Some suggest that it is best to keep the duration of the relationship

flexible and driven by the protégé's needs (i.e., development objectives and type of skill to be learned and practiced) (Murray, 2001). Certainly, having access to multiple communication channels through e-coaching would effect when, where, how, and how often coaching happens.

ORGANIZATIONAL FACTORS

Just as it is for any learning and performance intervention, coaching efficacy is affected by the organizational culture (Ford & Weissbein, 1997; Holton et al., 2000). These include perceived supervisor support, peer support, rewards for practice, follow-up evaluations, manager involvement, policies, selection practices, and communication (Hatala & Gumm, 2006). For long-term success, coaching should be offered as part of a more comprehensive human resource development process and aligned with business goals and needs (Murray, 2001). Stone (2004), Hamilton and Scandura (2003), Murray (2001) and others suggest the organizational factors associated with successful coaching:

- *Culture* that values continuous learning and recognizes and rewards success.
- *Active participation* by the manager or team leader in planning and evaluating the coaching process, if not directly providing the coaching themselves.
- *Communication* to managers and employees regarding the what, why, and how of the program. Communication could include criteria for participation, policy about development activities on company time, guarantees and/or rewards for successful protégés, how the coach is rewarded, and how to address a bad situation.
- *Infrastructure* to coordinate, manage, and oversee the program including clear policies and procedures, pilot testing of the program, a system for pairing coach with protégé, and ongoing facilitation and mediation for coaching pairs as needed.
- *Training and support* for protégé, coaches, and program coordinators, including comprehensive orientation focused on goals, roles, process, and success factors.
- *Evaluation* component including criteria and plan for measuring effectiveness through pre- and post-assessment; Results are measured, compared to baseline data, and linked to business goals.

Two of the most crucial factors for coaching success include line manager support (Seamons, 2006) and sponsorship of coaching at the top (Anonymous, 2004b; Ellinger & Bostrom, 1999; Williams & Offley, 2005). Using a case study approach to examine factors that facilitate success executive coaching, Seamons (2006) interviewed eight triads (i.e., coach, client, client's boss) and found that support from the client's boss was perceived as the single most important factor in coaching success.

Barriers to Traditional Coaching

While the coaching industry is growing, and coaching is more widely available in organizations, why does it remain underutilized (McLean et al., 2005; Pernula, 2007; Sugrue & Rivera, 2005)? Perhaps face-to-face coaching, though more flexible than classroom instruction, restricts participation due to limitations about when and where coaching occurs (Hamilton & Scandura, 2003).

Many challenges come from the creation of coach-protégé pairings. Barriers such as organizational hierarchies and geographic locations may limit access to a sufficient pool of coaches. The rising popularity of telecommuting, virtual teams, job-sharing, and alternative work schedules increasingly reduces the chances to form face-to-face coaching/mentoring relationships (Hamilton & Scandura, 2003). Individual or interpersonal issues related to gender, minority, rank, and status could impede the formation of coaching relationships due to real or perceived fear, intimidation, or lack of social skills. Organizational barriers include fear of losing control over employees by empowering them and determining how to provide the coaching necessary to meet the demand for all employees across the organization (McLean et al., 2005).

In particular, manager-coaches face challenges. In many cases, a single manager does not have time to provide coaching to all her reports. Coaching requires significant changes in a manager's role that can cause conflict with other roles. The organizational climate may not reward managers for developing employees and may not provide them the necessary time and resources to develop coaching skills (McLean et al., 2005). One solution is to use external coaches or specialized internal coaches rather than managers, favoring the provision of guidance and immediate support over relationships.

In a report on innovations in coaching and mentoring cited by Williams (2005), lack of time was the biggest barrier to successful coaching. Likewise, Dagley (2006) interviewed seventeen HR professionals responsible for more than 1000 executive coaching programs about their perceptions regarding the programs' efficacy, benefits, and challenges. The two most common challenges reported were executives not having time for coaching sessions and the high cost for these programs. Regarding cost, in her survey of one hundred coaches who provide executive as well as life coaching, Berry (2006) found a significant difference between hourly rates for face-to-face (mean=\$159 per hour) versus distance coaching

practices (mean=\$126 per hour). The next section discusses how e-coaching can address many of these barriers to coaching by increasing access to expertise and feedback and making coaching more convenient and cost-effective (Vail, 2003).

E-COACHING

Technology is transforming many professional services that have traditionally relied on one-on-one, face-to-face interactions. This trend is evident in telemedicine, telepsychology, e-counseling, virtual mentoring, and e-coaching (Hernez-Broome et al., 2007). For years, coaches have regularly used the phone with clients, now adding computer-mediated technologies as a way to enhance, extend, or replace face-to-face coaching, or to transform the coaching experience all together. Barbian (2002) contends that "Coaches hoping to remain relevant in the networked world need to bridge the physical workplace with the online environment."

Indeed, e-coaching is on the rise. In their 2004 study of International Coaching Federation members, Grant and Zackon (2004) found that over half of the respondents (64%) reported using electronic means for coaching *at least some of the time*. Data showed that nearly twice as many coaches use the phone (63%) versus face-to-face meetings (34%) as their primary means for conducting coaching sessions, with a small percentage (1.4%) primarily using e-mail for coaching. Several online consulting companies provide e-coaching services: Advantage Coaching and Training and EMCI offer telephone coaching; Executive Coaching Studio provides coaching solutions online, in person, or via telephone; Peyton Investments provides executive coaching in person, or via telephone, e-mail, or instant messaging.

E-coaching offers tools for synchronous (real-time) and asynchronous (time-delayed) communication, interaction, and reflection (Headlam-Wells et al., 2006). E-coaching may be used alone or as part of a blended learning program. For example, in a leadership development program implemented in 2007 at Xerox, participants started with a webinar (i.e., web-based seminar) followed by a three-day face-to-face program that included a two-hour one-on-one session with an executive coach and ended with the creation of a development action plan. Then, during the following three months, participants collaborated

on work projects in virtual teams and had two individual calls with their executive coach (Pulley, 2007). Results had not been published at the time of the present study.

While e-coaching is gaining popularity, there is limited empirical evidence about e-coaching efficacy or how technology is used most effectively for it (Hernez-Broome et al., 2007). In this section, the researcher presents what is known including e-coaching definitions, tools and technologies used for e-coaching, purposes and benefits of e-coaching, and factors that influence the effective use of technology for coaching.

Definitions of E-Coaching

Hernez-Broome, Boyce, and Whyman (2007) define e-coaching as “a two-way communication between a coach and coachee that is enabled through the use of technology, particularly computer-mediated communications (CMC) such as e-mail and online chat or threaded discussion” (p. 6). Hamilton and Scandura (2003) define electronic coaching and mentoring as coaching in which the *primary* interaction is virtual, so that “the foundation of the mentor-protégé relationship rests on a different type of interaction than that found in traditional mentoring” (p. 388). Ensher, Heun, and Blanchard (Ensher et al., 2003) provide a useful framework for categorizing three levels of CMC-enabled mentoring which is applicable to coaching: *CMC-Only* with no face-to-face or telephone interaction, *CMC-Primary* in which more than fifty percent of interactions occur via CMC, and *CMC-Supplemental*, in which a majority of interaction takes place in person, supplemented by telephone, e-mail, and other CMC technologies. A common element in all of these definitions is that e-coaching involves human interaction. In her definition of e-coaching, Berry (2006) argues that coaching must involve “a unique, customized relationship between two individuals” and that “some level of individual, personalized contact is necessary for coaching to have occurred” (p.27).

For the purposes of the present study, the researcher is defining e-coaching as coaching that is conducted partially or entirely at a distance, by phone, e-mail, or other computer-mediated communications (CMC), alone or in combination with face-to-face coaching, for purposes other than scheduling appointments and completing administrative tasks. The researcher presents a broad and inclusive definition of e-coaching that takes into account tools and resources that coaches use with their protégés for instructional and other

purposes to support the coaching process. Furthermore, this broad definition of e-coaching also considers CMC tools and resources that individuals use to support self-coaching – a type of coaching that does not involve a relationship between two individuals, contrary to Berry’s (2006) assertion.

E-Coaching Tools and Technologies

E-coaching involves technologies, alone or in combination, with or without face-to-face contact, to enable, enhance, or altogether transform the coaching experience (Bonk & Graham, 2005). E-coaching technologies consist of integrated telecommunications and multimedia systems that can enable synchronous and asynchronous communication through ordinary telephone lines and high-speed cable connections to desktop devices, or wirelessly through cell phones and other portable mobile devices (Gunawardena & McIsaac, 2004).

There is an extensive body of literature and many theories regarding computer-mediated communication (CMC) and computer-supported collaborative learning (CSCL) environments, a thorough discussion of which is beyond the scope of the present study. However, theories of media-richness (Daft & Lengel, 1986) and diffusion of innovations (Rogers, 1995), presented earlier in this chapter, clearly support the assertion that CMC tools offer affordances (i.e., perceived action possibilities or capabilities) that make some technologies better suited for particular communication and coaching purposes than others (Berry, 2006). The following discussion presents various CMC technologies, including benefits and drawbacks for coaching, organized into synchronous (real-time) and asynchronous (time-delayed) tools.

SYNCHRONOUS TOOLS

Synchronous tools support live or “real-time” two-way communication between two or more remote individuals (Gunawardena & McIsaac, 2004). The telephone is the most common synchronous communication tool. Today, synchronous CMC technologies have become sophisticated and highly interactive, combining text, live audio, live video, and even 3D and 4D graphics to create rich multidimensional and multisensory environments to support learning and knowledge transfer (Singh, 2003). Various configurations of synchronous CMC tools allow users to hear and see each other, collaborate, and share resources. Synchronous coaching tools provide benefits such as immediate feedback and

greater opportunity for spontaneity and discussion, as well as the ability to schedule a dedicated and focused period for coaching. Limitations include scheduling challenges, the potential for technical difficulties, and reduced opportunity for reflection (Pulley, 2006). Several synchronous tools are described below.

Telephone

As discussed earlier, a large majority of coaches in Grant and Zackon's study (2004) reported using telephone as their primary means for coaching. Clearly, the telephone is a very familiar, comfortable, convenient, and effective distance communication tool for coaching, though it lacks visual and other contextual cues of face-to-face meetings. Phone conversations can be used to build rapport and a sense of confidentiality (Olson, 2001). Nine out of ten executive coaches in Charbonneau's study provided some telephone coaching (2002) and found it useful for promoting consistency and accountability and for providing follow-up, encouragement, and attention to emergencies. With teleconferencing, several people can converse simultaneously for real-time meetings, distance collaboration, and coaching sessions.

Desktop Video and Audio Conferencing

Video conferencing allows people who are in remote locations to hear and see each other and to view 3D objects and live action (Gunawardena & McIsaac, 2004; Pulley, 2006). Traditional video conferencing technologies are quite reliable, though expensive, and have typically involved a dedicated videoconferencing environment and specialized equipment, similar to traditional teleconferencing systems. Today, Internet-based desktop audio and videoconferencing via fast Internet connections have become widely available as a more flexible and affordable alternative. Participants use a microphone connected to their computers to conduct one-way or two-way communication through web-based applications that support "voice over Internet protocol" (VoIP), enabling them to make inexpensive or free long distance calls via the web. Webcams provide a relatively inexpensive and easy to use way to conduct desktop videoconferencing, adding a rich human touch to distant coaching which could be used to observe performance, provide feedback, and conduct role playing or demonstrations.

Live Text Messaging

Live text chat, instant messaging (IM) and short-text messaging (SMS) are real-time text-based communications that can be used through a desktop or laptop computer, a cell phone, personal digital assistant (PDA) or other mobile device that is connected to the Web ("Instant messaging," 2007). "Texting" allows quick, efficient, private, and less formal communication between multiple parties at once, and has more of a conversational, spontaneous feel than asynchronous e-mail. For e-coaching purposes, a protégé might send a text message to get just-in-time advice from the coach, and a coach might send a text message to provide answers, reminders, or encouragement.

WEB-CONFERENCING

Web-conferencing is an online collaborative work environment often used to conduct online courses, meetings, presentations, and seminars (i.e., "webinars") in support of e-learning, online communities, and virtual work teams, using tools such as *Connect*, *Live Meeting*, *Centra*, *Illuminate*, *Wimba*, and *WebEx*. Web-conferencing applications can incorporate multiple real-time CMC tools such as text chat, voice (i.e., VoIP), live video through a web-camera (i.e., webcam), viewing presentation slides, using whiteboards and annotations (e.g., allows users to draw and type on a shared screen or on the slides), recording for playback at a later time, screen and application sharing (e.g., where participants can see what is on another person's screen and even manipulate it remotely), and surveys and polls ("Web conferencing," 2007). Thus, these rich multisensory and interactive systems offer many advantages over teleconferencing or video-conferencing alone. Coaches might use web-conferencing to conduct scheduled coaching sessions or to make themselves available for drop-in "virtual office hours."

Virtual Environments

Virtual reality (VR) and simulations combine computer-generated graphics, motion, and massive amounts of dynamic data in real-time to offer experiences that would be otherwise too dangerous, expensive, or time-consuming (Gunawardena & McIsaac, 2004). VR is typically done through a three-dimensional (3D) visual experience and sometimes involves haptic force feedback systems. For instance, VR systems might be used to train

surgeons or pilots. In the workplace, some claim that the next stage in the evolution of virtual work involves 3D immersive virtual worlds.

In 2003, Linden Labs, a San Francisco-based company, launched such a web-based 3D immersive virtual world called Second Life (SL) that combines physical simulation, 3D modeling, a complete economy and social system, and recently adding audio. SL is a real-time collaborative environment where users create “avatars,” or virtual reality characters, that they use to visit various locations and interact with content and other participants. Not only do people use SL for entertainment and online socializing, university professors are holding class in this virtual space in architecture, game design, rhetoric and writing, sociology, educational technology, design and media studies (Anonymous, 2004a). Many large companies such as IBM, Sears, and Coca-Cola, have created their own meeting spaces in SL where employees can work collaboratively with colleagues and clients. For instance, the staffing firm, Manpower, has set up an “island” (i.e., location) in SL where they provide coaching for job hunting and resume writing (Kitchen, 2007).

ASYNCHRONOUS TOOLS

Asynchronous coaching tools are time independent; participants can use them at their own convenience without relying on others’ schedules. Below is a description of e-mail and online discussion forums for coaching, which provide many benefits including greater opportunity for reflection (Dennen, 2004), increased sense of anonymity and openness, and the ability to save a record of transactions for review.

E-mail is a lean text-based medium that lacks non-verbal cues. In many studies of distance professional partnerships such as telemedicine, e-coaching, and virtual mentoring, e-mail is the second most widely used distance communication tool behind telephone (Anthony M Grant & Zackon, 2004). It is a cost-effective and convenient tool that coaches can use to set expectations, provide guidance about the coaching process, and nurture the ongoing relationship (Israelite & Dunne, 2003). Several executive coaches in Charbonneau’s study (2002) felt that coaching by e-mail was more confidential and private than meeting face-to-face.

An online discussion forum is a text-based system where message are posted by individuals, organized chronologically, and linked to form a continuous chain of

asynchronous written communication. In Wadsworth's study of post-training online coaching (2001), participants used a discussion forum for feedback, group work, sharing resources, reporting progress, and building social connections. A discussion forum is more likely to be used for team coaching or among groups of peers, as in the Wadsworth study, since it supports many-to-many communication (Gunawardena & McIsaac, 2004).

COACHING SYSTEMS

Coaching and E-Learning

Technology can be used to support self-coaching by combining personal coaching and aspects of web-based training. For instance, *Your e-Coach: The Art of Leading Yourself* (Berg & Noyes, 2007) is an online coaching program and self-development tool based on the principles of emotional intelligence and executive coaching practice. The program uses interactive e-learning modules that present content and ask the user to enter personal goals, values, and other information. On a regular basis, the program sends follow-up e-mails that guide users to practice what they have learned and remind them of their choices, goals, and values that they entered during the online modules. According to the program website, Norway's largest financial services group, *DnB NOR*, is using *Your e-Coach* to make coaching available to their employees.

Online Coaching Platforms

Online systems designed especially for coaching, such as Mentornet, MicroMentor, and coachingplatform.com, provide online systems that can be used by coaches and organizations to match coaches with protégés and to facilitate coaching engagements. The Ken Blanchard Companies offers *Coaching.com*, where credentialed coaches provide services supported by a proprietary Web-based platform (Olson, 2001). Coaches can use these online platforms to administer learning style and preference inventories (Pulley, 2006), interpret performance assessments and feedback reports, develop and document goals and action plans, track progress, and send follow-up reminders about pending and completed actions. As opposed to paper-based forms, online assessments save time by providing automated scoring and instantaneous results. The California Public Employees' Retirement System (CalPers) uses this type of system to provide coaching by telephone and e-mail as a

way to help employees realize desired performance improvements that are targeted as part of a 360 degree feedback tool (Karrer & Gardner, 2004).

The Center for Creative Leadership (CCL) offers a Leadership Development Program (LDP) ® that involves pre-work and assessments, a one-week onsite workshop that includes a four-hour face-to-face session with a CCL feedback coach, and goal setting on the last day, ten weeks of online follow-up, and reflections 90 days afterwards, as a post-measure of behavioral change (Whyman, Santana, & Allen, 2005). The web-based follow-through management system is called *Friday 5's*, developed for CCL by the Fort Hill Company. The system prompts protégés via e-mail every other Friday to spend five minutes to update their goals, report progress, and complete assessments regarding individual and organizational impact. The system also provides online resources including guidance on action items and communication tools so participants can connect with others from the LDP program, share their goals with their managers and colleagues, and receive online coaching from their CCL feedback coach.

Performance Support Tools That Coach

Must coaching include human contact, as some insist? Or, can it involve self-coaching with support from “coaching” type cues and messages from electronic performance support systems (EPSS) and job aids designed by humans, based on human coaching models, but without human involvement to deliver coaching? For instance, Fogg (2002) coined the term “CAPTology,” (i.e., computers as persuasive technologies) to describe an area of inquiry that explores how computers can be used to persuade, motivate, and influence behavior change. Using an expanded definition of e-coaching, computer-based systems could help individuals self-coach by nudging performance, persistence, and follow-through on goals.

There are several examples of EPSS tools and resources that support self-coaching. Doctoral students working on their final dissertation projects can receive automated coaching by subscribing to an e-mail newsletter from “the all-but-dissertation survival guide” (Dean, 1999). In the workplace, call center agents who use computer-based telephone systems receive real-time automated coaching. Using speech-recognition technology, the system listens to agents as they handle customer calls and provides reminders (e.g., “please verify

address before proceeding”) as well as feedback (e.g., “good job”) through the headset. This type of system allows agents to take corrective action on the spot and thus increase call quality and customer satisfaction (Fluss, 2006). Accenture has developed a coaching application that runs on a smart phone (i.e., a cell phone and hand-held computer all-in-one) to improve conversational and listening skills (Blakely, 2007). The user enters a specific goal, and the device monitors behavior, in this case how much the user is talking or interrupting during a conversation, and compares the observed behavior to the goal. A report can be generated at the end, but more interestingly, the device can provide just-in-time performance feedback through an ear piece. For instance, if the user is talking and interrupting too much, the program advises to “talk less.” FRED, another software application, serves as a personal learning coach. FRED has the employee enter his task and interest profile and then recommends a set of personalized course offerings (Smolle & Sure, 2002). Some online help systems provide wizards and coaches which coach novice users through typical tasks (Weber, 2004).

E-Coaching Benefits and Challenges

Work is becoming increasingly complex, particularly for knowledge workers and leaders, requiring individuals to continuously seek new strategies, perspectives, and resources that move them beyond their current capabilities. Furthermore, workers are becoming more mobile and dispersed, requiring cost-effective learning and performance interventions that are not tied to geography (Pulley, 2007).

BENEFITS OF E-COACHING

Empirical studies, anecdotal evidence, and practitioner enthusiasm suggest that e-coaching is an effective, low-cost performance and development tool (Bierema & Hill, 2005; Ensher et al., 2003). For example, at KPMG International, a tax and business consulting firm, managers reported significant increases in productivity that they attributed to the e-coaching they had received (Barbian, 2002). E-coaching helps coaches and clients maximize opportunities for contact, despite challenges from geographic distance, scheduling, and competing demands.

Bagshaw and Bagshaw (2002) suggest that e-coaching success should be judged by how well goals are achieved, rather than comparing it to face-to-face coaching. Certainly,

each modality has its advantages. Whereas some benefits of face-to-face coaching are lost in e-coaching, the latter provides opportunities not afforded by face-to-face contact. Successful e-coaching involves choosing the appropriate tool based on the desired outcomes and the unique characteristics of the intended audience and circumstances. The benefits of e-coaching are presented below.

Greater Flexibility

E-coaching provides more flexibility in maintaining open communication because there are more options for how, when, how often, and between whom communication takes place. E-coaching may allow coaches to become more accessible to their clients, without time and geographic constraints, which is perceived by protégés to lead to successful coaching experiences (Hall et al., 1999). Without time zone and scheduling constraints or wasted time on travel and coordination, e-coaching programs can be easier to manage (Bierema & Hill, 2005) and grant more hours for meeting or interacting (Hamilton & Scandura, 2003; Stone, 2004).

Enhanced Coaching Pool

E-coaching opens access to a larger, more diverse pool of coaches. It provides opportunities for someone other than a manager to provide coaching, allowing organizations to connect employees with expertise and experience quickly and affordably, either within or outside the organization. It increases the opportunity for voluntary coach-client pairings which have been shown to produce the highest satisfaction ratings by protégés (Hamilton & Scandura, 2003). And because e-coaching is not bound by time or place and is less reliant on the social constraints of face-to-face interaction, pairings can be based more on compatibility and less on other traits related to demographics, location, or ease of access (Stone, 2004). E-coaching can also increase cross-cultural connections (Bierema & Hill, 2005), useful in a global economy.

Social Equity

With e-coaching, there is an increased emphasis on shared values rather than shared traits, demographics, and status (Hamilton & Scandura, 2003; Wainfan & Davis, 2004). Some distance communications technologies can make power and status harder to detect and

thus reduce “social distance” (J. S. Brown & Duguid, 2000). This can occur because technologies that rely on text are less influenced by visual cues, individual characteristics, and social biases that disproportionately hinder minorities. In some ways, “operating blind” at a distance helps people avoid making hasty judgments based on appearance or other superficial characteristics. E-coaching may be especially beneficial for women in fields that are often considered non-traditional for them. Single, Muller, Cunningham, Single, & Carlsen (2005) describe the possibilities for female engineers, and Fielden & Hunt (2006) elaborate on a program for female entrepreneurs.

Support for Teleworkers

Teleworkers can feel isolated, and supervisors who are charged with managing remote employees can use e-coaching to help them feel connected, support their performance, increase effectiveness, and promote ongoing professional development (Feldman, 2002). The internal coach can be an important liaison between the organization and the teleworker, sharing information about the work team as well as any changes in the organizational structure or policies.

More Integrated with Work for Immediate Feedback

Carter and McMahon (2005) suggest that feedback integrated into the work is essential for sustaining and improving performance. E-coaching allows managers, instructors, and other coaches to provide immediate, regular, frequent, and informal on-the-job feedback.

Ability to Achieve Greater Insights

E-coaching may uncover insights untapped in face-to-face coaching relationships. (Hamilton & Scandura, 2003) noted that distance communications tools may facilitate more candid and objective feedback due to their ability to increase the sense of anonymity and openness. Asynchronous communications can provide increased opportunity for deliberate and thoughtful exchanges (Bierema & Hill, 2005).

In some cases, e-coaching might be even better than being there. CMC technologies can “turn communication into substance” (p.323, citing Dillenbourg, 2005), allowing users to

create a persistent digital record of interaction and collaboration to be used as a resource for reflection and reference. A protégé might save and refer back to text exchanges from e-mail or text chat sessions or review audio and video clips of coaching sessions to revisit a concept or get a boost of encouragement. A coach might create a generic message to distribute to several clients in the form of an e-mail message, video-gram, or audio podcast.

Scalability and Consistency

Traditional coaching can be idiosyncratic, whereas e-coaching allows organizations to provide consistent coaching processes and resources across the organization, not just at an individual level (Barbian, 2002; Olson, 2001). Technology makes it easier to track and measure return on investment (ROI), and online resources can serve as performance support for e-coaches and their clients as well. Furthermore, recording and archiving selected messages enables consistency on a wide scale.

CHALLENGES OF E-COACHING

Some coaching activities may be awkward, difficult, or impossible at a distance no matter the technical fidelity (Suthers, 2006). Some learning might require implicit contextual information, gestural cues, or coordinating physical action. Other interactions are best supported by a warm smile or even pressure such as a supportive tap on the shoulder. Two challenges for e-coaching are establishing trust and communicating effectively at a distance, discussed below.

Establishing Trust

Building a trusting relationship is crucial to the coaching process. In Charbonneau's study of executive coaching, eight out of ten clients felt that a trusting relationship was essential and could only be built face-to-face, at least initially (2002). Some agree that e-mentoring relationships should always begin with a "live" meeting, but suggest that "live" meetings can be accomplished in person, by phone (Purcell, 2004), or even through video conferencing (Headlam-Wells et al., 2006). In fact, Berry (2006) reviewed the literature regarding the impact of distance versus face-to-face communications on the formation of the therapeutic working alliance between coach and client (i.e., a personal/professional relationship including trust and agreement on goals and tasks) and found equivalent

outcomes regardless of whether communication was face-to-face or via videoconferencing or speakerphone. In fact, in some cases, it is desirable for clients to meet with coaches outside of the workplace to increase confidentiality, which could be done in person or through e-coaching.

Communicating Effectively at a Distance

Some feel that e-coaching lacks the spontaneity of face-to-face communication due to lag time which can decrease enthusiasm, momentum, and motivation. This might be changing, however, as the latest mobile and on-demand technologies can make distant communications spontaneous (Stone, 2004). E-coaches must plan how they will keep connected to the protégé. This can be done by scheduling regular communication and by agreeing upon a communication strategy that clarifies expectations about the best channels and turnaround time. E-coaches must discern the client's comfort level with technology and the written word if e-mail and other text-based means will be relied upon.

Furthermore, e-coaches must do everything possible to avoid miscommunications. At a distance, there is an increased importance of letting the person know that they've been heard (Feldman, 2002). Coaches must be explicit about roles, boundaries, and expectations, and they must make extra effort to verbalize their reactions and ask more questions to get their protégés to do more verbalizing (Pulley, 2006). They must prepare for coaching interactions and be clear about the purpose of each interaction or meeting, and they must take care to bring closure to the communication with a specific plan for the next contact responses (Whyman et al., 2005). Kandola's (2006) research on effective business communications in virtual teams suggests the following strategies to nurture trust and increase effectiveness in distant working relationships, which can be applied to e-coaching:

- Provide a variety of communication channels to avoid misinterpretations and allow options for choosing the most appropriate tool for the task at hand;
- Use high-quality, media-rich forms whenever possible, especially in the beginning;
- Encourage the use of casual socialization and spontaneous communications such as virtual coffee breaks, but avoid over-communication and interruption;
- Establish guidelines about response times and message acknowledgement;
- Communicate your availability and unavailability, and be responsive. Non-responsive "silence" can be easily misconstrued and quickly erode trust;

- Be aware of cultural differences regarding appropriate frequency and detail of communication; group discussion forums can be helpful to clarify intercultural misunderstandings.

Factors That Affect E-Coaching

A few studies have examined factors that drive successful e-coaching experiences (Hernez-Broome et al., 2007) or that influence media selection in coaching (Charbonneau, 2002). Several interdependent factors that may affect e-coaching are organized below as they are related to the *innovation*, the *individual*, or the *organizational context*, reflecting models of technology adoption discussed earlier in this chapter.

THE INNOVATION

E-coaching is both a process and technological innovation (Ensminger, 2005). The e-coaching innovation includes the coaching process (mechanics, program content, coach-protégé relationship, techniques) as well as the communication modality (Hernez-Broome et al., 2007) which may include any combination of face-to-face contact and various CMC tools each with their own unique affordances (Suthers, 2006).

Referring to Rogers' model of Diffusion of Innovations, the modality's "relative advantage," (i.e., its ability to increase easy access between clients and coaches) is an important factor in decisions about e-coaching communications. In her study of executive coaches, Charbonneau (2002) found that increasing access to clients was the main factor in the decision to use e-coaching, in addition to the cost savings of e-coaching relative to face-to-face meetings. Of course, technical difficulties or "complexity" may impede the use of CMC tools. Indeed, participants in Wadsworth's study (2001) who relied heavily on e-mail and web-conferencing reported that network connectivity and connection speed hindered their use of e-coaching tools.

THE INDIVIDUAL

Charbonneau (2002) found that media selection was a deliberate decision which coaches and their clients discussed, albeit briefly. A coach must decide on what modality to use given the situation and the tools available, as well as the coach's own and client's abilities, personality, preferences, experience, and coaching philosophy (Hernez-Broome et al., 2007; Pulley, 2006). At a minimum, protégés and coaches should be familiar and

comfortable with technology and willing to try new things (Wadsworth, 2001), and they must believe that e-coaching, and coaching in general, can be effective. Other important client and coach traits are discussed below.

Client Traits and Needs

Coaching is tailored to the client's individual needs, circumstances, and preferences. Clearly, the purpose for coaching and the nature and complexity of the issue to be addressed vary with each individual's specific need and will affect the choice of coaching contact. For instance, some issues might require body language and rich contextual cues only possible in person. Or coaching topics might be of a highly sensitive nature for which the protégé may prefer face-to-face contact, or on the contrary, less revealing distant communications. For instance in Charbonneau's study (2002), nine out of ten executives/protégés reported working with coaches on substantial organizational change or individual issues such as interpersonal skills, performance problems, or significant behavioral change, and preferred face-to-face coaching which they saw as particularly important for establishing trust. On the other hand, most coaches in the study felt that issues related to strategic business planning were suitable for virtual coaching. The coaches in her study believed that protégés must possess a high degree of self-awareness and emotional intelligence, the ability to verbalize issues, and familiarity with CMC technologies.

Sometimes the need to receive coaching outweighs the limitations. Though they preferred face-to-face meetings, a few clients in Charbonneau's study explained that they chose a particular coach for his or her specialized business expertise, and were willing to use whatever means necessary to receive coaching. Furthermore, coaches working with busy executives might rely on the flexibility of e-coaching to fit into the client's schedule. Interestingly, Charbonneau found that the client's position/rank mediated the impact of cost and media selection: for higher ranking clients, the increased expense for in-person coaching was acceptable because face-to-face contact, a more costly approach, was expected.

Coach Traits

Charbonneau (2002) found that media selection among executive coaches was influenced by the coach's willingness to travel, company guidelines regarding media selection (if applicable), and coaches' perceptions of their own effectiveness with various

CMC tools. She also found several coach traits that seemed to influence their ability to provide effective coaching via telephone, including the ability to listen and ask questions effectively, awareness of the deficit caused by the lack of non-verbal cues, and creativity in finding alternative strategies to address those deficits. One coach reported that he used e-coaching to make himself more available just-in-time as an added service for his clients.

Liljenstrand (2003) found that the coach's educational/professional background influenced communication modality. She surveyed over 900 coaches with an academic background in either business (n=551), clinical psychology (n=214) or industrial/organizational (I/O) psychology (n=163). One survey item asked participants to rate how often they used telephone, face-to-face, e-mail, and teleconferencing to conduct coaching sessions. Results showed that coaches with a business background provided face-to-face coaching significantly less often than coaches with an I/O background, supporting her hypothesis that business coaches would be more likely to adopt business-like coaching practices and use the phone and e-mail because they recognize and honor efficiency. Unfortunately, the researcher did not provide data on the frequency of each type of modality used for coaching.

THE CONTEXT/SETTING

As discussed earlier, the theoretical foundations underlying this study suggest that environment has a strong influence on learning and performance. Organizational environment involves the cultural, business, and human resource development and management contexts (Hunt & Weintraub, 2007) that include incentives, infrastructure, management practices, career paths, and communications systems.

Clearly, technology infrastructure affects e-coaching programs and practices. Not only does access to compatible hardware and software influence e-coaching, the degree to which technology is used in the workplace can mediate an individual's familiarity and comfort with technology and thus the person's willingness to try it (Charbonneau, 2002). Policies, programs, and standard practices can affect coaching and e-coaching programs (Charbonneau, 2002). Such issues may include how managers and instructors are rewarded for coaching and how coaches and e-coaches are paid (e.g., for each contact, an hour's work, or each group of students).

Only half of the executive coaches in Charbonneau's study mentioned organizational environment and culture as a factor in media selection (2002). Questions to consider about the culture include the following: Is coaching, whether traditional or computer-mediated, embraced, supported, and rewarded in the organization? Does the culture show preference for a "high touch" over a "high tech" approaches to learning? Does the culture value innovation? How important is immediacy? Coaches working with clients in fast-paced settings, such as entrepreneurs or "dot com'ers," would likely elect diverse and technological communications modalities to reach their clients. On the other hand, a culture that values looking someone in the eye (e.g., police departments) would favor more face-to-face coaching.

SUMMARY

The present study expands on previous work by gathering opinions from coaches and workplace learning professionals from many fields and work contexts. Moreover, this study attempts to identify those factors that may promote or impede the adoption, implementation, and effective use of e-coaching and considers how findings from the present study match the lessons gleaned from Rogers (1995), Ely (1999) and others about innovations and the implementation process.

CHAPTER 3

METHODOLOGY

This chapter begins by restating the problem and purpose of the study, and continues with a rationale and explanation of the research design. Next follows a description of the research participants, setting, and details for data collection, instrumentation, and analysis. Lastly, potential study limitations and researcher biases are considered.

PROBLEM AND PURPOSE OF THE STUDY

To date, the research on e-coaching has been limited to certain occupations or industries (e.g., school principals, nurses), protégé roles (e.g., executives or managers), and goals (e.g., coaching for leadership development, or coaching as a training transfer strategy). Furthermore, existing research has only considered the vantage point of coaches or protégés themselves and has not taken into account workplace learning professionals who are often charged with the design and implementation of e-coaching programs. Before addressing questions about how e-coaching works and what factors influence its success, research must first explore exactly what “it” is (Erickson & Gutierrez, 2002, in Mertens & McLaughlin, 2004).

The primary purpose of the current study was to gain a more contemporary and thorough understanding of what e-coaching is and how it used in organizations across a variety of settings, audiences, and purposes. The researcher also wished to explore the individual and organizational characteristics influencing how e-coaching is used and its success.

RESEARCH DESIGN

This study is descriptive, exploratory, and cross-sectional. It describes the current and projected use of e-coaching in organizations and explores the details of e-coaching practices. The study sample represents a range of industries (i.e., financial, hi-tech, military, government, etc.), applications of e-coaching (i.e., executive coaching, management coaching, on-the-job coaching, etc.), and perspectives (i.e., workplace learning professionals

and coaches). Creswell (2003) suggested using a mixed methods approach when there is a need to explore a phenomenon in further detail and understand the relationship among variables that might explain it. Therefore, this study used a mixed methods design with both qualitative and quantitative data and approaches to examine the use of e-coaching and the factors that impede and influence its use and success.

Mixed Methods Design

This study relied on *Concurrent Nested Mixed Method Design* (Creswell, 2003; Mertens & McLaughlin, 2004), represented in Figure 1. According to the *Handbook of Mixed Methods in Social and Behavioral Research* (Tashakkori & Teddlie, 2003), a truly mixed methods research design includes both qualitative and quantitative approaches in the design, data collection, analysis, and interpretation within a single study. Following the suggestions of Teddlie and Tashakkori (2003), pragmatism guided the current study. The researcher chose the best approach for each research question and the research setting, keeping in mind the needs of those audiences most likely to be interested in the findings. Data collection included both open- and closed-ended questions presented through a self-administered web-based survey and semi-structured telephone interviews. Qualitative and quantitative data were collected concurrently. Data analysis involved both predetermined and emergent coding themes and categories.

RATIONALE FOR MIXED METHODS

There were many reasons to use mixed methods in the current study. First, using qualitative and quantitative methods addressed the shortcomings of each individual approach, and increased the trustworthiness of the research (Tashakkori & Teddlie, 2003). Secondly, mixed methods allowed the researcher to get a more complete picture of human behavior and experience. For instance, according to Gunawardena, Carabajal, and Lowe (2001), qualitative measures can provide a good balance to quantitative data from self-report surveys by elaborating on statistical findings to give further insight into factors that co-vary (May, 1999). Mixed approaches were useful for examining different facets of e-coaching from different groups or different levels. For instance, questions in the survey addressed e-coaching primarily at the organizational and program implementation level, whereas interview questions were aimed at the details of particular e-coaching activities and

engagements at the individual coach level. These different vantage points enabled the research findings to better address the needs of multiple audiences. Workplace learning and performance professionals and human resource managers might be interested in the state of e-coaching across industries as well as leading practices for implementing an e-coaching program, whereas coaches might want to learn about detailed examples of successful e-coaching tools and techniques.

One challenge of a mixed methods approach is that the researcher must be skilled in both methods. The researcher for the current study has extensive experience in the design and delivery of large-scale data collection surveys and conducting semi-structured telephone interviews. The researcher also has experience in the analysis of both qualitative and quantitative data. Other strategies used to address study limitations are discussed later in this chapter.

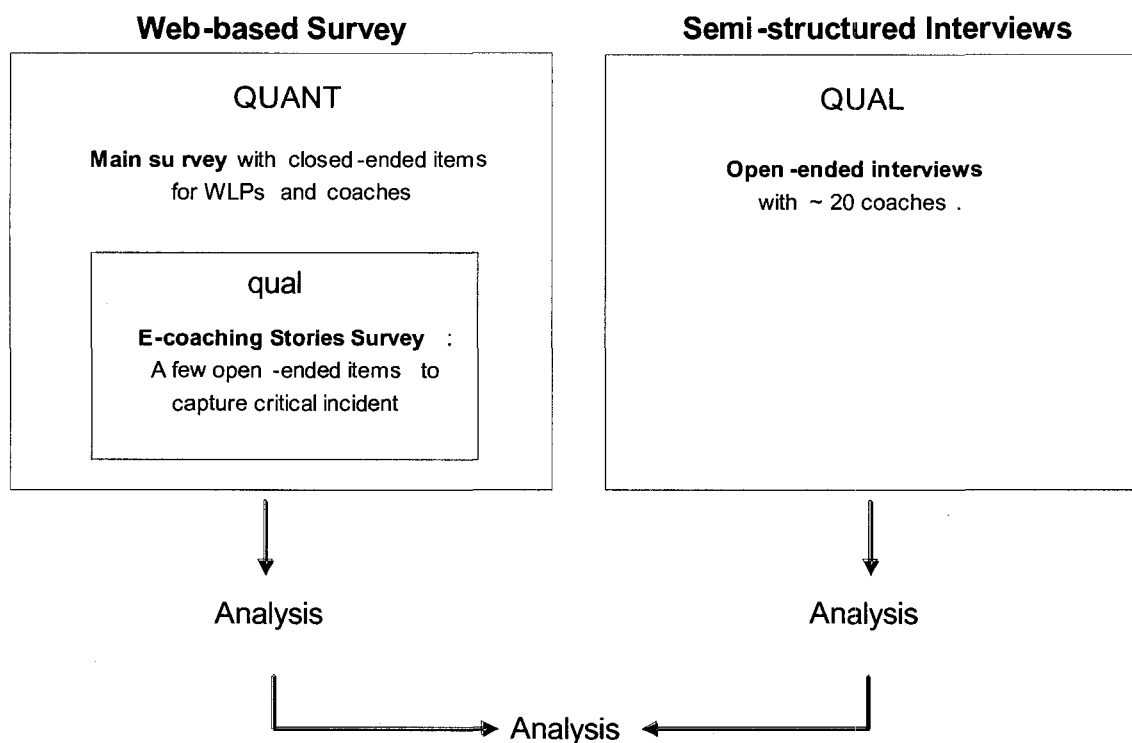


Figure 1. Model of the concurrent nested mixed method design for this study.

RATIONALE FOR CONCURRENT NESTED DESIGN

The present study employed what Creswell (2003) calls a “nested” or “multilevel” design which is useful for seeking information from different groups. The main data collection instrument was a web-based survey targeting a large and somewhat “random” sample of workplace learning professionals. The survey collected group-level data regarding e-coaching programs and practices, and the organizational and contextual factors that influenced its use. The survey itself employed a nested design, consisting of a two components. The main survey was mostly quantitative with a few open-ended items. A brief, secondary qualitative survey went to respondents who volunteered to share their e-coaching “stories.” The researcher also conducted a series of semi-structured telephone interviews with a small purposeful sample of e-coaches to explore the specifics of e-coaching technologies, practices, and success factors. Concurrent, as opposed to sequential, data collection allowed the researcher to develop instruments and collect two different types of data simultaneously (Creswell, 2003). This enabled the researcher to examine multiple levels and groups in the time period available for data collection.

PARTICIPANTS AND RESEARCH SETTING

The population of interest was workplace learning and performance professionals and e-coaches who provide services for work-related purposes in an organizational setting, across industries. The researcher relied on a sample of convenience for all data collection, and recruited both interview and survey participants via e-mail, the Internet, and by phone. Several purposeful sampling procedures were used, based on the work of Creswell (1998) and Miles and Huberman (1994). The researcher used *opportunistic* sampling, taking advantage of volunteers. Through *snowball or chain*, the researcher obtained referrals from personal contacts and from those who received the e-mail call for participation or participated in an interview. The research protocol received approval from the Institutional Review Boards at both universities (see Appendix A). Recruitment sources are summarized in Table 1.

Table 1. Potential Data Sources Who Possibly Received the Call for Participation

Community/Group	Membership
Groups Primarily for Workplace Learning Professionals	
a) ISPI 2007 conference blog page (*posted announcement only)	10,000+
b) SDSU EDTEC – Yahoo group of current or former students from the EdTec program at San Diego State University.	88
c) TRDEV - The Training and Development Discussion Group,	4308
d) DEOS-L - The Distance Education Online Symposium	2203
e) eModerators	713
f) HRNET	1330
g) Online Facilitation	1507
h) The eLearning Guild	22,000+
Groups Serving Coaches	
a) Coach2Coach	274
b) Euro Coach	439
c) ICF: Cleveland Coach Federation	261
d) ICF: Greater Indiana Chapter	185
e) ICF: New Jersey Chapter	605
f) ICF: St. Louis Chapter	161
g) My eCoach	100
h) NewCoachConnection	653
i) Rochester Coaches	104
j) CTI (Coaching & Training Ideas)	6144
Researcher's Personal Contacts (*call for interview)	
k) The Ken Blanchard Companies*	75
l) Professional and academic colleagues and their referrals*	12

Survey Sample

The survey sample was drawn from several professional organizations and communities of practice for workplace learning and performance professionals and coaches and represented a variety of organizational settings and geographies. As you can see in Table 1, the total number of workplace learning professionals targeted by the call for participation was well into the thousands. However, some recipients may have ignored or discarded the e-mail, or forwarded it to colleagues. Therefore, it is unknown exactly how many people received the invitation, and thus, it was impossible to calculate an exact response rate.

To recruit survey participants, the researcher sent a brief e-mail invitation that explained the study and directed interested individuals to the research study website with the

criteria for participation, letter of informed consent, and a link to the survey. See Figure 2 (page 70) for a visual representation of the recruitment process. Survey participants self-selected into the study if they judged that they fulfilled to the following criteria:

- *Age*: I am at least 18 years of age.
- *Role*: I am involved in the design, delivery, implementation, coordination, or leadership of face-to-face coaching and/or e-coaching services or programs (Note: you do not have to be a coach to participate in this survey.)
- *Internal WLP*: I am an internal workplace learning and performance professional (WLP) (i.e., I provide services to one organization where I am employed.)
- *External WLP*: I am an external WLP (i.e. I provide services to one or more organizations where I am not an employee.)
- *Type of coaching*. I provide coaching that is for work-related, organizational, or business purposes (i.e., not “life” coaching). "Coaching" refers to all formal and informal coaching, regardless of how it is delivered. This includes both e-coaching and face-to-face coaching.
- *Recency*: I have been involved in coaching for work-related purposes at some time during the last 18 months.

Interview Sample

Interview participants were identified using additional purposeful sampling procedures (Creswell, 1998; Miles & Huberman, 1994). From those who were referred or who volunteered to be interviewed, the researcher used *criterion sampling* to select those coaches who met the following criteria:

- *Age*. Interviewees were at least 18 years of age.
- *Type of coaching*. Interviewees provided coaching for work-related purposes, not only “life coaching” or “personal coaching.” Interviewees could work as a coach part-time or full-time, and either be connected to an organization or work as an independent consultant.
- *Recency*. Interviewees provided coaching in the last 18 months.
- *Technology use for coaching*. Interviewees provided coaching partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. This may have included coaching done by phone, e-mail, or other computer-mediated communications, and in combination with face-to-face coaching.

When choosing from amongst volunteers, and as data collection proceeded, the researcher used *maximum variation sampling* to ensure that interview participants provided

diverse perspectives on e-coaching (e.g., by organization size or industry, internal or external coach, manager-coach or trainer-coach, various levels of technology use for coaching, etc.).

Incentive for Participation

The researcher offered interview and survey respondents incentives for participation based on their level of participation as summarized in collection tools: (1) a research study website; (2) a two-part web-based survey; (3) a semi-structured telephone interview.

Table 2. Incentives included a summary of findings and literature review and immediate results of select survey items. After initial low survey response, the researcher added another incentive – an entry into a raffle for one of two video iPods valued at approximately \$140 each. In order to ensure fairness, the participants who had already completed the first version of the survey before the raffle was offered, and had provided an e-mail address for the purpose of receiving the research report, were automatically entered into the raffle.

Risk to Participants

The potential risk to participants was minimal and was far outweighed by the potential of contributing to improved training and coaching programs and a better understanding of e-coaching practices and success factors. So that the researcher could contact participants to deliver the promised incentives, participants were required to supply an e-mail address, thus making anonymity impossible. However, participants were informed that participation was voluntary, that their responses would be kept confidential, that results would be reported in the aggregate, and that findings would not be used in any way to evaluate their performance.

INSTRUMENTATION

There was no pre-existing instrument that could do what was required by this study. Therefore, the researcher created two instruments informed by the literature on coaching, workplace learning and development, and technology adoption. Some items were adapted from instruments used in other related research (elearningguild, 2006; Liljenstrand, 2004; Murray, 2001; Rossett & Frazee, 2006; Sugrue & Rivera, 2005). There were three main data

collection tools: (1) a research study website; (2) a two-part web-based survey; (3) a semi-structured telephone interview.

Table 2. Incentives for Participation

Incentive for participation	Level of participation required
Immediate results of select survey items from all survey participants to date.	Survey
One entry into a drawing to win one of two 30Gig Video iPods.	Survey, section one only
A second entry into a drawing to win one of two 30Gig Video iPods.	Survey, section one and two
A brief report that summarizes key findings from the survey and interviews with e-coaches.	Survey or interview
A current literature review of coaching and e-coaching.	Interview
Potential publicity, if you give consent for me to include your name or contact information in any publications (otherwise, your interviews will be kept strictly confidential and reported anonymously).	Interview

All instruments and accompanying introductory materials were reviewed prior to administration for clarity, relevance, and face validity by experts from the dissertation research committee as well as practitioners with extensive experience in research, educational technology, and workplace learning representing business, higher education, and consulting. First, draft materials were reviewed by fourteen individuals. Next, the materials were converted into an online format and pilot tested by seven individuals to ensure that they were functional and error-free. See Appendix B for a list of pilot testing reviewers.

Areas of Inquiry

The main areas of inquiry are listed and described below.

Extent that coaching and e-coaching are being used today. Survey items and interview questions asked about coaching and e-coaching purposes, strategies, processes, and

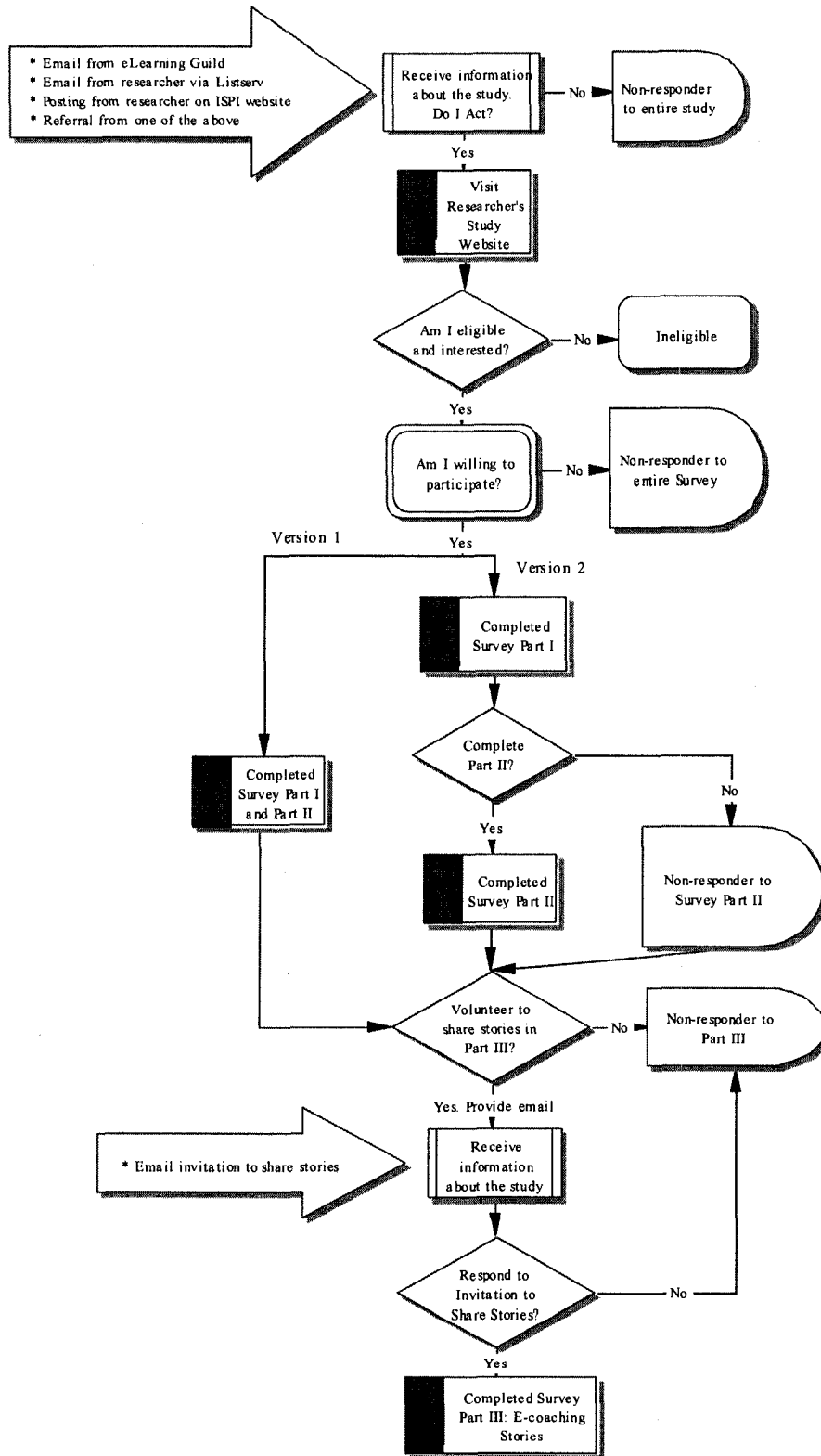


Figure 2. Survey recruitment process.

tools. Two survey items asked respondents to categorize the extent of e-coaching currently being used today and to anticipate its use in the next 18 months.

Individual concerns or beliefs. Survey items and interview questions asked about attitudes and opinions regarding the appropriateness of e-coaching for their needs, the success of current e-coaching efforts, and beliefs about the projected use of technologies for coaching. Survey respondents rated several items according to their satisfaction with various aspects of the e-coaching process and technologies used, such as perceived usefulness and perceived ease of use. Questions were based on the Technology Acceptance Model (TAM) (Davis et al., 1989).

Characteristics of the e-coaching innovation itself. Survey respondents rated several items regarding the nature of e-coaching activities and technologies used. Interviewees described e-coaching technologies and how they were being used. Questions were based on Rogers' Model of Innovation Diffusion (Rogers, 1995).

Perceptions of the e-coaching environment. Survey respondents rated several items regarding their perceptions of the organizational environment (e.g., culture, organizational support, incentives, infrastructure). Interviewees described factors that contributed to the extent of use and success of e-coaching efforts. Questions were based on Ely's eight conditions of change and other frameworks for measuring organizational and transfer climate (Ely, 1999; Stone, 2004; Tracey & Tews, 2005).

Individual or organization demographics. Demographic data were collected to develop profiles of participants and their organizations. For individuals this included age, gender, job role and experience. Organizational demographics included size, industry, and location.

The Research Study Website

The researcher maintained a website about this research study on a university-sponsored server, titled, "Mapping the Terrain of E-Coaching in Organizations" (online at <http://www-rohan.sdsu.edu/~rfraze/ecoaching/>). See Appendices C and D for details. The research study website was used as a way to explain the study to interested parties, screen appropriate candidates, and to encourage visitors to participate and refer their colleagues who might also be interested. After receiving the e-mail invitation, or being referred by a

colleague, the research study website served as the first place that potential study participants would go to get more information and to join the study. The website included the following information:

- *Background information about the researcher and the study.* Brief bio, list of dissertation research committee members and university affiliations, definition of e-coaching and focus of the current study.
- *Criteria for participation and informed consent.* Incentives for participation, criteria for participation, as well as rights as a research subject and IRB contact information.
- *Link to online survey.* By clicking on the link to the online survey, the respondent agreed that s/he was eligible and willing to participate.
- *Link to e-coaching stories survey.* Those interested in sharing an e-coaching story could do so by clicking the link to the web-based e-coaching stories survey.
- *Link for coaches interested in being interviewed.* Coaches interested in being interviewed could visit another page with more information about being interviewed.
- *Instructions on providing a referral.* Those interested in providing a referral were given an e-mail address where they could contact the researcher via e-mail.

Web-Based Survey

RATIONALE FOR A WEB-BASED SURVEY

The use of web-based surveys is gaining popularity in educational and social research (Dillman, 2007; Solomon, 2001). Web-based surveys provide several advantages, including the ability to collect data relatively quickly and cost-effectively from a large number of people in many locations. Furthermore, there is research indicating no significant difference between pencil and paper mail-in surveys and web-based surveys (Cole, Bedeian, & Feild, 2006; Knapp & Kirk, 2003).

SURVEY CONSTRUCTION

For the present study, the researcher developed and deployed a web-based survey using the online survey tool, Survey Monkey (www.surveymonkey.com). The initial version of the survey was developed with the intention of distributing it exclusively through one professional organization for workplace learning professionals. The first version contained thirty-one items that were all required, spanning eight separate web screens. After two weeks of data collection, the survey was modified in an effort to boost participation. The second version of the survey included the same items from version one, rearranged and split into two

sections to decrease the amount of time required by participants. Table 3 lists the sections and sub-sections included in the final version of the main survey and the e-coaching stories survey. See Appendix E for the complete survey instrument.

Main Survey

The second and final version of the survey contained thirty-two mostly closed-ended items, and was organized into two sections, one required and one optional section, spanning nine separate web screens. Survey items contained a mix of response types such as pull-down menus and 5-point Likert-type rating scales. In some cases, one item might involve from two to thirteen sub-items to be rated. Some of the closed-ended rating items included an open-ended item allowing respondents to add “other” responses. Before starting the survey, participants were told that the survey contained two sections and that they would receive one entry into the raffle for each section completed.

Section one was required of all respondents and was comprised of twenty-four items covering demographics, technologies and practices used to deliver coaching, and participants. After completing section one, respondents could decide whether or not to continue with section two, which contained seven additional items about factors that affect how coaching programs are implemented and supported. The last item asked whether or not someone in the organization measures the effectiveness of coaching programs. If respondents answered “yes,” they were presented two more questions about measuring success. Otherwise, they were taken to the “Next Steps” page.

In closing, regardless of whether respondents completed one or both sections, participants chose whether they wanted to be entered into the drawing for the iPod, receive a copy of the summary report of findings, and share a story about their experiences with e-coaching, at which time they were required to provide an e-mail address or further contact. Though respondents did not have to supply their contact information if they wished to remain completely anonymous, there would be no way for them to receive the research report or be entered into the raffle without providing an identifier. Participants were also asked to volunteer the e-mail address of a coach colleague who might be appropriate to be interviewed for the study. Finally, respondents were thanked and given a link leading to the researcher’s

website where they could view a page with graphs of results to date for selected survey items. (see Appendix F for a sample of the results that were available on the website).

Table 3. Three Main Components of the Web-Based Survey

Screen #	Section Description	Number of Items
1. Researcher Study Website (online at http://www-rohan.sdsu.edu/~rfrazeecoaching/)		
1	Background, Criteria and Consent to Participate	-
2. Main Survey (online via Survey Monkey)		
1	Introduction, Terminology, Instructions	-
• Section I		
2	You and Your Organization	6
3	Coaching Practices	8
4	Coaches and Protégés	2
5	The Role of Technology	3
6	Concluding Comments, Demographics	5
7	Thank You and Invitation to Complete Section II	-
• Section II		
8	Coaching Implementation	5
9	Measuring Success	2
• Closing		
10	Next Steps and Referrals	3
11	Thank You	-
3. Secondary Survey of E-Coaching Stories (online via Survey Monkey)		
1	Introduction, Terminology, Instructions	-
2	Criteria and Consent to Participate	1
3	Demographics	2
4	E-Coaching Story #1	1
5	Thank You and Invitation to Share Another Story	1
6	E-Coaching Story #2	1
7	Thank You and Invitation to Share Another Story	1
8	E-Coaching Story #3	1
9	Thank You , Next Steps and Referrals	3

Secondary Survey for E-Coaching Stories

Distributed a few weeks after the initial survey, the secondary survey asked open-ended questions about critical incidents of e-coaching. Participants shared the story of a particularly effective or ineffective example of e-coaching that they had personally observed or experienced in the last 18 months. They were guided to tell their stories with the introductory information detailed in Figure 3, and were instructed to type their stories into a scrolling text box without any limits on word count. Further information about the critical incident technique can be found in the next section of this chapter.

Now, please think of an example of e-coaching that you have personally observed or experienced in the last 18 months or so. It could be an example of e-coaching that stands out because it was particularly *effective* OR particularly *ineffective*, and you may even have both kinds of examples that you'd like to share. Share as many stories and take as much time as you like!

Please **describe the key elements of your e-coaching experiences with enough detail so that they can be clearly understood by others**. Remember, I am interested in an event or series of events, not just a particularly outstanding individual. Here are some questions to assist you in telling your story:

- What were you trying to accomplish? Why was e-coaching used in this situation? Did it meet your expectations?
- What happened? Who was involved? (e.g., setting, circumstances, methods, materials, timing, outcomes, etc.)
- What technologies and tools were used? For what purposes?
- What impact did various technologies have on this coaching experience?
- What was most challenging? What went really well?
- How did this compare with face-to-face coaching experiences?
- What would you keep the same? Change?
- What lessons were learned?
- Would you do it again? Would you recommend it?

Describe your e-coaching story in the text box below.

Figure 3. Introductory prompt to elicit e-coaching stories online.

Semi-Structured Interviews

To gain a more detailed picture about e-coaching practices and success factors, data was collected through in-depth semi-structured interviews with coaches that lasted approximately 45-60 minutes. Fontana and Frey (2000) suggest that unstructured interviews can provide greater breadth of data, and seek to “understand the complex behavior or members of society without imposing any a priori categorization that may limit the field of inquiry” (p. 653). The interview included mostly open-ended questions, plus a series of questions based on Flanagan’s (1954) Critical Incident Technique (CIT) described below. See Appendix G for the Interview Protocol.

THE CRITICAL INCIDENT TECHNIQUE (CIT) USED FOR THIS STUDY

For the purposes of the present study, the researcher was interested in the details of effective and ineffective e-coaching incidents used in an organizational context and intended

to support workplace learning and performance. The CIT was used to elicit participants' interpretations of organizational climate and culture and to develop a better understanding of factors that might influence e-coaching use and practices. Incidents for this study included a situation, event, or series of events that involved some level of computer-mediated communications (CMC) for delivering the coaching. The researcher elicited the critical incidents as part of a longer interview using the introduction detailed below in Figure 4.

Please think of a situation, event, or series of events that stands out because it was a particularly effective OR particularly ineffective example of e-coaching. I'd like you to describe the key elements of this experience with enough detail so that it can be clearly understood by others. Remember, I am interested in an event or series of events, not just a particularly outstanding individual.

Figure 4. Critical incident interview prompt.

RATIONALE FOR THE CRITICAL INCIDENT TECHNIQUE (CIT)

The Critical Incident Technique (CIT) is a procedure for collecting an individual's account of the specific behaviors and conditions that led to the successful or unsuccessful completion of some task. Originally developed by Flanagan (1954), the CIT is one of the most frequently cited data collection methods in industrial and organizational psychology research, and widely used in other fields including communications, marketing, organizational learning, education and teaching (Butterfield, Borgen, Amundson, & Maglio, 2005). Critical incidents can be collected through interviews, paper-based surveys or through anonymous web-based surveys (Marrelli, 2005; Massad, 2003)

The CIT was well suited for the purposes of the present study. Critical incidents provide a richer, more in-depth perspective and help to gain insights into the organizational context that might not be uncovered through quantitative measures alone. The CIT is useful for identifying performance improvement needs and their drivers, as well as factors, behaviors, and components of successful performance (Marrelli, 2005). Critical incidents can be shared as "success stories" from which to learn. The CIT is useful for exploring the complex interactions between individuals because it allows the researcher to take a holistic approach to collecting data, capturing rich and context-dependent stories. Because the CIT is used to elicit particularly favorable or satisfying or unsatisfying experiences, respondents

tend to recall the details more vividly (Massad, 2003). Brinkerhoff (2001) uses an approach called the Success Case Method (SCM), which is in large part based on the critical incident technique, to examine the effectiveness of workplace learning and performance interventions and to uncover the organizational factors that influence success.

LIMITATIONS OF THE CRITICAL INCIDENT TECHNIQUE (CIT)

One limitation of the CIT is that it relies on the retrospective judgment of respondents which can be incomplete or inaccurate, and it can be challenging to elicit enough detail from respondents. Furthermore, once data has been collected, decisions must be made about what incidents to include in the final analysis, and the researcher must determine the relevant criteria for excluding inappropriate incidents. One way to establish validity and reliability of data collected and analyzed using the CIT is through member checks, as well as having colleagues and experts examine the categories to increase their credibility (Butterfield et al., 2005)

DATA COLLECTION PROCEDURES

Data collection for the web-based survey and interviews took place concurrently during a four month period between February and May, 2007.

Web-Based Survey

The online survey was deployed using a web-based survey developed through the online survey tool, Survey Monkey (www.surveymonkey.com), and available to be completed during a two-month period. The survey was designed to take approximately 15 to 20 minutes to complete. The researcher used several strategies to increase response rate based on a meta-analysis conducted by Cook, Heath, and Thompson (2000) as well as the work of other authors (Dillman, 2007).

- Use a simple web-page design that loads quickly in the browser;
- Contact the sample prior to and separate from sending the survey, and make follow-up “reminder” contacts with non-responders;
- Conduct usability testing on the web-based instruments;
- Offer an incentive/reward for participation.

INITIAL CALL FOR PARTICIPATION TO GUILD MEMBERS ONLY

The initial call for participation was distributed exclusively to members of a large professional organization for workplace learning and performance, *The eLearning Guild*. A brief e-mail was sent from the Guild to all its members on February 5, 2007, informing them about an important research study and encouraging them to visit the research study website in the next two weeks for more information and instructions on how to participate (see Figure 5). The invitation and the follow-up reminders were embedded within a larger, weekly e-mail newsletter called the *eLearning Insider*.

From: e-Learning_Insider@eLearningGuild.net
Date: 02/05/2007

e-Coaching: Help a Graduate Student and Gain Access to Valuable Data
Little is known about today's e-coaching (including phone or other computer-mediated communications, with or without face-to-face coaching). Please participate in a new survey of e-coaching conducted by a doctoral candidate under the direction of Allison Rossett at San Diego State University. For your contribution, you will receive immediate access to survey results and a final research report distributed by the candidate and SDSU. Please complete the survey by February 16. Click here to participate in the survey!

Figure 5. Initial e-mail invitation sent to *eLearning Guild* membership.

After receiving very low participation in the first few weeks of data collection, the researcher and dissertation committee agreed to alter the survey protocol to boost participation. Thus, the researcher split the main quantitative survey into two sections, one required and one optional, and added the raffle incentive for participation. Subsequently, the Guild sent a follow-up e-mail on February 26, 2007, approximately three weeks after the initial invitation, and a third and final reminder on March 5, 2007. The follow-up reminders are detailed in Figure 6.

EXPANDED CALL FOR PARTICIPATION

Still, after a low response rate from the Guild during the first month, it was decided to expand the call for participation to include other professional organizations and communities of practice for workplace learning and performance professionals and coaches (see Appendix H). The researcher contacted the moderators of those communities to gain permission to distribute the call for participation. After receiving permission, either the

researcher or the listserv moderator sent the e-mail invitation to the group's membership. See Appendix I for details of the e-mail invitation sent to these groups.

Follow-up #1

From: e-Learning_Insider@eLearningGuild.net

Date: 02/26/2007

New e-Coaching Research – Help a Colleague & Help Yourself to Valuable Data!

What do we really know about e-coaching (including phone or other computer-mediated communications, with or without face-to-face coaching)? Who is doing it and why? What forms does it take? Please participate in this survey of e-coaching conducted by a fellow Guild member/doctoral student under the direction of Dr. Allison Rossett at San Diego State University. You will receive immediate access to survey results and a final research report by the student. Participate by March 5th for a chance to win one of two video iPods!. Click here to participate today!

Follow-up #2

From: e-Learning_Insider@eLearningGuild.net

Date: 03/05/2007

e-Coaching Survey: Help a Colleague & Help Yourself to Valuable Data!

What do we really know about e-coaching -- including phone or other computer-mediated communications? Who is doing it and why? What forms does it take? Please participate in a survey on e-coaching being conducted by a graduate student under the direction of Dr. Allison Rossett at San Diego State University. You will receive immediate access to survey results and a copy of the final research report by the student. Participate by March 6th for a chance to win one of two video iPods! To complete this survey now, click [HERE!](#)

Figure 6. Follow-up e-mail reminders to *eLearning Guild* members.

INVITATION TO SHARE E-COACHING STORIES

One item at the end of the main quantitative survey asked respondents whether they would like to share an e-coaching story. Those who expressed interested provided an e-mail address for further contact. The researcher gathered the e-mail addresses of those volunteers, and sent an e-mail thanking them for their participation and asking them to share their stories by visiting the provided link to the online e-coaching stories survey. The researcher followed-up again two weeks as a reminder to share their e-coaching stories. Furthermore, the research study website contained information inviting people to share their e-coaching stories, including a link directly to the story survey.

Interviews

Qualitative data collection consisted of semi-structured telephone interviews with coaches. First, the researcher recruited interview volunteers as described in Table 4.

Table 4. Interview Recruitment Sources

Source	Number
<i>Referrals collected from the researcher's colleagues.</i> Because the researcher anticipated a low rate of volunteers who would volunteer to be interviewed, the researcher began by asking colleagues to refer coaches whom they believed might be appropriate for inclusion in the study.	10
<i>Referrals collected from survey respondents.</i> One item on the survey asked respondents to share the name and e-mail address of a coach who might be appropriate and interested in the study. The researcher gathered those e-mail addresses as the data came in, and contacted those referrals via e-mail.	25
<i>Referrals collected from interviewees.</i> Before and/or during the interview, the researcher asked participants to refer a coach colleague who might be appropriate for the study. For instance, one interviewee agreed to send an e-mail to dozens of coaches in her coaching network endorsing the study and asking them to volunteer to be interviewed.	26
<i>Volunteers who initiated contact with the researcher.</i> In some cases, a coach who had heard about the study and was interested in being interviewed made the initial contact with the researcher via e-mail, and the researcher proceeded with the recruitment process.	8

The researcher contacted potential interviewees by e-mail to pre-screen them against the participation criteria (see description of *Interview Sample* on page 67) and to schedule appointments for telephone interviews. The researcher sent a reminder e-mail prior to the meeting, and called the participant at the scheduled time. As each interview began, participants were informed of their rights, given a brief description and purpose of the study, and asked to give permission for the conversation to be recorded. Each interview took approximately 45 to 60 minutes to complete, was recorded with permission, and later transcribed. As a backup measure, the researcher took notes during the interview regardless of whether or not it was being recorded.

Data Handling

Data collection procedures were designed to ensure confidentiality. Results have been reported in the aggregate whenever possible, and names and other identifiers stripped from the data before they were analyzed. The survey data were collected and stored through the

researcher's password-protected account provided by the company hosting the web-based survey application (i.e., SurveyMonkey.com). The researcher downloaded the data as a spreadsheet from the survey website to the researcher's personal computer, located in a secured private office off campus and backed up regularly on a remote password protected server hosted by a commercial service provider (i.e., .Mac account). Paper-based records were stored in a locked file cabinet in a secure private office off campus.

DATA ANALYSIS

Data analysis was descriptive, exploratory, and cross-sectional. Descriptive analysis examined demographic data for respondents and their organizations, the extent to which e-coaching is being used, and respondents' perceptions of organizational factors. Exploratory analysis was used to examine trends and explore relationships among various factors affecting the pattern of use and the success of e-coaching. Data analysis sought factors and concerns shared by all participants, as well as those that might be specific to a particular group based on individual or organizational demographics.

Quantitative Analysis

All quantitative data were analyzed using the *Statistical Package for the Social Sciences* (SPSS), version 15.0. Quantitative analyses of the survey data included descriptive techniques such as frequencies, cross-tabulations, and Chi-square for non-parametric data, as well as correlations and multiple regression analysis to examine relationships among variables where appropriate. For instance, correlations and regression analyses were used to determine what factors are most strongly associated with higher levels of computer-mediated communications used for coaching.

Qualitative Analysis

Recorded interviews were transcribed, and transcripts and open-ended survey responses were coded. As a starting point, the researcher began with a framework of predetermined codes based on the literature regarding e-coaching activities as well as those factors that have been found to influence workplace performance, coaching, and technology selection and adoption. As unexpected themes emerged, they were added to the data coding scheme. However, because the interviews and surveys use two separate samples that were

selected using very different techniques and criteria, the researcher was careful not to combine data from these two groups.

UNIT OF ANALYSIS

For the purposes of analyzing the qualitative interview data, the unit of analysis was each individual interview. Within each interview, the researcher looked for phrases that expressed satisfaction or dissatisfaction as it related to various e-coaching activities, processes, or tools, as well as other contextual details.

LIMITATIONS

This section begins with descriptions of the limitations of the study design, followed by explanations of several ways in which the researcher addressed each limitation.

Researcher Bias

The researcher's beliefs and experiences regarding technology use, and workplace learning and performance colored all aspects of the study, from methods, to instrument wording, to data coding and analysis. For example, the ways in which questions are worded and presented, and used to probe during interviews, might have been influenced by the beliefs and attitudes of the researcher.

Respondent Bias

SOCIAL DESIRABILITY

In the present study, respondents were individuals who are the providers or managers of e-coaching services and as such, they are substantially responsible for e-coaching success. Therefore, when asked to recall the facts about e-coaching experiences, respondents might have described what they believed should have occurred rather than what actually did occur. Respondents may have believed that the researcher had certain expectations about e-coaching, and thus, may have provided answers to please the researcher.

NON-RESPONDERS

The number of eligible coaches and workplace learning professionals targeted for the survey could have been in the thousands, whereas the final sample included a little over two hundred. Because the study required willing volunteers to participate in data collection, the

survey sample was self-selected in terms of those who volunteered to participate. That could affect results, either by over or under representing a certain segment of the population. Therefore, one must consider how well responders are representative of the sample and the larger population compared to non-responders. For instance, those who have an affinity for coaching, or technology use, or answering surveys, or for telling their stories may have been more inclined to participate. On the other hand, responders may have strong beliefs that coaching should never involve a distance or technology-enabled component. It would have been useful to contact non-responders to see if and how they might differ from respondents in order to uncover any potential bias in the results (Cook et al., 2000). In this study, however, the researcher was unable to gather data from non-respondents due to lack of access to their contact information.

SELF-REPORT

All of the data collected in the current study are based on self-report, presenting some disadvantages. For instance, inaccuracies in survey responses may have occurred due to errors of retrospection or poorly worded questions (Dillman, 2007), and reported levels of technology use might have been under- or overestimated. However, self-report data remains useful, and its shortcomings have been addressed by careful consideration and discussion of those limitations during analysis and interpretation.

REACTIVITY

The telephone interviews and surveys were confidential, but not anonymous. Though the web-based survey provided a sense of anonymity by not requiring respondents to share any identifying demographics, some survey respondents may have felt that their surveys were not truly anonymous because responses could be digitally traced to their computer and e-mail address. Furthermore, as described earlier, participants were required to supply an e-mail address in order to receive the incentives. Participants gave an e-mail address after completing the survey, and could have gone back and changed their answers at that time.

Research Design Bias

SAMPLE SELECTION

The survey sample was drawn mostly from those who have chosen to join a professional organization or community of practice which could be influenced by a number of factors, such as their employment status (e.g., whether or not they had to pay for membership, or whether or not they are trying to network to find a job). Furthermore, because all of the communities of practice targeted in this study had an online presence such as a website or listserv, respondents drawn from these groups were likely to be more experienced with the Internet and e-mail. Though having a tech-savvy sample was beneficial for the purposes of this study, these respondents might also present perspectives that are positively skewed towards the use of technology, especially members of those organizations or communities that are specifically focused on the use of technology for training and education, such as *The eLearning Guild*, or the *Online Facilitators* community. In order to make sure that all possible respondent groups were represented without bias, the researcher could have done a mixed-method survey approach using both online and phone or print-based surveys (Dillman, Tortora, & Bowker, 1998). However, the time and staffing limitations of the current study did not allow for such an approach.

The call for participation went out to several professional organizations and communities of practice for workplace learning professionals and coaches, and those who received the e-mail invitation, might have shared the invitation with colleagues who in turn might have visited the research website and decided to participate in the survey, or share an e-coaching story, or both. The sample was drawn from a broad group, making it difficult to make statements about how the sample compares to the larger population. Thus, sample selection in this study has posed a potential threat to external validity.

COVERAGE

Coverage is an issue because only those with internet access were potential responders to a web survey. Likewise, interview and survey participants included only those who have e-mail, since that is how the call for participation was distributed. Furthermore, survey questions asked about the use of various technologies which required respondents to have familiarity with related technology terms. However, this is appropriate for the present

study since the intent is to explore how CMC technologies are used for coaching, and therefore, the focus is on gathering opinions from those individuals who are familiar with the internet and e-mail. To address issues of coverage, the researcher made sure to provide a clear description of participants and situate the study's findings in context.

RESPONSE RATE

Unfortunately, the researcher was unable to calculate a precise response rate because it was not possible to determine how many people actually received and opened the e-mail call for participation, and of that number, the percentage who were eligible for this study. However, Richards-Wilson and Galloway (2006) posit that response rates are often meaningless and instead, they suggest that data collection strategies may be better guided by efforts to be cost-effective rather than to chase after a high response rate which may not necessarily lead to increased precision. The important issue is how representative the sample is of the underlying population.

Improving Quality

Guba and Lincoln (1989) suggest that there are many parallels between the criteria used to judge the merit of qualitative and quantitative research. This study used a mixed-method approach (Creswell, 2003), and thus employed several strategies to ensure quality.

CREDIBILITY AND INTERNAL VALIDITY

Credibility, the equivalent of internal validity, is the extent to which there is "a correspondence between the way the respondents actually perceive social constructs and the way the researcher portrays their viewpoints" (Mertens & McLaughlin, 2004, p. 105). The following strategies were used to address threats to credibility.

Triangulation

The research used multiple sources and types of data, including both qualitative and quantitative data collection. The study used both quantitative and qualitative methods to counteract weaknesses inherent in each approach, to corroborate findings from each, and to get a broader perspective about e-coaching at both the macro-level as well as the micro-level. Because e-coaching is not well understood, the study employed qualitative, open-ended questions to allow for details about the phenomenon to emerge. The researcher used closed-

ended survey items and coded qualitative data (i.e., open-ended responses from survey and semi-structured interviews) to describe e-coaching practices and examine relationships among various factors.

Peer and Expert Review

As the study proceeded, including study design, data collection, analysis, and interpretation, the researcher discussed approaches, findings, and conclusions with knowledgeable colleagues to gain insights into potential researcher biases. In designing the survey and interview instruments and accompanying introductory materials, the researcher included the opinions of experts from the fields of workplace learning and performance and coaching. In addition, all instruments were pilot tested with representatives from the study population and refined based on their input. During the analysis phase, to verify that the data was accurately collected and that the researcher's interpretations matched the intentions and perspectives of respondents, the researcher shared portions of the data and coding schemes with expert colleagues to make sure that interpretations were consistent with the data.

TRANSFERABILITY AND EXTERNAL VALIDITY

Transferability is the extent to which the findings from this study transfer to other contexts. Guba and Lincoln (1989) suggest that transferability is another important criterion in assessing the merit of qualitative research, and is the equivalent of external validity in quantitative approaches. They hold the reader responsible for determining transferability, provided that the researcher includes sufficient detail to do so. In order to address threats to transferability and external validity, the researcher used multiple sources of data from various perspectives in order to provide a rich description and enough detail about e-coaching and the contexts for e-coaching so that the reader can judge whether and how these findings transfer to their own settings. The findings from this study provide insights to researchers and practitioners who must carefully compare the e-coaching programs described in this study to their own and the ones they hope to build in the future.

AUTHENTICITY

Researchers can increase authenticity by presenting a "balanced view of all perspectives, values, and beliefs" (Mertens & McLaughlin, 2004, p. 108). In order to increase

authenticity, the researcher sought opinions from coaches themselves as well as workplace learning professionals, from internal and external employees, and from a cross-section of organizational and geographic settings. Furthermore, to prevent the data collection from being skewed, instruments were designed to present questions in a neutral way, using neutral wording when possible, and striking a balance with questions about satisfactory as well as unsatisfactory experiences with e-coaching.

SUMMARY

Data collection addressed all research questions from the perspectives of two different groups, workplace learning professionals and e-coaches. At the program level, a self-administered two-part web-based survey gathered opinions and stories from workplace learning professionals across a variety of organizational settings regarding the current and projected use of e-coaching and influence of various contextual factors. Through semi-structured telephone interviews with e-coaches, the researcher captured a more detailed view of how e-coaching works at the individual level. Analyses of qualitative and quantitative data served to describe the study sample and the current state of workplace e-coaching across different settings, and to uncover success factors and leading e-coaching practices.

CHAPTER 4

RESULTS

This study examined how e-coaching is used in organizations and the factors influencing implementation using a web-based survey and telephone interviews with workplace learning professionals and coaches. This chapter describes the characteristics of the study sample and provides results of both quantitative and qualitative data analyses. Specific findings are presented to answer these research questions:

1. How is e-coaching being used in organizations today and as projected into the near future?
 - a. To what extent is e-coaching happening in organizations?
 - d. For what purposes is e-coaching being used?
 - e. What types of strategies, practices, and processes are involved in e-coaching?
 - f. What technologies and tools are being used and what is their role in e-coaching?
 - g. How successful is e-coaching in the views of workplace learning professionals and coaches?
2. What factors have the most influence on patterns of use and perceptions of success of e-coaching?
 - a. What factors related to the individual have the most influence?
 - b. What factors related to the e-coaching innovation itself have the most influence?
 - c. What factors related to the organizational context have the most influence?

This chapter is divided into four sections: a brief explanation of the final data set and data presentation, a detailed description of the study population, examination of how e-coaching is used in organizations organized around the research questions, and significant independent factors that influence e-coaching deployment and success.

Description of Quantitative Data Presentation

FINAL DATA SET

Two hundred thirty-five individuals responded to the web-based survey. After examining suspicious and incomplete data, a total of 191 valid survey responses (81 %) were

considered in the final analysis. Of the final survey sample, all 191 (100%) completed part one of the survey which addressed coaching practices, purposes, audiences, and sources, the role of technology, and demographics about respondents and their organizations; 160 (84%) completed part two which addressed organizational elements, coaching roles, how coaching was evaluated, and perceived benefits and future use of e-coaching. In addition, thirteen individuals (7%) completed the separate e-coaching stories survey.

GROUPING DATA BY “E-COACHING LEVEL”

Because this study focused on e-coaching, findings about general coaching practices are presented only as they relate to e-coaching. One survey item inquired about how *most* coaching was delivered in the organization, on a continuum from mostly face-to-face to mostly virtual communications. The amount of e-coaching was then used as a grouping variable, “e-coaching level.” Details about e-coaching level are discussed below. All survey data were examined for differences by e-coaching level using analysis of variance and Chi-square. All tables in this chapter present data organized by *e-coaching level* to feature what was typical for those reporting high levels of e-coaching, in other words, in the organizations doing the most e-coaching.

E-COACHING LEVEL: HOW MOST COACHING IS DELIVERED IN THE ORGANIZATION

One survey item asked how *most* coaching is delivered in the organization. Respondents were given five choices representing increasing amounts of virtual coaching, from coaching done *entirely face-to-face* (1) to coaching done *exclusively at a distance* (5), with a score of (3) representing *about equal amounts* of face-to-face and virtual coaching. On average, coaching tended to involve less virtual and more face-to-face communications (mean= 2.70).

As shown in Table 5, almost half (46%) of respondents reported that most coaching is done *primarily face-to-face with some virtual coaching*, more than double the percentage reporting *about equal levels* of face-to-face and virtual coaching (20%) or *coaching done primarily virtually* (19%). Fewer than ten percent reported that most coaching is done either *exclusively at a distance* (6%) or *entirely face-to-face* (8%).

Table 5. E-Coaching Level: How Most Coaching Is Delivered (N=191)

	n (%)	E-coaching Level
Coaching is done <u>exclusively at a distance</u> or virtually with NO face-to-face coaching (e.g., coaching happens by phone, e-mail, and other computer technologies)	12 (6%)	High ECh n=49 (26%)
Coaching is <u>primarily done virtually</u> , with some coaching done face-to-face.	37 (19%)	
Coaching is conducted <u>about equally</u> face-to-face and virtually.	39 (20%)	Equal ECh n=39 (20%)
Coaching is <u>primarily done face-to-face</u> , with some coaching done virtually.	87 (46%)	Low ECh n=103 (54%)
Coaching is done <u>entirely face-to-face</u> , with technology only used for administrative tasks, if at all.	16 (8%)	

To compare high versus low levels of e-coaching in organizations, a new variable was computed, *E-Coaching Level*, with three groups: “Low ECh” included coaching done *entirely* or *primarily* face-to-face (n=103, 54%); “Equal ECh” included coaching done *about equally face-to-face and virtually* (n=39, 20%); “High ECh” included coaching done *primarily* or *exclusively at a distance* (n=49, 26%). Based on this new grouping variable, significant differences were found by e-coaching level in several areas discussed in this chapter.

It is important to note that although sixteen respondents reported that *most* coaching was done *entirely face-to-face*, this does not mean that they reported no e-coaching at all. On other survey items, those respondents reported some use of technologies for coaching.

Description of the Sample

This section describes the characteristics of survey respondents and their organizations, followed by a description of e-coaches who participated in interviews. For quantitative data, differences by e-coaching level were examined using analysis of variance and Chi-square. So that each group contained a sufficient number of data points for comparative analyses, some survey response choices were collapsed and recoded.

SAMPLE SOURCE AND PROFESSIONAL AFFILIATION

Survey respondents were categorized by how they were recruited into the study. Out of 191 valid cases, thirty respondents (16%) completed the first version of the survey, sent to members of the *eLearning Guild* professional organization exclusively. The second version of the survey was completed by 161 respondents (84%), from *eLearning Guild* and other sources. Overall, almost half were from *eLearning Guild* (45%), followed by “colleague” (13%), “DEOS” (the distance education online symposium) (7%), and “TRDEV” (training and development forum) (6%), and other sources. (see Appendix J for more information). Recruitment source was re-coded into two “professional affiliation” groups: (1) training and development/human resource/instructional technology affiliation (TD/HR/IT); (2) coaching affiliation. More than three times as many respondents (77%) had a TD/HR/IT affiliation compared to a coaching affiliation (23%). Respondents in organizations reporting higher levels of e-coaching were significantly more likely to be coaching affiliates ($\chi^2 = 20.329$, $p < .00$). See Table 6 for details.

PROFESSIONAL ROLE, GENDER, AGE, YEARS OF EXPERIENCE

Respondents characterized themselves as either an *internal workforce learning and performance professional* (WLP) (i.e., I provide services to one organization where I am employed.), or an *external WLP* (i.e. I provide services to one or more organizations where I am not an employee.) Almost two-thirds were *internal WLPs* (61%) and about one-third (39%) were *external WLPs*. External WLPs reported significantly higher e-coaching levels ($\chi^2 = 15.289$, $p < .00$).

Gender was equally split between male (50%) and female respondents (50%). Close to two-thirds were aged 35-44 years (30%) or 45-54 years (35%), with fewer than one-fifth 34 years and under (18%), or 55 years and older (17%). Respondents supplied the year they started working in a field related to workplace learning and development, from which *years of experience* was calculated. Years of experience ranged from one to forty-one years, with a mean of almost 13 years (mean = 12.83, sd = 8.73). Gender, age, and years experience did not significantly affect level of e-coaching, as shown in Table 6.

Table 6. Chi-Square for Respondent Demographics by E-Coaching Level

	Levels of E-Coaching Usage (% of group)			Percentage of Total (N=191)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
Professional Organization Affiliation (n=187) ***				
Coaching Focus	11%	27%	44%	23%
TD/HR/IT Focus	89%	73%	56%	77%
WLP Role ***				
Internal	72%	59%	39%	61%
External	28%	41%	61%	39%
Gender (n=187)				
Male	51%	46%	49%	50%
Female	49%	54%	51%	50%
Age (recoded) (n=187)				
Under 34	17%	17%	18%	18%
35-44	37%	20%	22%	30%
45-54	34%	40%	35%	35%
55+	12%	23%	24%	17%
Job Focus (recoded) *				
Training or Education	57%	38%	41%	49%
Human Resources or Organizational Development	15%	13%	8%	13%
Information Technology or Web/Internet Development	7%	10%	2%	6%
Sales, Marketing, Operations, Customer Service, Engineering, Product Development, or R&D	10%	10%	18%	12%
Independent Consultant*	8%	23%	20%	14%
Other	4%	5%	10%	6%
Years Experience				
How many years working in a field related to workforce learning and performance?	Mean 11.79	Mean 15.51	Mean 13.12	Mean 12.83

*=p<.05, **=p<.01, ***=p<.00

There were significant differences in WLP role and gender by age and years experience. Males in the survey tended to be significantly younger than the females ($\chi^2 = 11.593, p=.041$), and internal workplace learning professionals tended to be significantly

younger than external WLPs ($\chi^2 = 13.799$, $p = .017$), with significantly fewer years of experience than external WLPs ($t = -2.38$, $df = 185$, $p < .02$). Not surprisingly, age and years of experience were positively correlated ($r = .609$, $p < .01$).

JOB FOCUS AND JOB ACTIVITIES

Survey respondents selected their primary division, department, or focus from twelve choices. Due to low counts in some categories, job focus was re-coded to six choice options. Almost half reported their primary job focus as *training and education* (49%), followed by *independent consultants* (14%), *human resources or organizational development* (13%), and *sales, marketing, operations, customer service, engineering, product development, or research and development* (12%). As shown in Table 6, a significantly larger proportion of independent consultants were in the *High Ech* group ($\chi^2 = 21.016$, $p < .05$, $df = 12$). Significantly more internal WLPs focused on training or education ($\chi^2 = 56.382$, $p < .00$), and all but one independent consultant worked as an external WLP.

Survey respondents rated how much of their job involved five activities on a five-point scale, from (1), *not part of my job*, to (5), *a big part of my job*. Overall, the most typical activities involved *servicing as a coach* (mean=3.64), *delivering/facilitating face-to-face instruction* (mean=3.44), or *online instruction* (mean=3.41). For those in the *High Ech* group, the biggest part of their jobs involved *servicing as a coach* (mean=4.0), significantly more so than other groups ($F = 3.953$, $p = .021$, $df = 2$), and *delivering/facilitating online instruction* (mean=3.43), whereas *receiving coaching* (mean=1.90) or *delivering face-to-face instruction* (mean=3.06) were the smallest part of their jobs.

ORGANIZATION SIZE, TYPE, AND HEADQUARTERS

Table 7 presents organizational demographics for survey respondents by e-coaching level. About half of respondents served organizations with 500 or fewer employees (49%), and almost three-quarters served organizations with 5000 or fewer employees (77%). The largest group had *1-20 employees* (26%), followed by *101-500 employees* (14%), and *501-1000 employees* (10%). Twelve percent (12%) served organizations with either *2001-5000 employees* or *10,000-49,999 employees*, and about six percent (6%) served organizations with *over 50,000 employees*. Data were re-coded from ten into five choices. Comparing United States census data from 2005 for employers with a payroll to the study sample, more

than three times as many US organizations had under 20 employees (90%), half as many US organizations had 21 to 500 employees (10%), and tiny fraction as many US organizations had over 500 employees (0.3%) as compared to the study sample (United States Census Bureau, 2005).

Table 7. Organization Demographics by E-Coaching Level

	Levels of E-Coaching Usage (% of group)			Percentage of Total (N=191)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
Organization Type (recoded)				
Corporation (Not primarily a learning or e-Learning provider)	37%	28%	27%	31%
Corporation (Learning or e-Learning provider)	11%	3%	6%	6%
Consulting firm	10%	8%	14%	11%
Government or Military	7%	0%	2%	3%
College, University or K-12	19%	28%	18%	22%
Non-profit organization	8%	3%	6%	5%
Independent consultant**	7%	26%	22%	18%
Other	2%	5%	4%	4%
Organization HQ (recoded)				
USA or Canada	79%	67%	78%	76%
UK or Europe	10%	18%	10%	12%
Asia, India, NZ, AUS	6%	13%	10%	8%
Latin American, or Other	6%	3%	2%	4%
Organization Size (recoded)				
1-20 employees***	14%	36%	45%	26%
21-500 employees	23%	13%	31%	23%
501-2000 employees	18%	18%	8%	16%
2001-10,000 employees	19%	18%	12%	17%
10,001-50,000+ employees **	25%	15%	4%	18%

*=p<.05, **=p<.01, ***=p<.00

Chi-square analysis revealed significant differences by e-coaching level for organizations with 1-20 employees ($\chi^2 = 13.235$, $p=.000$, $df=2$) and 10,000-50,000 employees ($\chi^2 = 10.357$, $p=.006$, $df=2$); the larger the organization, the lower the e-coaching level. There were significant differences in organization size by WLP role ($\chi^2 = 102.716$, $p<.000$, $df=4$), with more external WLPs in smaller organizations and more internal WLPs in larger

organizations. This is not surprising since most externals are independent consultants without additional employees.

About one-third of respondents reported working primarily for a corporation not related to learning or e-learning (33%), followed by college or university (18%), independent consultant (15%), consulting firm (11%), a corporation that is a learning or e-learning provider (8%), non-profit organization (6%), other (3%), government or K-12 (3%), or military (2%). Organization type data were re-coded from ten to eight choices, shown in Table 7. Significant differences were found by e-coaching level for independent consulting organizations, with a significantly larger proportion of independent consulting organizations in the *Equal* and *High ECh* e-coaching groups ($\chi^2 = 11.227$, $p = .004$, $df = 2$). There were significant differences in organization type by WLP role ($\chi^2 = 91.802$, $p = .000$, $df = 7$), particularly for corporations, higher education and K-12, and independent consultants. As would be expected, external WLPs more often worked for consulting firms, e-learning providers, or as independent consultants, whereas internal WLPs more often came from non e-learning corporations and university and K-12 organizations.

Almost three-quarters of respondents were headquartered in the *United States* (72.3%), followed by *Europe* (7.9%), *Australia/New Zealand* (5.8%), *UK or Canada* (3.7%), *India* (1.6%), *Latin America or Asia* (1.0%). No respondents came from *Japan* or *China*, and about three percent (3.1%) were from *other* regions. Data were re-coded into four regions: USA or Canada; UK or Europe; Asia, India, NZ, AUS; Latin American, or Other. Region did affect e-coaching level.

RELATIONSHIP BETWEEN ORGANIZATION AND RESPONDENT DEMOGRAPHICS

There was a relationship between WLP role, organization size, and job focus, particularly for those who were focused on independent consulting. In practice, most independent consultants work external to an organization, and by design they are self-employed, with an organization size of “one” or very small (<20 employees). This practical assumption was reflected in the present data set. Twenty-eight respondents reported that they primarily worked for an *independent consultant* type of organization (15%). Of those 28 respondents, all but one reported their organization size at 1-20 employees, and one reported working for an organization with 51-100 employees. More than half also had a job focus as

independent consultant (57%), and about one-fifth were focused on *training and education* (18%). A big part of their job activities involved serving as a coach (mean = 4.46), delivering or facilitating face-to-face instruction (mean = 3.93), or designing or managing coaching programs (mean = 3.89). When WLPs are external, being an external consultant or coach is more likely to be their defining identity, whereas internal WLPs are likely to have many job activities.

DESCRIPTION OF INTERVIEW PARTICIPANTS

Twenty coaches participated in telephone interviews. Eleven (55%) were internal coaches, and nine were external (45%) coaches, thirteen females (65%) and seven males (35%). Fifteen coaches were from the United States (75%), two were from Canada (10%) or the UK (10%), and one was from South Africa (5%). Half of the interviewees had from one to ten years experience coaching, and half had from 10 to 20 years experience whether in an official capacity or informally. Two-fifths of coaches had some sort of certification. Four external coaches had certification in business or life coaching and one was certified as a synchronous learning expert. One internal coach had certification in 360-feedback (i.e. a performance improvement strategy that involves collecting confidential performance evaluation input from the individual, peers, superiors, subordinates, and customers), and the two franchise coaches were World Association of Business Coaches (WABC) certified registered corporate coaches. Several were members of professional organizations including the International Coaching Federation, Coachville, the American (or Canadian) Society for Training and Development, and eLearning Guild.

Five coaches worked as internal corporate coaches for companies that ranged in size from forty thousand employees to over one hundred fifty thousand employees representing finance, high tech, digital communications, and retail industries, with official job titles such as executive coach, director of instructional design, or director of human resource development. Two coaches worked for a corporation providing coaching to approximately two hundred franchise partners. Four coaches worked in higher education; two worked for university central services providing training and coaching services around instructional design and development for about one hundred to three hundred faculty, one was a university faculty member who provided coaching to approximately 20 elementary school teachers

annually participating in a year-long post baccalaureate licensure program. One coach worked for the US Coast Guard providing a combination of coaching and professional development to approximately seventy-five crew members annually for Yeoman.

Of the nine professional external coaches interviewed, four worked for coaching consulting groups, two worked as independent coach/consultants, one worked for a national nonprofit agency for teacher development providing coaching to approximately thirty teachers annually who were completing an instructional technology certificate program, one worked as an online instructor for a company providing e-learning and coaching to students around designing and facilitating online learning, and one administered an online coaching program using an online platform in which groups of unrelated individuals from various vocations participated in a group challenge or game to clarify and achieve their goals.

On average, external coaches did more e-coaching than internal coaches. Seven of the nine external coaches were considered as *High ECh*, whereas internal coaches delivered a mix of *Low* (n=5), *Equal* (n=2) and *High* e-coaching levels (n=4). For those interviewees whose primary job was to serve as a coach, their typical load included about a dozen clients at once, ranging from 4 to 30 clients. However, those who provided coaching as a supportive component of instruction served upwards of 100 protégés at any given time.

HOW IS E-COACHING USED IN ORGANIZATIONS?

This section addresses the first research question. How is e-coaching used in organizations today, based on quantitative and qualitative survey data of workplace learning professionals, plus interviews with twenty e-coaches? This description begins with the extent of e-coaching today, topics, audiences, and purposes for coaching, reasons organizations use e-coaching, and technologies they use for coaching. Next, the researcher presents findings about e-coaching practices, including who provides coaching, how e-coaching is positioned among other training and development efforts, how coaching is evaluated, perceived success, benefits and challenges of e-coaching, and effective e-coaching strategies, according to coaches.

To What Extent Is E-Coaching Happening in Organizations?

Several variables were used to examine the extent of e-coaching in organizations including *amount*, *priority*, and *success* of coaching in general, *e-coaching level* (defined earlier), and expected *future use of e-coaching*. Overall, data from this sample show that coaching was a high priority and some coaching was happening, mostly with low levels of e-coaching (i.e., primarily or entirely face-to-face) though future use of e-coaching was expected to rise. Current coaching efforts received only satisfactory reviews, but those in *High Ech* organizations reported significantly greater coaching success. Amount and perceived coaching success, plus future use of e-coaching all had a significant positive relationship with e-coaching level, but priority did not. Quantitative and qualitative findings are presented below.

AMOUNT OF COACHING IN GENERAL

Respondents selected one choice indicating how much coaching was happening in the organization: *a lot* (75% or more employees are engaged in coaching), *a little* (fewer than 15% of employees are engaged in coaching), or *some* coaching. Almost half (45%) said that *some* coaching is happening, meaning that between 15% and 75% of employees were engaged in coaching. Chi-Square analysis revealed that significantly more organizations that reported a lot of coaching also reported higher levels of e-coaching [$\chi^2 = 6.454$, $p = .040$], with the largest proportion in the *Equal Ech* group, depicted in Figure 7. This finding is intuitive, in that it is likely easier to increase the overall amount of coaching through a mix of e-coaching and face-to-face rather than face-to-face coaching alone (see Appendix J for details).

PRIORITY AND SUCCESS OF COACHING IN GENERAL

One survey item asked respondents to rate the success of the coaching that had been happening in the last 18 months on a 5-point scale from (1), *poor*, to (5), *superior*. About two-fifths (42%) said that recent coaching efforts were *satisfactory*, one third said that coaching was *outstanding* (25%) or *superior* (8%), and the overall mean rating was just

above *satisfactory* (mean =3.16), indicating that coaching was only slightly successful.

Figure 8 depicts mean scores for coaching priority and success by e-coaching level.

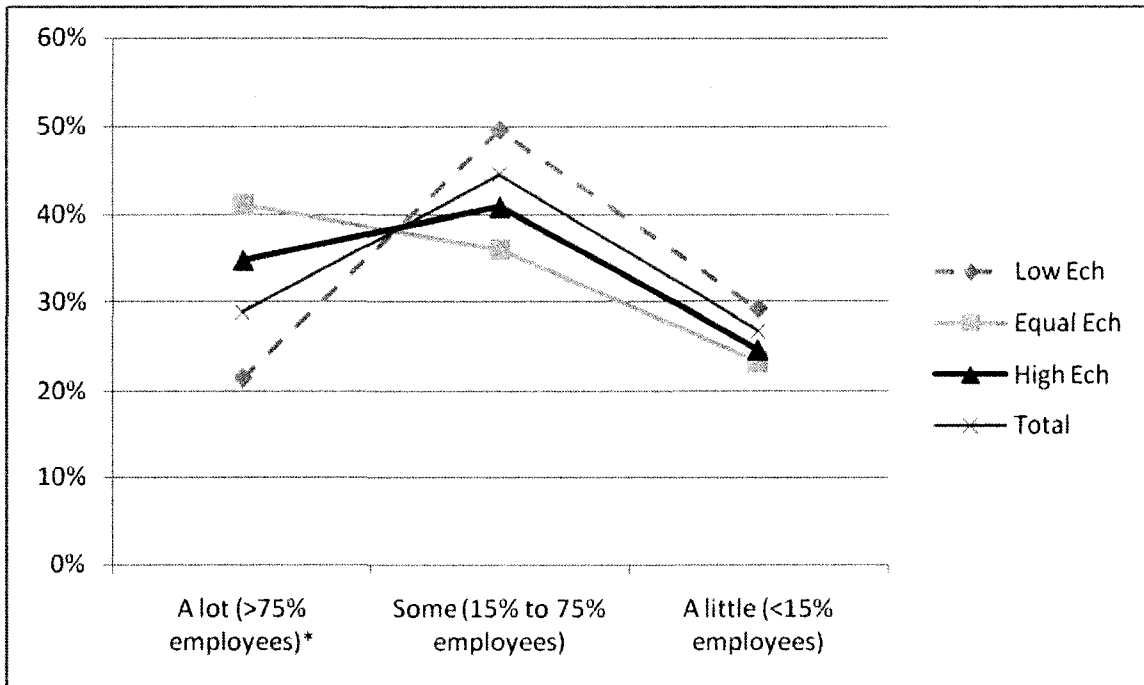


Figure 7. Amount of coaching by e-coaching level.

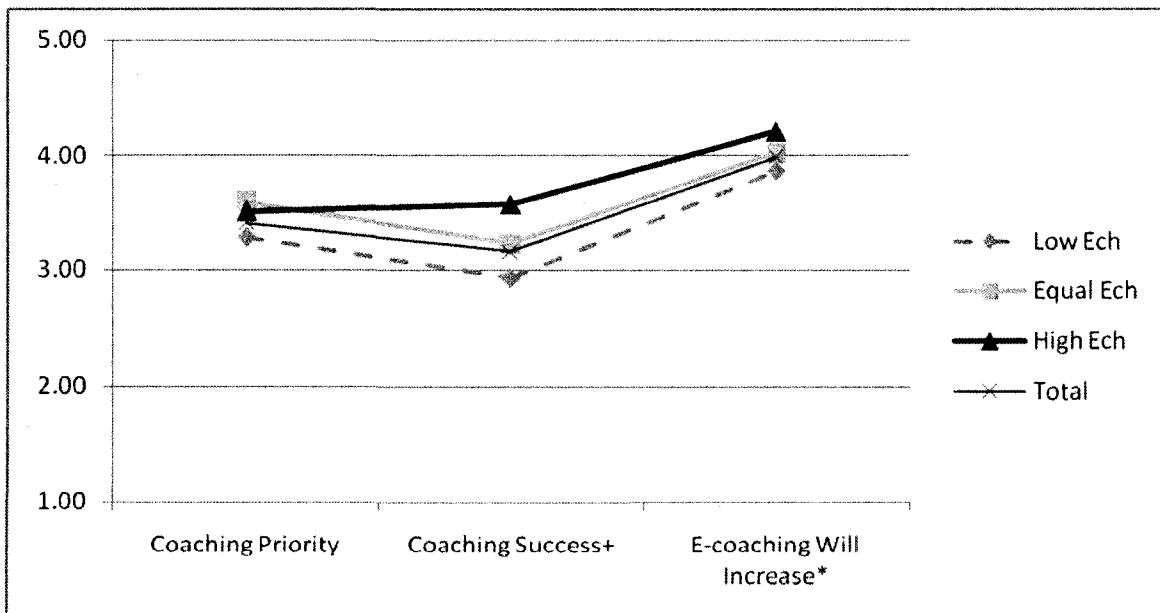


Figure 8. Coaching priority, coaching success, and increase of e-coaching by e-coaching level.

Organizations reporting greater coaching success also reported higher levels of e-coaching ($F=9.07$, $p<.00$, $df=2$), with greatest success reported by the *High ECh* group, (mean=3.57), followed by the *Equal* (mean =3.23) and the *Low ECh* groups (mean =2.96) (see Appendix J for details). Factors that affected the success of e-coaching are discussed later in this chapter. It is noteworthy that many were dissatisfied with current coaching efforts; one-quarter (25%) felt that coaching success was only *marginal*, and one (<1%) respondent rated recent coaching efforts as *poor*. Possible explanations for these low ratings are discussed in the next chapter.

Another survey item asked respondents to rate how much of a priority coaching is in the organization on a scale from (1), *not much of a priority*, to (5), *top priority*. Almost half rated coaching priority as *above average* (28%) or as a *top priority* (19%). One-fifth rated coaching priority as *low* (14%) or *not much of a priority* (6%). The mean rating was slightly above average (mean =3.40), indicating that coaching was at least somewhat of a priority for participating organizations (see Appendix J for details).

FUTURE USE OF E-COACHING

Respondents rated the extent to which they believed the use of e-coaching would increase or decrease in the next 18 months, on a 5-point scale from “*decrease significantly*” to “*increase significantly*,” plus a choice for “*don’t know*.” About four-fifths of survey participants ($n=160$) completed this item. Almost three-quarters said that e-coaching would increase *moderately* (44%) or *significantly* (26%), and about one-quarter said that e-coaching use would *stay the same* (24%); only two respondents (1%), both in the *Low* and *Equal ECh* groups, said that e-coaching would *decrease moderately*. Excluding the five percent who reported that they *don’t know* ($n=8$), Figure 8 shows that mean scores for all three e-coaching levels were above average, indicating that all groups predicted a future increase of e-coaching, with the *High ECh* group expecting a significantly greater increase than the other groups (mean=4.21) ($F=3.08$, $p<.05$) (see Appendix J for details).

For What Purposes Is E-Coaching Being Used?

Three survey items asked respondents to rate how often coaching in general was used to address certain *audiences*, *topics*, and *purposes*, and on a 5-point scale, from (1), *rarely*, to

(5), *typically*. Another survey item asked respondents to rate *reasons for using e-coaching* specifically, on a 5-point scale from (1), *not a reason*, to (5), *major reason*.

In organizations doing more e-coaching, coaching was typically used to target executives and first line supervisors, whereas organizations doing less e-coaching typically used coaching to target new hires and line employees. In the *High Ech* group, coaching typically addressed leadership, management, and coaching or mentoring skills, and in the *Low Ech* group, coaching was often used to address teaching or facilitation skills. High e-coaching organizations used coaching more for realizing opportunities than to correct problem performance or as a perk for select employees.

Not surprisingly, the most typical reasons for using e-coaching in the *High Ech* group were to serve geographically dispersed employees, provide just-in-time assistance, address scheduling issues, reduce costs, and provide greater access to expertise and diverse perspectives. They also used e-coaching as a strategic advantage for the organization and to humanize virtual communications. Those in the *High Ech* group reported to a significantly higher extent than the other groups that their employees were accustomed to working virtually and people were asking for e-coaching. Details of quantitative and qualitative findings are presented below.

AUDIENCES FOR COACHING

Figure 9 depicts the mean scores for nine possible coaching audiences, listed by e-coaching level and sorted by *High Ech* mean scores. In organizations with high levels of e-coaching, coaching was most typically used to target *executives* (mean=3.14), *first line supervisors* (mean=2.0), and *senior or mid-level managers* (mean=2.96) (see Appendix J for details). In contrast, interview data indicated that executive clients often prefer, require, or demand more face-to-face coaching. However, interviewees also said that executives are often busy and can only stay in touch virtually. One explanation for this inconsistency is that respondents in the *High Ech* group were primarily external independent consultants with a coaching focus, and thus more likely to be contracted to provide executive coaching.

Organizations that reported higher levels of e-coaching used coaching significantly more often to target women ($F=5.78$, $p<.01$) and expatriates working overseas ($F=4.22$, $p<.05$) than in organization where less e-coaching was happening. These findings support

published literature that suggests that e-coaching offers the benefits of reaching teleworkers and providing social equity for women. Surprisingly, new hires ($F=5.00$, $p<.01$) and line employees ($F=4.32$, $p<.05$) were the most typical coaching audiences in the *Low Ech* group and overall, significantly more so than in organizations reporting higher e-coaching levels. It makes sense that more face-to-face rather than e-coaching was used with new hires to acculturate them and to establish personal relationships and organizational commitment (see Appendix J for details).

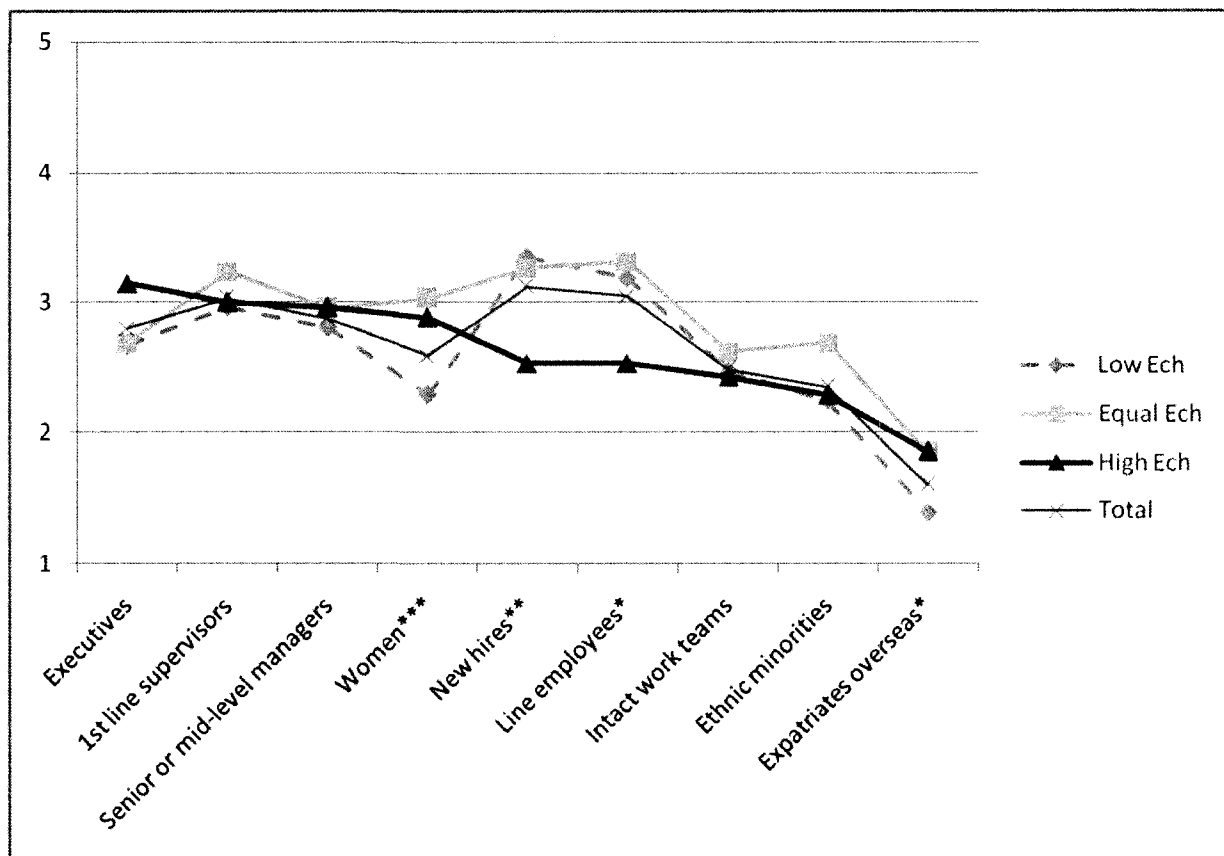


Figure 9. Coaching audiences by e-coaching level (sorted by *High Ech* mean).

TOPICS FOR COACHING

Respondents rated how often coaching addressed ten possible topics. Figure 10 presents the mean scores for each topic, listed by e-coaching level and sorted by *High Ech* mean scores. In organizations with high levels of e-coaching, coaching was most typically used for *leadership* (mean=3.57), *management* (mean=3.55), and *coaching or mentoring skills* (mean=3.35) (see Appendix J for details). Likewise, interviewees commonly coached

for business leadership and management skills such as goal setting, time management, communications, conflict resolution, increasing influence, interpersonal effectiveness, presentation skills, and career transition.

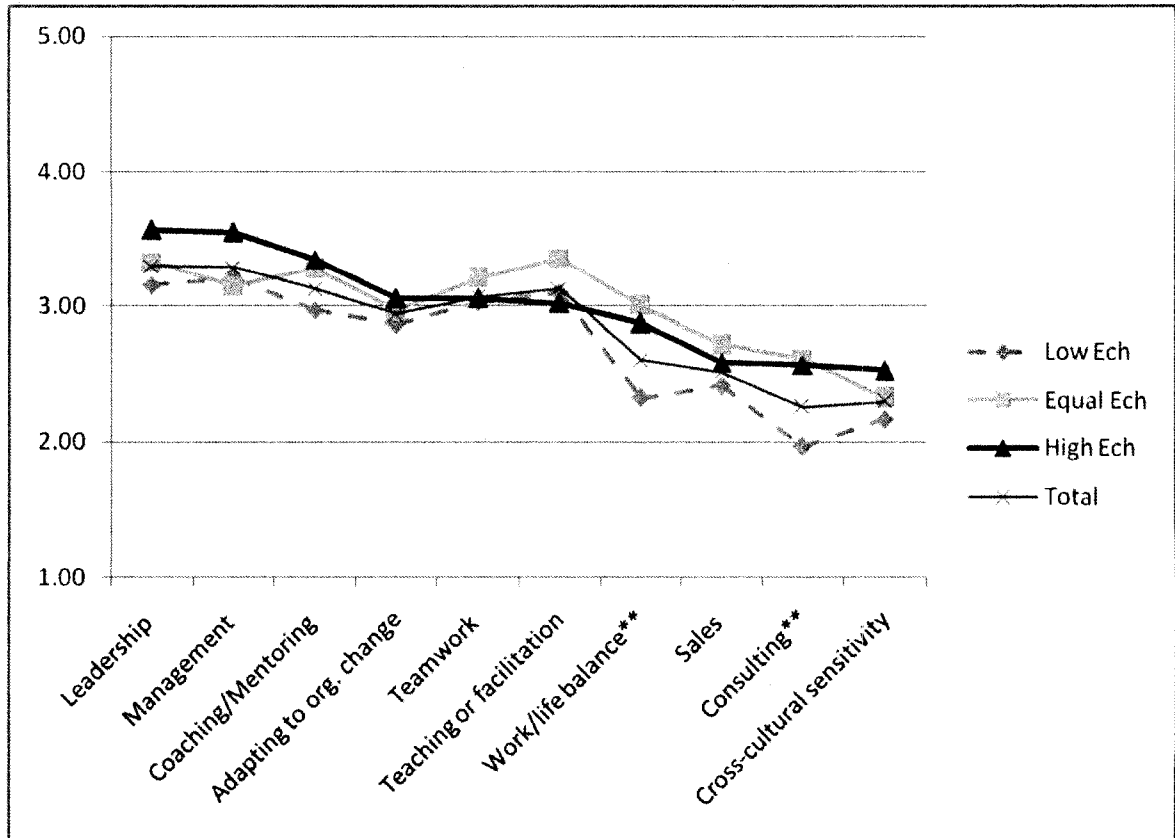


Figure 10. Coaching topics by e-coaching level (sorted by *High Ech* mean).

Teaching/facilitation skills was the top topic in the *Equal Ech* group (mean=3.36), and ranked second overall. Several coaches and survey respondents coached for instructional design and pedagogy, online facilitation, and technology integration and stewardship in schools. Other topics reported by this study sample included coaching in technical areas such as new policies/procedures, customer service, career guidance, onboarding for new hires, clinical healthcare competencies, linguistic techniques, public speaking, and writing skills. Those in the *Low Ech* group were significantly less likely to use coaching for *balancing career, personal life, stress* ($F=4.78, p<.01$) and *consulting skills* ($F=5.47, p<.01$).

PURPOSES FOR COACHING

Table 8 presents the mean scores for ten possible coaching purposes, listed by e-coaching level and sorted by *High Ech* mean scores. Organizations in the *High Ech* group used coaching primarily to maximize performance by providing task support (mean=3.80) or improving training transfer (mean=3.57). They also used coaching significantly more so to *accelerate time to competency* ($F=3.78, p<.05$) and *boost top or high-potential performers* ($F=3.17, p<.05$), whereas in the *Low Ech* group the second most typical purpose for coaching was to *improve low, mediocre, or problem performers* (mean=3.21).

Table 8. Purposes for Coaching By E-Coaching Level (Sorted by *High Ech* Mean)

Coaching Purposes	Levels of E-Coaching Usage			Total n=191 Mean
	Low Ech n=103 Mean	Equal Ech n=39 Mean	High Ech n=49 Mean	
Provide assistance on a specific task or assignment.	3.43	3.64	3.80	3.57
Accelerate individuals' time-to-competency.*	3.06	3.31	3.65	3.26
Improve the application of skills learned in training.** ($F=6.78, p<.01$)	2.99	3.69	3.57	3.30
As a strategic advantage for the organization.**	2.65	3.08	3.57	2.97
Improve low, mediocre, or problem performers.	3.21	3.54	3.41	3.33
Boost top or high-potential performers.*	2.77	3.08	3.39	2.99
Add a human component to virtual courses or communications.***	2.36	3.28	3.29	2.79
Prepare for promotion or future job demands.	2.81	3.15	2.98	2.92
Increase cross-functional capabilities.	2.80	2.62	2.82	2.76
As a perk or luxury available only for certain employees.	1.86	2.00	1.96	1.92

*= $p<.05$, **= $p<.01$, ***= $p<.00$

Likewise, external coaches in the present study focused more on helping top performers such as executives, senior managers and other leaders continuously improve and get to the next level, rather than correcting problems. One interviewee suggested that internal coaching tended to focus on correcting problems whereas external coaching was more often used to realize performance opportunities. In her experience, her internal coaching was often done as a mandatory debriefing to accompany the 360 performance assessment process,

involving “more of a gap approach versus an appreciative approach” which she used in her external coaching [ID# 12].

Like others, high e-coaching organizations did not typically use coaching as a perk for a select few (mean=1.96), although they did use coaching significantly more so *as a strategic advantage for the organization* ($F=7.53, p<.01$) than organizations with lower levels of e-coaching. One survey respondent used e-coaching to “recruit and retain top talent [and] manage risks.” Another veteran external coach saw a shift taking place; whereas coaching had once been primarily “a secret weapon” for executives or “a last ditch effort” for problem performance, she saw coaching increasingly being deployed more broadly “as a business imperative to drive the company towards success,” [ID# 18].

High e-coaching organizations used coaching significantly more often to *add a human component to virtual courses or communications* ($F=10.67, p<.00$). A few survey respondents said they used e-coaching to increase job satisfaction, increase the bond between manager and employee, and “provide encouragement/praise to sustain motivation.” Many of those interviewed felt strongly that humanizing the distance experience was critical to e-coaching success, and they did so using a variety of e-coaching tools and strategies described later in this chapter.

REASONS FOR E-COACHING

Table 9 presents the mean scores for thirteen possible reasons why organizations might use e-coaching, listed by e-coaching level and sorted by *High ECh* mean scores. Organizations with high levels of e-coaching mostly used e-coaching to *serve geographically dispersed employees* (mean=4.41), significantly more so than other groups ($F=5.03, p<.01$), and to *provide just-in-time answers for immediate needs* (mean=3.69), a factor that had a significant positive relationship with perceived e-coaching efficacy discussed later in the chapter. These findings are in line with interviews and other survey data showing that the *High Ech* group typically used coaching to target expatriates working overseas and provide task support.

Several coaches who coached in support of a course or training program frequently received calls for just-in-time assistance as learners tried out their new skills in the field. Likewise, some coaches who typically focused on longer-term development occasionally

encountered emergent situations as part of the coaching process. One external coach described how he used IM and phone calls to provide just-in-time assistance which he felt was the best way to enhance learning and performance.

One of the concepts I use is just-in-time assistance. It could be help, coaching, facilitation, consulting, but it's just-in-time because that is the most effective use of our resources. In context, that's where the learning takes place, so I encourage people to call me when they're having problems because that's when they're going to figure it out. That's when it's going to stick. [ID# 5].

Table 9. Reasons for E-Coaching By E-Coaching Level (Sorted by High Ech Mean)

Reasons for E-Coaching	Levels of E-Coaching Usage			Total n=191
	Low ECh n=103	Equal ECh n=37 (2 missing)	High ECh n=49	
	Mean	Mean	Mean	Mean
To serve geographically dispersed employees.**	3.71	4.17	4.41	3.98
To provide just-in-time answers for immediate needs.	3.67	3.97	3.69	3.73
To address issues of scheduling or limited availability for development activities.	3.62	4.09	3.61	3.71
To reduce costs.	3.07	3.49	3.55	3.27
To provide greater access to expertise and multiple perspectives.	3.17	3.66	3.52	3.35
Our people are accustomed to working virtually, and e-coaching is a natural fit.***	2.42	3.20	3.27	2.79
To reduce time in courses or classes.	2.98	3.60	3.02	3.11
To expand the role of instructors/experts.	2.83	3.29	2.88	2.93
Our people are asking for e-coaching.**	2.00	2.54	2.84	2.32
To lessen disruption in the workplace.	2.56	3.14	2.76	2.72
To make the coaching experience more private or confidential.**	2.08	2.63	2.73	2.35
To encourage work-related relationships between veterans and neophytes.	2.75	3.23	2.63	2.81
Others are doing e-coaching and we want to keep up.	1.80	1.89	2.00	1.87

*=p<.05, **=p<.01, ***=p<.00

Those in the High Ech group often used e-coaching to address issues of scheduling or limited availability for development activities (mean=3.61), to reduce costs (mean=3.55), and to provide greater access to expertise and multiple perspectives (mean=3.52), reasons commonly cited by interviewees as well. Those in the High Ech group used e-coaching because they had people who were accustomed to working virtually (F=8.21, p<.00) and

asking for e-coaching ($F=7.09$, $p<.01$) to a significantly greater extent than organizations where less e-coaching was happening. These compatible cultural factors had a significant influence on perceived e-coaching efficacy and the tools used for e-coaching, as discussed later in this chapter.

What Technologies and Tools Are Used and What Is Their Role in E-Coaching?

Survey respondents were given a list of twelve technologies and asked to rate how much of a role each played for delivering coaching, from (1), *no role*, to (5), *major role*. Table 10 presents the mean scores for each item by e-coaching level, sorted by *High ECh* mean. Table 11 and Table 12 (pp. 110-111) describe how interviewees used asynchronous and synchronous tools.

Table 10. Technologies Used for E-Coaching by E-Coaching Level (Sorted by *High ECh* Mean)

Technologies for E-Coaching	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
Communicating by e-mail (ASYNC)	3.95	4.11	4.31	4.07
Talking over a land line telephone (SYNC)	3.58	3.69	4.06	3.73
Sharing files electronically (RES)	3.52	3.89	3.71	3.64
Using an online system specifically meant to support, facilitate, or manage the coaching process ** (SUPP)	1.97	2.69	2.88	2.34
Using asynchronous online collaboration tools (e.g., discussion boards, Wikis, Blogs, etc.) ** (ASYNC)	1.91	2.63	2.67	2.25
Using recorded audio or video resources for coaching purposes (e.g. MP3 files, podcasts, CD's, audio/video cassettes, DVDs, etc.) (trend) (RES)	2.06	2.63	2.39	2.25
Internet telephony or voice over IP (VOIP) ** (SYNC)	1.88	2.71	2.31	2.15
Communicating via real time text messaging (e.g., live text chat, instant messaging, or short text messaging) *** (SYNC) ($F=7.95$, $p<.00$)	1.80	2.77	2.22	2.09
Recording coaching sessions for review (RES)	2.18	2.57	2.20	2.26
Using real time online collaboration tools to do screen sharing, slide presentations, shared whiteboards, application sharing, etc. (SYNC)	1.76	2.03	2.20	1.93
Searching a database of skills or 'who's who' to locate relevant experts or resources * (SUPP)	1.58	2.09	2.00	1.79
Communicating through videoconferencing (e.g., web-based, ISDN, etc.) (trend) (SYNC)	1.88	2.43	1.92	1.99

*= $p<.05$, **= $p<.01$, ***= $p<.00$

The tools that played the most major roles in the *High ECh* group and overall were *e-mail* (mean=4.31), *land line telephone* (mean=4.06), and *sharing electronic files* (mean=3.71); interviewees commonly cited these tools as well. The *High ECh* group reported significantly higher use of *an online system specifically to support, facilitate, or manage the coaching process* ($F=7.84, p<.01$), and *asynchronous online collaboration tools* ($F=7.80, p<.01$). These differences by e-coaching level could be explained by the fact that the *High ECh* group included many external coach consultants who were likely to use a coaching platform to support the process, and several online learning facilitators who likely used learning management systems on a regular basis.

Videoconferencing and *searching a database of who's who* played the smallest roles in the *High ECh* group and overall. Likewise, few coaches who were interviewed had used videoconferencing, though several touted the potential benefits, and nobody mentioned a database for locating expertise. Interestingly, the richest technology, videoconferencing, played one of the smallest roles, while e-mail, less media-rich, played the most major role, even more than the richer telephone. Relevant here is technology adoption theory, particularly *ease of use* and *compatibility*. Compared to videoconferencing, tools such as e-mail, telephone, and electronic file sharing are simple to use and compatible with current work practices. In a nutshell, they are familiar and thus, attractive.

The researcher clustered items into four main types of technologies and calculated four standardized composite scores by taking the average of the individual items. *Synchronous* tools included five items: telephone, voice over IP (VOIP), videoconferencing, real time text messaging, and real time online collaboration tools. *Asynchronous* tools included two items: e-mail, and asynchronous online collaboration tools. *Resources* included three items: recorded audio or video resources, sharing files electronically, and recording and archiving coaching sessions. *Support* tools included two items: an online system specifically for coaching and searching a database of “who's who.” A total composite score representing *Breadth of E-coaching* was created by averaging all twelve individual items from Table 10.

Figure 11 shows significant differences by e-coaching level for all five composite scores. *Asynchronous* technologies played the most major role across all groups (mean=3.16), followed by *resources* (mean=2.61), *synchronous* tools (mean=2.44), and *support* tools (mean=2.06). The *High ECh* group reported significantly higher use of

asynchronous tools ($F=7.72, p<.01$) and *support* tools ($F=9.03, p<.00$), (see Appendix J for details).

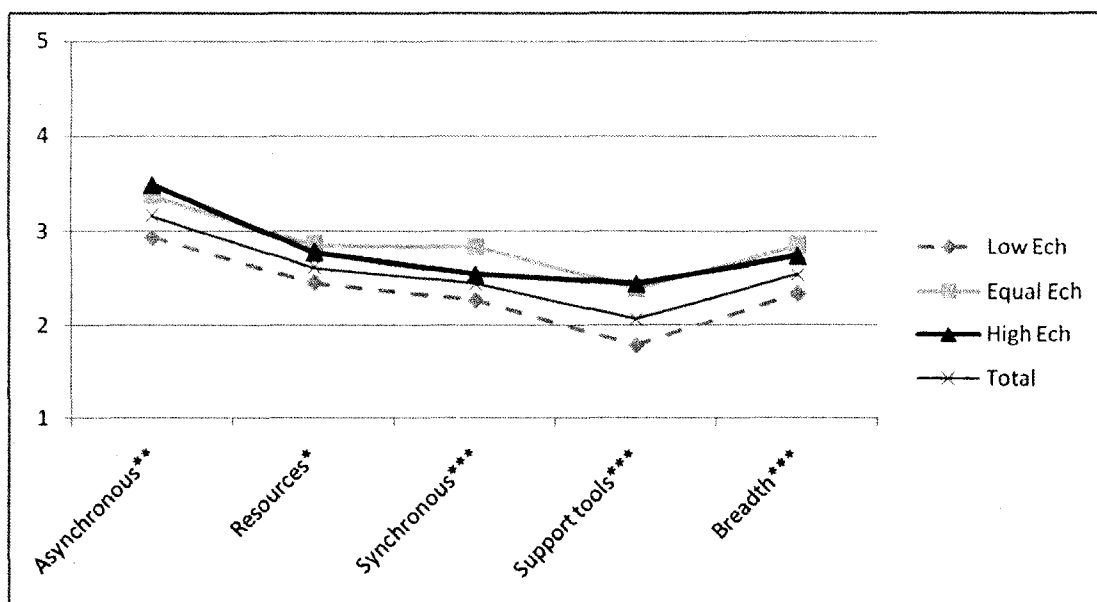


Figure 11. E-coaching technologies standardized composite scores by e-coaching level.

What Strategies, Practices, and Processes Are Used in E-Coaching?

Below is a description of e-coaching practices including *who* provides coaching, how e-coaching is positioned next to other training and development efforts, how coaching is evaluated, perceived success, benefits and challenges of e-coaching, and effective e-coaching strategies as suggested by coaches themselves.

Coaching was typically provided by internal sources, most often delivered by instructors or subject matter experts in the *High Ech* group and by an employee's direct supervisor in the *Low Ech* group. External sources provided coaching significantly more often in organizations where more e-coaching was happening. Coaches primarily served to motivate protégés, connect them with people and resources, and training them by modeling, questioning, and providing feedback.

In the High Ech group, coaching was more formal than ad hoc and used most often as just one option in a blended solution with online resources, asynchronous e-learning, and communities of practice. On the other hand, in organizations where little e-coaching was

Table 11. Asynchronous Tools for E-Coaching

Asynchronous Tool	How It Is Used
E-mail	E-mail was used by all coaches to prepare for, summarize, or touch base between scheduled sessions. One coach asked clients to prepare for sessions by sending an e-mail “describing what happened this week and what issues you’re dealing with,” which he found very beneficial “because they’re primed and I’m primed,” [ID# 5]. Rather than disrupting the flow during a call, another coach sent e-mail to her clients summarizing the coaching session to gain clarification. Another external coach used e-mail between sessions which often eliminated the need to schedule additional phone calls. “I give them quick advice or a quick bit of feedback. E-mail is really an important supplement to the telephone coaching... The majority of people don’t take advantage of it, but some do and it really helps them.” [ID# 15]
Electronic file sharing	Coaches often shared electronic files offline or during sessions. Screen shots, text documents, spreadsheets, and vision boards were used to clarify goals, record progress, review work product or business data, give feedback on an assessment report, or assist in a step-by-step procedure. Files were typically sent via e-mail or through webconferencing and IM programs.
Web-based coaching platforms or collaborative workspace	Several interviewees used systems such as Blackboard, and WebCT, Moodle, and MS Groove to support course management or collaborative work teams. Others used specific coaching platforms including Best Year Yet, and PRO (Producing Results Online) to track progress and goal attainment.
Video clips	<p>Interestingly, two external coaches were enthusiastic about using video clips to build rapport and human touch. One UK-based coach used a service called HelloWorld.com to create personalized “video e-mail” messages for current or prospective clients. Likewise, one American coach created brief video clips with quick business tips or discussions of common business issues, and felt that these “video post cards” were much more effective than a lengthy newsletter. Here’s what he liked about video:</p> <p>“[A marketer sent me a video clip which was] short, simple, [low] production value, but the content and the authenticity came through and I felt like I knew him... I felt that I got [a sense of trust] through that video e-mail. And I have time to watch a 1-2 minute video. Reading a 3 page newsletter –ugh – and I don’t get the personal connection,” [ID# 5].</p>
Discussion forums	A few coaches used discussion boards for action planning, personal reflection, and collaborative learning with one-on-one clients and particularly when providing group instruction and coaching. One internal coach used discussion boards to virtually “drop in” on the discussions of franchise partners to learn about their concerns, challenges, and success strategies. “It’s a good tool for finding out what their hot button is on a daily basis,” [ID# 19].
Archived slide presentation	A few participants used programs such as Camtasia or others to create digital assets for instruction and coaching. The coach would record a narrated “live” slide presentation and then make it available to view on demand by participants or by those who were unable to attend a webconference.

Table 12. Synchronous Tools for E-Coaching

Synchronous Tool	How It Is Used
Webconferencing	<p>One quarter of interviewees reported that they used synchronous systems that enabled webconferencing or live collaboration and communication such as Macromedia Breeze, Centra Symposium, Horizon Wimba, WebEx, GoToMeeting, Convoq's ASAP, Windows NetMeeting or Communicator, or a home grown' system. Typically, coaches used these systems to walk through a slide presentation or view a document, website, or other computer screen while talking over a regular phone line. Some of them also used the whiteboard, application sharing, text chat, instant messaging, live video, and other built-in components.</p> <p>Typically, webconferencing was used in group training for content presentation, discussion, practice, and feedback. One coach/trainer had her students practice facilitating their own online class session through the webconferencing system. She used instant messaging to provide brief, immediate feedback, and used the whiteboard and a phone call just after the live session for more in-depth feedback.</p> <p>Webconferencing was also used with individuals for in-depth feedback on a performance assessment report or to role-play skills such as time-management or confronting difficult employees.</p>
Voice over IP (VOIP)	<p>A few coaches used Skype, Yahoo, or other web-based systems for two-way audio conferencing (e.g., VOIP) through the internet with little or no cost. Though much more affordable than long distance telephone, they all felt that VOIP systems still lacked quality and ease of use. For example, when using VOIP for webconferencing participants must take turns speaking, often with delay, which prohibits free-flowing conversation. As the technology matures, VOIP will be a natural tool for e-coaching.</p>
Instant Messaging (IM) and Live Text Chat	<p>Several coaches used IM and text chat, sometimes alone but mostly in combination with e-mail and phone coaching. A few coaches used IM simply to check if the other person was available for a phone call. An external coach/consultant found IM much more free-flowing and useful than e-mail.</p> <p>"The thing about IM is that you don't complete a full thought, you're sort of thinking out loud. And when you think out loud with IM, you can banter around ideas and they're sort of taken at face value or lighter. You can read between the lines and see these parallel conversations going on which allows you to adjust the meaning based on feedback, versus e-mails which are like fire and forget it. [IM] is very live and interactive...IM seems like it's less but in some ways it's more." [ID# 5].</p>
Screen sharing	<p>Several coaches used screen sharing to demonstrate how to navigate online resources or use a specific software application, or to simultaneously review digital documents. One survey respondent used the telephone and screen sharing in Windows NetMeeting to review a performance assessment document with her client. She found it quite effective "in a more personal and engaging manner than via e-mail or a phone call," and recommended enhancing the experience by adding video to show facial expressions and body language.</p>

happening, coaching was typically stand alone, but when it was blended, it was typically combined with face-to-face instruction. In the *High Ech* group, coaching efforts were typically evaluated by looking at protégé satisfaction, performance improvement, and organizational results, and data was typically collected during the coaching engagement. As one might expect, e-coaching was more often used as an alternative to face-to-face coaching rather than to do something altogether new. Coaches suggested that e-coaching for groups is a new avenue worth exploring. Details of quantitative and qualitative findings are discussed below.

COACHING SOURCE

Survey respondents rated how often eight possible sources provided coaching, from (1), *rarely*, to (5), *a typically*. Figure 12 presents the mean scores by e-coaching level. In organizations with high levels of e-coaching, coaching was most typically provided by an *internal instructor or facilitator* (mean=3.29), an *internal subject matter expert* (mean=3.16), the *employee's direct supervisor/manager* (mean=3.12), or an *external instructor or facilitator* (mean=3.04). These rankings differ from rankings by the total sample. For instance, a direct supervisor was the most typical coach overall and in the *Low Ech* group, and peer coaching was ranked fourth most typical coaching source overall, but second to last in the *High Ech* group (see Appendix J for details).

Those in the *High Ech* group reported significantly more coaching done by an *external instructor or facilitator* ($F=4.55$, $p<0.05$), *external subject matter expert* ($F=5.57$, $p<.01$), and *two or more coaches for one employee* ($F=4.61$, $p<.05$) than other groups. These results are not surprising, as one might expect these types of coaching relationships to be facilitated or supported through e-coaching more so than face-to-face. In contrast, one would expect coaching provided by direct supervisors or managers, internal instructors, internal subject matter experts, and employee's peers to be delivered face-to-face rather than virtually.

One-to-Many: Group Coaching

Several interviewees talked about the benefits of using e-coaching for group coaching. Their interest was to improve motivation and accountability, increase social

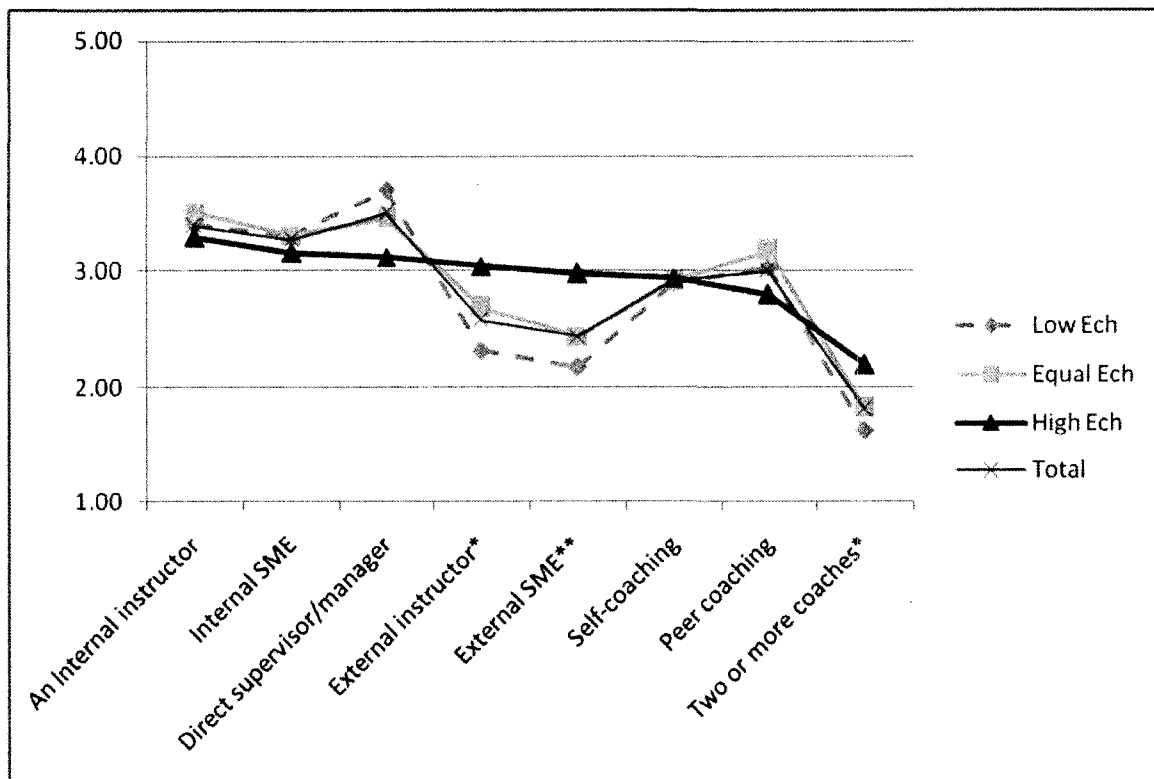


Figure 12. Coaching source by e-coaching level (sorted by *High Ech* mean).

learning, “build & support a learning community,” “expand relationships between offices,” and gain greater insights about the individual in context.

A veteran external coach found group coaching to be more effective than individual coaching because it allowed her to observe the protégé in relation to other colleagues. One survey respondent described the use of discussion boards for e-coaching, which were “kept public so that all members of the cohort may interact and benefit from the experiences of their peers” [ID# 79]. A coach for franchise partners said group phone calls had been effective because “the peer pressure is the piece that makes folks step up to the plate. That's the accountability piece. No one wants to get on the phone and say, ‘Oh, I didn't do anything.’” [ID# 19].

Another coach described an online program he had developed to deliver group coaching in an online competitive game format called “The Game of Games.” In this online group competition, participants provided accountability by reviewing and assessing each others' progress and group contribution. For instance, after an assigned activity, “the group will vote on 4 categories: (1) proficiency towards goal; (2) how much they've helped their

colleagues; (3) how much they've been creative; and (4) how much they've made the game fun," [ID# 1].

COACH ROLES AND ACTIVITIES

Respondents rated how often coaches played each of eight different roles, from (1), *rarely*, to (5), *a typically*. About four-fifths of participants (n=160) completed this item in part two of the survey. Figure 13 depicts the mean scores by e-coaching level, sorted by *High Ech* means. In the *High Ech* group and overall, coaches most typically played the role of motivator who serves as a sounding board or accountability partner, integrator who connects to useful people, tools, resource, and trainer who presents new information, models, asks questions, and provides feedback. Rarely did coaches serve as disciplinarians. Rankings for the *High Ech* group and for the overall sample were identical.

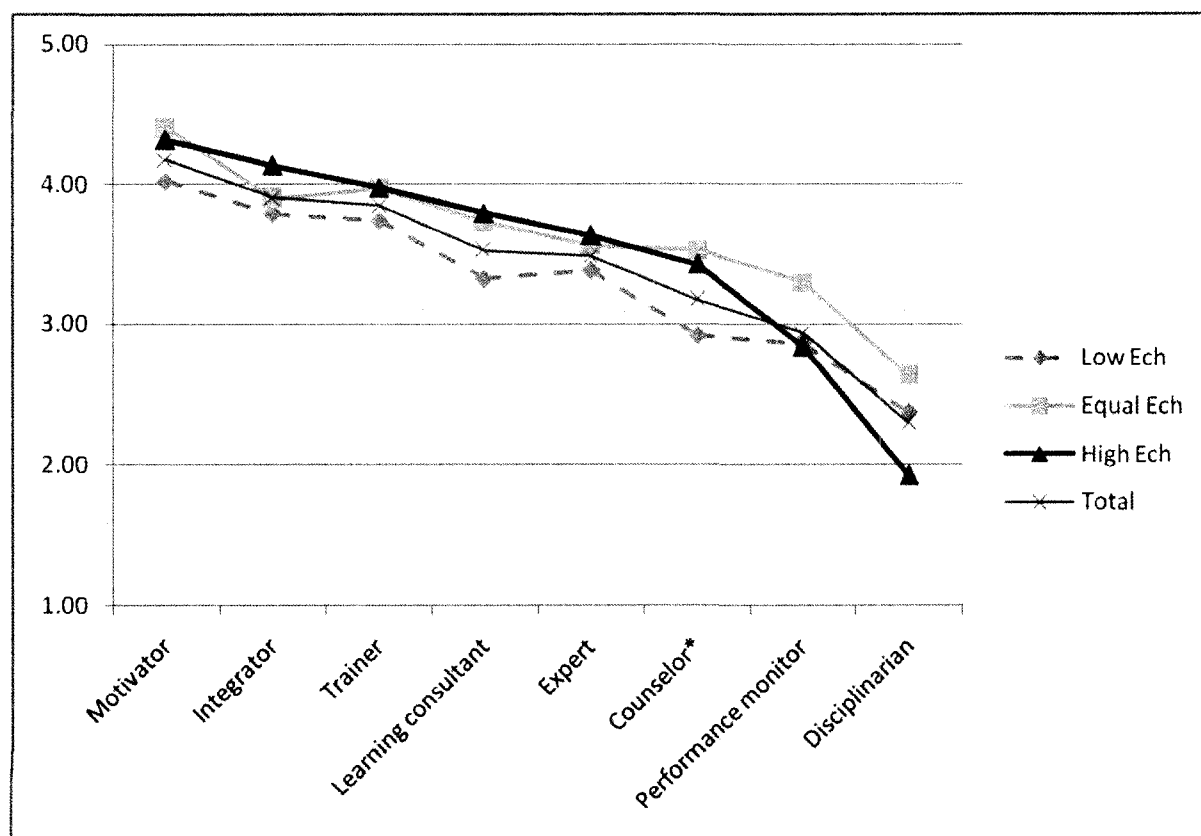


Figure 13. Coach's role by e-coaching level (sorted by *High Ech* mean).

There was a significant difference by e-coaching level for the role of *counselor* ($F=3.24, p<.05$), with the highest mean in the *Equal Ech* group, suggesting that e-coaching

facilitated coaches' ability to guide personal and professional growth more so than face-to-face alone. Furthermore, there was a trend towards significance for *disciplinarian who addresses problem employees or performance* ($F=2.77$, $p<.07$), with the *High Ech* group reporting the lowest mean (mean=1.93). This is consistent with interviewees who said that if they were called in for a disciplinary action or to address a problem employee, they would do it in person and not at a distance (see Appendix J for details). Details of the most typical coaching roles are presented below.

Motivator

The role of motivator was rated above 4.0 by all groups and cited by all interviewees for its centrality in coaching. Coaches often acted as “champion” or “advocate” by nurturing, encouraging, and praising progress. Several coaches said they checked in between sessions to boost confidence, “get them reengaged” when necessary, and add human touch or presence mostly through e-mail, and occasionally by sending cards or gifts for major accomplishments. One external coach routinely sent video e-mail messages to remind clients of her support.

Interviews emphasized the importance motivating by holding protégés accountable for their promises. Many coaches said that a protégé is not accountable to the coach, but rather to himself or herself, particularly when the coach is not a direct supervisor. Supporting this notion of self-accountability, survey respondents gave the lowest ranking to the role of disciplinarian, and no interviewees served as disciplinarians or possessed authority to enforce consequences for poor performance.

Several coaches said they served as a sounding board or confidante for protégés, especially for executives who often have “nowhere else to go” to bounce around ideas, vent frustrations, or to understand the situation more clearly from an unbiased objective party. E-coaches increased their ability to serve this role by making themselves available by phone, e-mail, and instant messaging.

Integrator

Ranked second in the *High Ech* group and third overall, several e-coaches confirmed the importance of serving as an integrator who connects the protégé to useful people, tools, and resources. Several coaches used e-mail to share useful resources such as links to online

articles or videos, or to send documents, spreadsheets, and templates. A few coaches regularly e-mailed electronic newsletters with tips, resources, articles, and upcoming events.

Trainer

Several interviewees provided e-coaching for targeted practice and feedback, often in conjunction with face-to-face instruction or e-learning. A few coaches conducted role-playing exercises by phone. One coach worked with call center associates to complete hands-on lab exercises followed by role-playing by phone. An online facilitator/coach used webconferencing sessions so students could rehearse the facilitation of their own online class and get instructor and peer feedback. Several coaches said they served as trainers specifically at the beginning of the coaching engagement to educate the protégé on the coaching process and model effective communication strategies. One e-coach used a slide presentation to explain the process and set expectations at every online kick-off session.

Related to the roles of integrator and trainer was the role of learning consultant, which ranked fourth in the *High Ech* group. Some interviewees served this role by identifying professional development opportunities and suggesting learning and development paths using assessment tools such as personality inventories or 360-assessment feedback.

Performance Monitor

Only a few interviewees used coaching to assess and monitor performance. Two franchise coaches monitored financial reports, and visited onsite annually to observe performance and ensure compliance. One coach working with telephone associates monitored customer satisfaction scores, and conducted virtual observations by listening in on customer calls and remotely logging in to the associate's computer desktop to see how they were using performance support resources. One survey respondent used e-coaching for Kirkpatrick's "Level 3 evaluations" to measure performance outcomes. This may be explained by the fact that about sixty percent of respondents in the *High Ech* group were external workplace learning professionals, meaning that they held no authority over their clients. Likewise, most interviewees were not responsible for coaching direct reports.

HOW COACHING IS POSITIONED

Three survey items looked at how coaching was positioned in the organization, whether coaching was more formal or ad hoc, how coaching was blended with other development efforts, and how face-to-face and e-coaching were used together. Quantitative and qualitative findings are discussed below.

Formal or Ad Hoc

Survey respondents rated how often coaching was done informally or formally, on a scale from (1), rarely, to (5), a typically. In the High ECh group, coaching was more typically formal or planned, part of an explicit coaching program or initiative (mean=3.80), and less typically ad hoc and informal, part of day-to-day activities, not part of a coaching program or initiative (mean=2.82). Figure 14 shows significant differences by e-coaching level: the higher the level of e-coaching, the more formal the coaching effort ($F=7.27, p<.01$), and the lower the level of e-coaching, the more informal the coaching effort ($F=3.37, p<.05$). Again, this finding may be explained by the large percentage of external workplace learning professionals in the High Ech group, in which case the coaching would be more of a planned, contracted service rather than part of a manager's day to day activities on the job (see Appendix J for details).

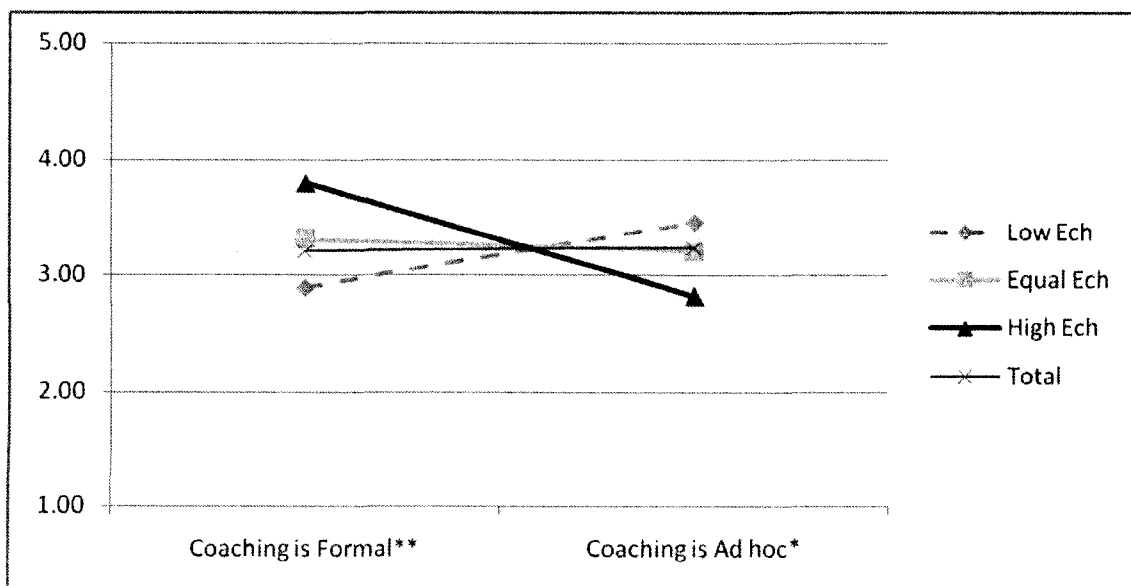


Figure 14. Coaching programs are formal or ad hoc by e-coaching level.

E-Coaching to Do New Things or as an Alternative to Face-to-Face

Respondents rated three items about how e-coaching was used in relation to face-to-face coaching on a scale from (1), rarely, to (5), a typically. Figure 15 shows that in the High Ech group, and overall, e-coaching was used more typically as an alternative way to deliver coaching that would have otherwise been done face-to-face (mean=3.82) ($F=20.62, p<.00$), and less typically to do different things that may have never been done with face-to-face coaching (mean=3.33) ($F=18.18, p<.00$), significantly more so in the High Ech group.

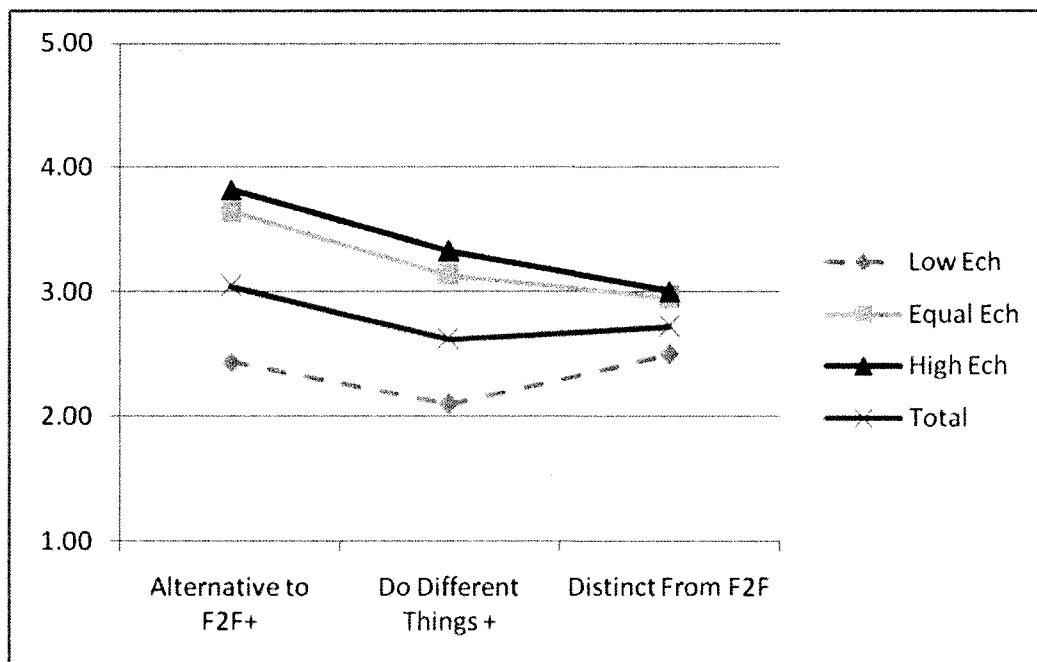


Figure 15. How e-coaching is used relative to face-to-face coaching by e-coaching level.

Interviews revealed similar trends. Most coaches used e-coaching to supplement face-to-face coaching by increasing touches between regular face-to-face sessions with e-mail, phone calls, IM, or webconferencing, or as an alternative when face-to-face coaching was not possible. A few coaches felt that using two-way live video was like being there in person, and provided an adequate alternative to face-to-face meetings (see Appendix J for details).

Stand Alone or Part of a Blend

Respondents selected one choice indicating whether coaching was most typically provided as a *standalone* strategy, *just one option* in a blended solution, or *the centerpiece* of

a blend. Overall and in the *High Ech* group, more than half (53%) said that coaching was *just one option in the blend*, over one-quarter said coaching was *the centerpiece of the blend* (27%), and about one-fifth said coaching was *stand alone, not integrated in a blend* (20%). Figure 16 shows that the *Low Ech* group was significantly more likely to provide *stand alone* coaching that is not integrated in a blend ($\chi^2 = 6.419, p < .05$) (see Appendix J for details). Based on interview data, when coaching was used as part of a blend, it was typically used to improve training transfer by helping individuals overcome hurdles and practice in the workplace. When coaching was used in a standalone mode, it was intended to boost performance and achieve individual goals.

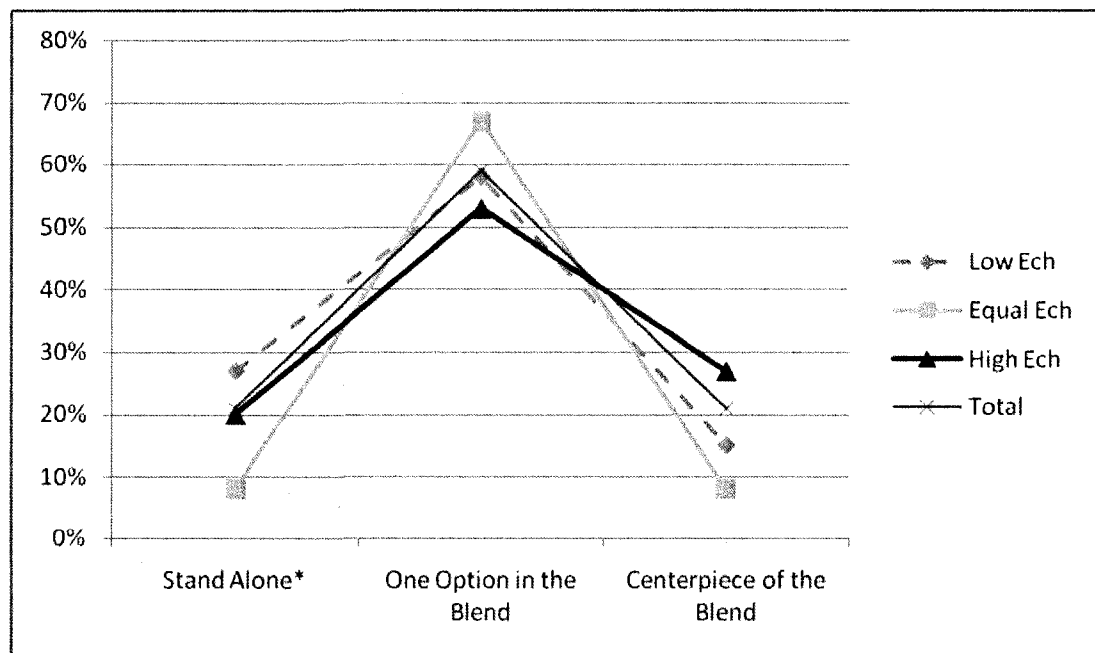


Figure 16. Coaching positioned in the blend by e-coaching level.

Blended Learning Elements Used with Coaching

Respondents rated how often coaching was combined with eight possible training and performance improvement events, resources, and tools as part of a blended learning solution on a scale from (1), *rarely*, to (5) *typically*. Figure 17 shows significant differences by e-coaching level for five blended learning elements (see Appendix J for details). In the *High Ech* group, coaching was most typically blended with *online references, resources, or learning materials* (mean=3.71) ($F=5.99, p < .01$), *asynchronous e-learning modules* (mean=3.16) ($F=6.33, p < .01$), and *communities of practice* (mean=3.10) ($F=3.56, p < .05$),

with significant differences by e-coaching level. Those in the *High Ech* group blended coaching with *face-to-face classroom instruction* significantly less often than other groups ($F=10.53$, $p<.00$). Several interviewees described their coaching as part of blended solutions that may have included formal and informal instruction, face-to-face and online experiences, online communities, individual and group activities, and EPSS tools to improve training transfer, keep students motivated between class sessions, or to provide post-training refresher or just-in-time assistance.

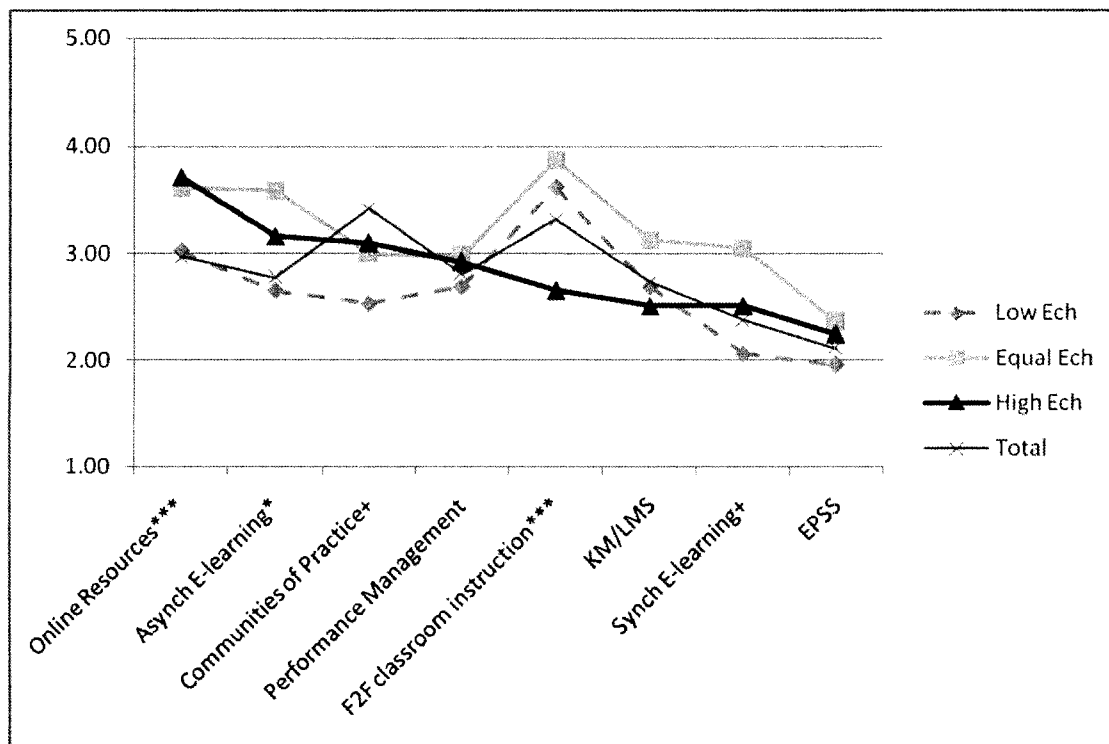


Figure 17. Blended elements by e-coaching level (sorted by *High Ech* mean).

HOW COACHING IS EVALUATED

Respondents reported whether or not the effectiveness of coaching programs and services was measured. Out of 160 respondents who answered this question, just over one-third (37%) said “Yes,” about two-fifths (43%) said “No,” and a substantial amount (20%) were not sure. A Chi-Square analysis showed no significant differences by e-coaching level for whether or not coaching was evaluated. Those who answered “Yes” ($n=59$) rated two additional questions about *what* was measured and *when* evaluation occurred on a scale from (1), *rarely*, to (5), *typically*. Figure 18 shows evaluation measures by e-coaching level, with no significant differences between groups (see Appendix J for details).

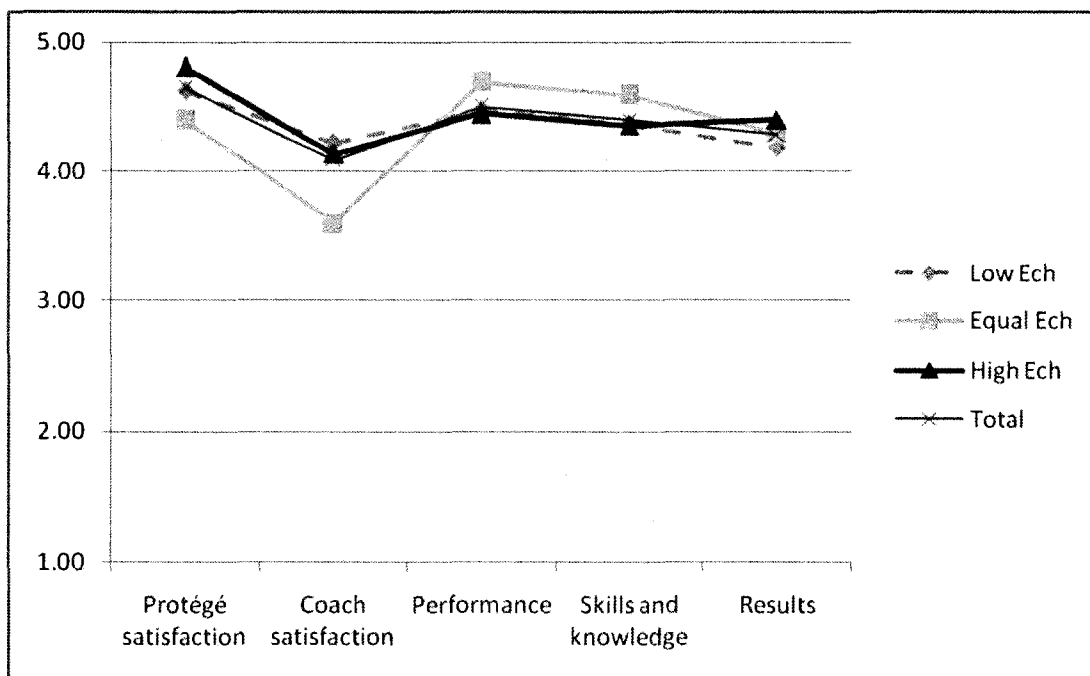


Figure 18. Evaluation measures by e-coaching level.

What Is Measured

Respondents overall gave very high ratings (greater than 4.0) to all five possible outcomes which represented Levels 1 through 4 on “Kirkpatrick’s Levels of Evaluation” (Kirkpatrick, 1998). These findings indicate a broad evaluation effort for those who were conducting evaluation. The *High Ech* group most typically measured whether *those being coached have a positive experience* (Level 1) (mean=4.82) and whether *performance improves* (Level 3) (mean=4.45), followed by whether *there is a positive impact on organizational results* (e.g., increased sales, safety, customer satisfaction, etc.) (Level 4) (mean=4.41), *new skills or knowledge are acquired* (Level 2) (mean=4.36), and *coaches have a positive coaching experience* (Level 1) (mean=4.14).

These findings were echoed by interviewees and supported the published literature on training evaluation which shows that reactions are more likely to be measured than results or accomplishments. Interestingly, in all groups, respondents reported that performance (Level 3) was more typically measured than the skills and knowledge outcomes (Level 2). This finding puts a premium on workplace practice, where organizations are often mostly focused on performance improvement and what a person can do.

The survey did not ask directly about evaluation of coaches. However, it can be inferred that protégé satisfaction, performance improvements, and results are correlated with coach performance. One survey respondent reported that “coaching supervisor evaluations” were used. A director/coach at a large global financial said that processes and tools were in place that allowed upper management to assess whether or not managers were coaching as expected, and how satisfied associates were with the coaching they were receiving.

We’re using a simple rating checklist. Unit managers are able to apply the effectiveness rating on how they felt that managers responded to each key competency as they coached associates. There’s a sign off procedure to ensure it gets done. For a couple of years now, associates were saying that they were not getting enough coaching. Our associates are certainly asking for it. [ID# 16].

When Measurement Occurs

Respondents rated how typically they evaluated coaching at four points in time: before, during, after, or well after the coaching concluded. In the *High ECh* group, evaluation most typically occurred *during* (mean=3.68), *after* (within 3 months) (mean=3.59), or *before* coaching (mean=3.41), and least typically occurred *well after* coaching (4 months or more later) (mean =2.41). In contrast, the *Low ECh* group most often measured within three months *after* the coaching engagement had concluded (mean=4.00).

How Successful Is E-Coaching?

Four quantitative measures addressed the research question, how successful is e-coaching in the views of workplace learning professionals and coaches? Overall, there were positive attitudes towards e-coaching, which does not surprise since respondents volunteered to participate in this web-based survey and were therefore at least interested in e-coaching and somewhat tech-savvy. Quantitative data and qualitative findings about the benefits, challenges, and effective e-coaching strategies are presented below.

PERCEIVED EFFICACY AND BENEFITS OF E-COACHING

One survey item asked respondents to rate their agreement with three statements about e-coaching benefits and potential, advantages that e-coaches have or conventional coaches, and belief that there are some situations in which coaching can only be done effectively in person, face-to-face, on a 5-point scale from (1), strongly disagree, to (5), strongly agree. The score for the item asking about situations that require face-to-face

coaching was reversed so that a larger score indicated disagreement with the statement and thus a more positive belief about the viability of e-coaching. A standardized composite measure of total perceived e-coaching efficacy was created by calculating the average rating across these three items. Figure 19 presents data for these four items by e-coaching level (see Appendix J for details).

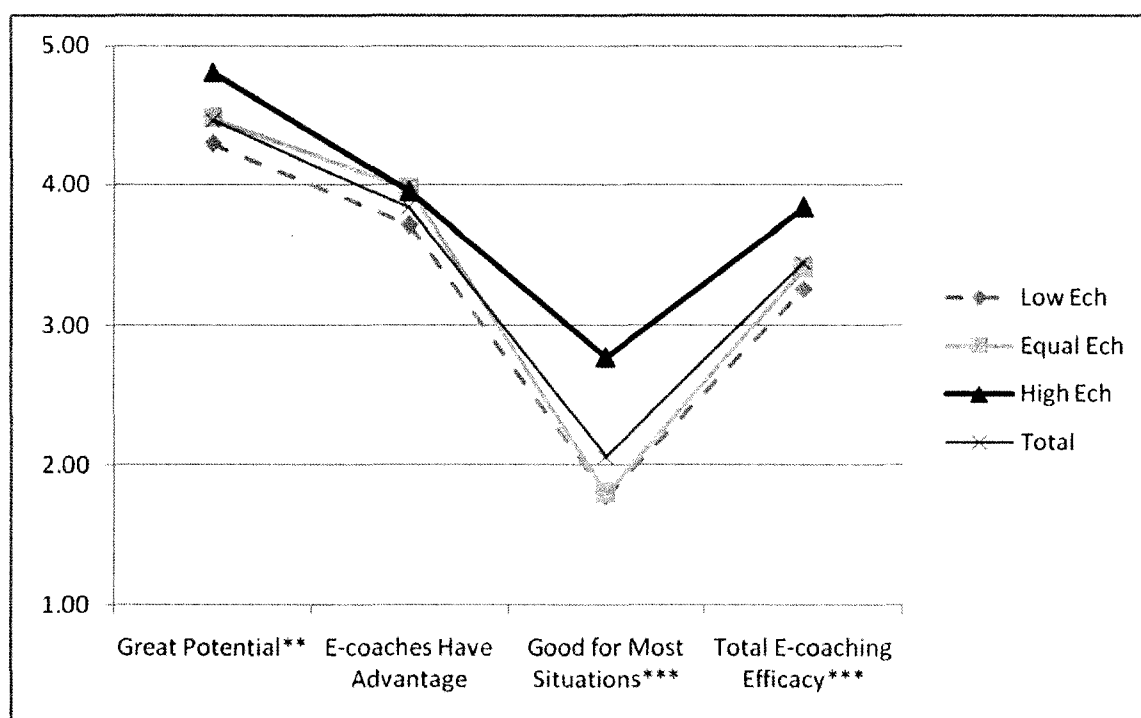


Figure 19. Perceived e-coaching efficacy mean scores by e-coaching level.

Overall mean scores indicated strong positive beliefs that e-coaching is a great concept with lots of potential (mean=4.46), significantly more so in the *High Ech* group ($F=6.30$, $p<.01$), and that coaches who do e-coaching have an advantage over coaches who only offer face-to-face coaching (mean=3.83). As would be expected, those in the *High Ech* group reported significantly higher *total perceived e-coaching efficacy* ($F=9.30$, $p<.00$). Relating these findings to theories of change and technology adoption, one might conclude that positive beliefs about the usefulness and relative advantage of e-coaching made a significant positive impact on how much e-coaching happens.

Overall scores also indicated respondents' tendency to disagree with the statement that there are some situations in which coaching can only be done effectively face-to-face (mean=2.06); this tendency occurred significantly more so in the *High Ech* group ($F=11.69$,

$p < .00$) indicating a slightly positive attitude that e-coaching is effective for most situations. Situations that might necessitate face-to-face coaching are discussed later in this chapter (see *The Unique Nature of the Coaching Engagement* on page 136).

According to survey findings discussed earlier (page 104), the top five reasons for using e-coaching were to serve geographically dispersed employees, provide just-in-time support, address issues of scheduling, provide greater access to expertise and multiple perspectives, and reduce costs. Respondents agreed that e-coaches have a “competitive edge” over those who only provide face-to-face coaching.

Improves Efficiency and Extends Coaching Opportunity to Wider Audience

All coaches agreed that synchronous e-coaching sessions were more cost-effective than face-to-face coaching, and most felt they were effective for most situations. E-coaching could be considered a more “green” and resource-efficient solution providing many benefits associated with better space utilization and lower energy costs overall. Coaches said that e-coaching:

- Saves resources for printing, postage, traveling, or “cleaning up the office” in preparation for a meeting.
- Minimizes scheduling conflicts, connects individuals with coaching resources well matched to their needs (i.e. background, gender, interests) when no local resources are available.
- Helps coaches realize economies of scale and provide affordable coaching by through live synchronous group coaching and more asynchronous touches through archived events, video clips, and other means. One external coach put it this way:

At a cost-base of \$200 to \$300 plus per hour, not all organizations can afford to have everybody in their company coached. [Coaching blended with e-learning and group coaching] allows organizations to have all of their people coached...It's bringing together the technologies and delivery in a cost-effective fashion. [ID# 18].

- Keeps conversations focused instead of wasting time on extraneous topics. Here's how one very skeptical client quickly became an e-coaching convert:

He was very skeptical about coaching, about me, and about the telephone -- we had a real set-up for failure right off the bat. One the first call it was all about, ‘Why are we doing this by phone? I like face-to-face.’ We got past all of that, and on the second phone call he was so ecstatic with what had happened. He said, ‘This is so much more efficient than I ever thought it would be because I don't

have you sitting in my office for two to three hours and us going on and on. We can get in, get out, and get back to work -- and yet I can take the time to talk with you without worrying about the fact that you've traveled to get here.' [ID# 8].

Enhances Coaches' Effectiveness and Competitive Edge

A few external coaches felt that e-coaching is “the wave of the future” and sometimes more effective than face-to-face coaching in the following ways:

- E-coaching helps coaches expand their business by providing access to greater numbers of clients. One Canadian coach said, “[With e-coaching,] coaching really is a flat world for us,” [ID# 18].
- Online collaborative workspaces are convenient, flexible, easy to update, allowing clients to work autonomously on their own schedules and helping coaches manage client relationships.
- Frequent, informal communications (e.g. e-mail) facilitate side conversations helping coaches gain insight into the client’s personal side which can expose underlying issues to be addressed.

CHALLENGES ASSOCIATED WITH E-COACHING

Not surprisingly, coaches talked about the challenges associated with e-coaching.

Reduced Richness and Other Communication Restrictions

Naturally, several coaches complained about the limitations of communicating through “lean” media which lack facial expressions, gestures, and other face-to-face non-verbal cues. Not surprisingly, depending on their media richness, different communication tools were perceived as more or less effective for certain situations. One tech-savvy external coach likened the continuum of media richness to liquid flowing through narrow or wide straws, and said he has become accustomed to working within those parameters.

[Instant Messaging] is sort of like breathing through a [tiny] coffee straw, versus e-mails which would be a regular straw [larger], phone is like a snorkel tube [even larger], and then actual physical presence is wide open – there’s no restrictions in terms of communicating ideas and thoughts and all that non-verbal stuff, gestures and things like that. [ID# 5]

Difficulties Establishing Trust and Rapport

Distance communications can lack humanness, making it difficult to build trust and rapport. With no initial face-to-face meeting, and especially when coaching is conducted

entirely at a distance, one external coach found an increased need to validate her credibility and continuously remind the client of the value of coaching. Because of the importance of a trusting relationship, some coaches preferred to meet clients face-to-face first or at least early in the process, especially for coaching about personal development issues. One coach felt that conversations that take place sitting with a client at their desk or over dinner were invaluable. An external coach/consultant felt that face-to-face meetings helped both parties assess each other's integrity, authenticity, and honest commitment to the coaching effort.

Another coach/trainer agreed:

I believe that all coaching programs need to start with face-to-face coaching to build trust and bonding relationships. Blended is much better than online only. We have tried the online program with either no or a very short face-to-face meeting and the participants did not feel ownership or like there were any good reasons to share with people they didn't know that well. [ID# 207].

Requires Heightened Communication Skills

Without visual and other non-verbal contextual cues of face-to-face meetings, distance communication requires tailored skills and consideration. E-coaching relies on spoken word via phone and audio conferencing, and on written word in e-mail, discussion board postings, and instant text messaging. It also requires attention to non-verbal communication. One survey respondent urged, "As an e-coach you cannot ignore the subtle parts of the conversations; they are as real as someone standing on a table to get your attention." [ID# 243]. Being alert to distractions or multitasking was a major concern for some e-coaches. One external coach explained how she managed her "focus challenged" clients:

I have to make sure when I hear clicking or the mute button come on to call them on it. Active listening goes to a whole other level when you're using technology, because you're not only actively listening to the content of the conversation, but also the non-verbals, because you hear those on the phone as well -- the pauses, the hesitations. You're also listening for the distractions. [ID# 12]

Effective E-Coaching Strategies

During interviews, coaches shared strategies for addressing e-coaching challenges. They also discussed new technologies and approaches they would like to use.

Increasing Humanness

Many coaches felt that enhancing trust and building rapport by humanizing the distance experience was critical to e-coaching success. One internal coach said, “I think the more times you can touch them as a person, the better off you are.” [ID# 10]. Another external coach agreed:

[We must look] at technology as being an enabler, but don't become so dependent on it that we forget about the human element, and forget about either talking with people or doing follow-up by phone, or even sending snail-mail so people have something in their hands. [ID# 18].

Using Visuals to Focus Conversations

Several coaches talked about using visuals to improve coaching. For synchronous e-coaching, during a phone call or webconferencing, some coaches used visual aids such as slide presentations, or color-coded documents or spreadsheets sent by e-mail in advance or shared in the moment through IM or webconferencing software. One external coach gave an example of using a slide presentation through NetMeeting to guide an initial coaching session by phone.

I was able to very quickly pull up [the slide presentation] with my process and my company information, and use that tool to really keep him focused and walk him through the steps. It helps me be clearer, and it helps clients stay focused on the work that we need to do. [ID# 12]

Other coaches used screen sharing to demonstrate an online resource or software application so the protégé could see exactly where the coach was clicking on the screen. These strategies helped to keep the discussion focused and prevented multitasking and confusion by ensuring that everyone was following along. One coach/trainer said that during webconferencing she would use the whiteboard and ask for participants to “raise their hands” to make sure they were not multitasking.

Two internal coaches who did a lot of asynchronous coaching and training through e-mail or discussion boards sent screen shots to explain a step-by-step procedure, or use concept maps to check the protégé's understanding and learning. Another external coach who uses graphic “vision boards” to help her clients with goal setting has easily translated that activity to the digital world, subsequently having clients create these vision boards digitally so they can be shared and modified.

Setting Expectations about the Why, What and How of E-Coaching

One external coach who wanted to do more e-coaching and less face-to-face realized the importance of educating her clients about the differences and benefits of e-coaching to make that happen. She suggested that coaches must not apologize for e-coaching by qualifying it or presenting it as a second choice behind a more desirable face-to-face experience, nor should coaches focus on cost-savings alone, but rather on what matters most to the individual such as efficiency, convenience, or increased effectiveness. She and others urged that coaches must be persistent to determine the hook that will win over skeptical clients and how e-coaching can best address their particular needs.

A few coaches suggested that coaches must clearly explain what e-coaching is so that clients understand that phone, e-mail, and other distant communications are all considered part of coaching time. Several coaches also talked about the importance of establishing parameters and guidelines about how e-coaching would proceed, especially about the frequency, duration, and appropriate times to contact the coach. One coach said she sets expectations during every initial e-coaching session using webconferencing to share a slide presentation that explains the e-coaching process, roles, and guidelines. A few others said they modeled effective communication strategies, even if they did not discuss them explicitly. For instance, two coaches said they sent and responded to e-mail only during normal business hours, even if they read or composed the message at other times. One tech-savvy external coach was explicit about how communication would occur.

Part of it is coming to the clear agreement from the beginning, 'What is your preferred mode of communication? How much information do you want?' Some people don't even know how to do an e-mail attachment. For me, that's a cue that I can't work with that person because I would just be spending too much time babysitting. [ID# 18]

WHAT FACTORS HAVE THE MOST INFLUENCE ON PATTERNS OF USE AND PERCEPTIONS OF SUCCESS?

The second research question asked what factors have the most influence on patterns of use and perceptions of success. Factors were clustered into three main areas related to the *individual*, the *organization*, and the e-coaching *innovation*, as depicted in Figure 20.

Outcomes including patterns of use and perceptions of success were measured using several indicators, shown in Figure 21.

In the first half of this chapter, the researcher highlighted differences by e-coaching level based on Chi-Square and analyses of variance. Next, the researcher used multiple linear regression analyses to examine the influence of items in the three factor clusters separately (i.e., individual, organizational, innovation), and taken together to control for interdependencies. Prominent factors from interviews were also considered.

This section presents a discussion of the most significant determinants of e-coaching use and perceived success. It begins with a description of the dependent measures, followed by discussion of each of the factor clusters.

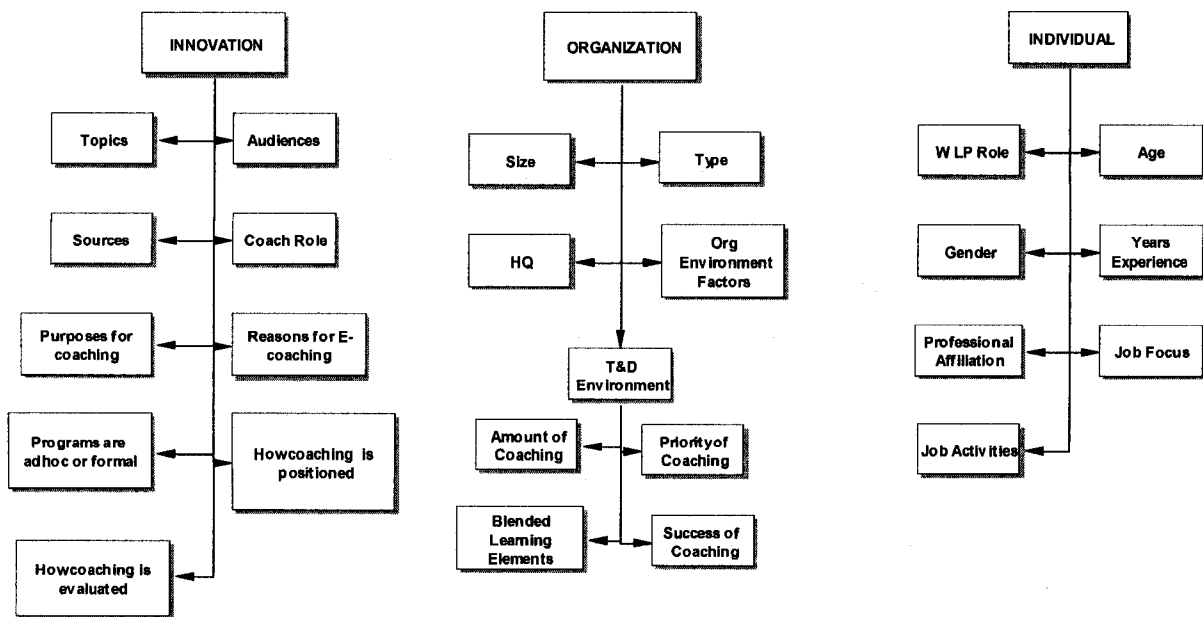


Figure 20. Independent factors used to predict e-coaching outcomes.

DEPENDENT OUTCOME MEASURES

Patterns of use were determined using six measures: *Level of e-coaching* (score reversed), and the standardized composite scores for four types of technologies including *synchronous* and *asynchronous* tools, *resources* and *support tools*. As detailed earlier, *breadth* of e-coaching was calculated by summing twelve survey sub-items that rated technologies for e-coaching (see Table 10, p. 107). E-coaching success was determined using two measures: the anticipated *future use* of e-coaching, plus a composite measure of *total perceived e-coaching efficacy* that was calculated by summing three items about *e-coaching*

potential, advantages for e-coaches, and belief that some situations require face-to-face coaching. Outcome measures examined in this study are depicted in Figure 21.

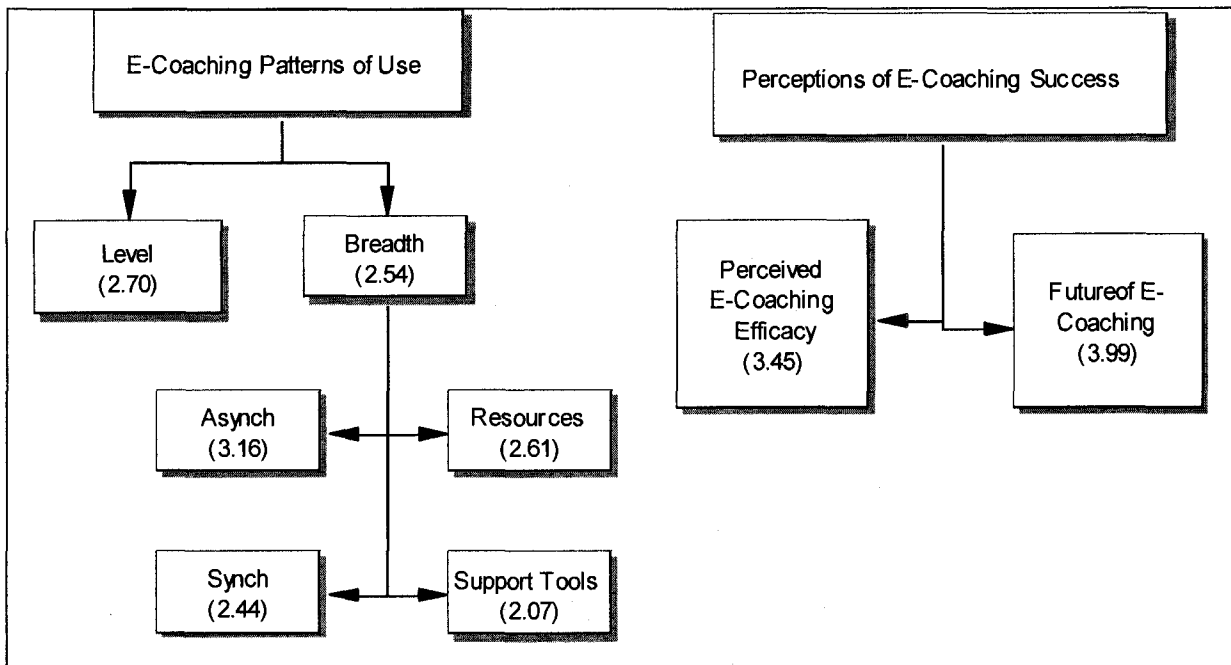


Figure 21. E-coaching outcomes: Patterns of use and perceived success (means).

What Innovation Factors Have the Most Influence?

All nine innovation factors from the survey were used in an unrestricted stepwise regression analysis. Table 13 presents the Adjusted R-square values for eight regression analyses: e-coaching level, breadth of e-coaching, synchronous, asynchronous, resources, and support tools, perceived efficacy and future use of e-coaching. The table also provides the estimated coefficients and levels of significance for only those independent variables that were the strongest predictors of effect size and number of statistically significant occurrences¹. Innovation factors taken together produced fairly strong models for predicting outcome measures, with Adjusted R-square values from .27 to .69 and very high levels of significance. For example, 69% of the variation in e-coaching level and 59% of the variation in perceived e-coaching efficacy can be explained by the models.

¹ For a complete listing of significant factors, see Appendix I.

Considering quantitative and qualitative analyses, the most significant innovation factors according to survey and interview participants are discussed below and include audience, coaching source, purposes for coaching and e-coaching, and technology richness.

AUDIENCES TARGETED BY COACHING

The coaching audience (i.e., protégé, client, person being coached) was the most influential determinant of how e-coaching was used and perceived, particularly the protégé's job role and ability to communicate at a distance. In fact, when an attempt was made to control for interdependencies among all factors taken together, the protégés job role was the only innovation factor that was a significant predictor of e-coaching level, breadth, synchronous tools, technology resources and support tools.

Job Role

E-coaching was used more with geographically dispersed employees and less with line employees, new hires, high ranking clients, and conscripts.

Expatriates working overseas. Coaching *expatriates working overseas* was done significantly more often in the *High Ech* group, and every point increase (on a 5-point scale) resulted in one-quarter point increase in the use of support tools (i.e., an online system specifically for coaching and searching a database of 'who's who'), shown in Table 13. When controlling for individual and organizational factors, data suggested that coaching expatriates included a wider breadth of technologies and greater use of synchronous and support tools.

Line employees. Coaching for *line employees* occurred significantly less often in the *High Ech* group. When controlling for individual and organizational factors, coaching for line employees also had a significant negative influence on e-coaching level, but a significant positive relationship with the use of technology resources such as audio/video clips, and electronic file sharing. Furthermore, every point increase (on a 5-point scale) resulted in one-quarter point increase in the use of synchronous tools, shown in Table 13.

New hires. Coaching for *new hires* had a negative relationship with e-coaching level and perceived e-coaching efficacy: every point increase (on a 5-point scale) resulted in a reduction of over two-tenths of a point in perceived efficacy.

Table 13. Adjusted R Square and Estimated Coefficients for Prominent Innovation Factors Predicting E-Coaching Use and Perceived Success

	Level	Breadth	Sync	Async	Res	Supp	Efficacy	Future
Adjusted R Square	0.69	0.57	0.60	0.44	0.45	0.57	0.59	0.27
F	17.35***	14.01***	11.94***	10.10***	12.60***	13.97***	12.92***	8.03***
AUDIENCE								
New hires	-.14*						-.22***	
Line employees or equivalent			.25***					
Expatriates working overseas						.24*		
SOURCE								
An employee's direct supervisor/manager	-.38***			-.15*				
Two or more coaches for one employee	.23***		.12*					
An external instructor or facilitator					.27**	.22***		
ROLE								
Motivator who provides support and encouragement.		-.28**					-.28*	
Integrator who connects to useful people, tools, resources.						.26*		
Expert who provides answers, specialized knowledge or experience							-.19**	
PURPOSE								
Increase cross-functional capabilities.	-.34***							
REASON FOR E-COACHING								
Our people are asking for e-coaching.					.15*			.19**
To address issues of scheduling or limited availability		.23***	.15*	.19**				
To provide just-in-time answers for immediate needs.							.34***	
Others are doing e-coaching and we want to keep up.			.27***					
POSITIONED								
Coaching is just one option in the blend.			-.52**					
WHEN EVALUATION OCCURS								
After: Data is gathered within 3 months after coaching	-.28***						-.11*	

*=p<.05, **=p<.01, ***=p<.00

High ranking protégés. Several interviewees agreed that a client's position in the organization influenced coaching topics and e-coaching level. Some coaches suggested that issues addressed with high-level protégés were often at a deeper, more personal level than for lower ranking individuals (e.g., first level managers or line employees), and thus required more humanness. Though executives were the most typical audience reported by survey respondents in the *High Ech* group, many coaches said they spent more time face-to-face with senior level protégés, particularly in the beginning of the relationship.

As a result of being interviewed, one external coach realized that he treated clients differently depending on their rank and the amount of money they paid for coaching. For groups, his coaching involved more e-coaching and asynchronous exchanges and less direct involvement because group clients were paying less and the topics were not as personal. Conversely, when coaching executives and other high ranking clients, the topics were often more personal and clients paid more for services, thus he provided one-on-one coaching services with greater personal involvement by phone and face-to-face and he was more inclined to adapt to their communication preferences rather than force his own approach.

Coaching conscripts. Some researchers have found that voluntary, rather than assigned, coach-client pairings are most effective (D. Leonard & Swap, 2005; Murray, 2001), and produce the highest protégé satisfaction ratings (Hamilton & Scandura, 2003). Certainly, those mandated to participate in coaching may resist, such as when an employee is required or urged to seek coaching due to performance problems. Supporting the published literature, some coaches in the present study agreed that volunteers had greater commitment and belief in the coach and coaching experience. One external coach felt that corporate clients assigned to coaching were less motivated and more skeptical as compared to private clients who had sought out her coaching service and paid for it themselves.

Reluctance about the goal, topic, coach, or the coaching/e-coaching experience can affect the coaching approach. According to HPT published literature and theory, when motivation (including confidence and value) is lacking, more human touch or presence, oftentimes face-to-face, is recommended. Supporting this theory in practice, a few survey respondents and interviewees used face-to-face meetings when motivation was a concern.

Ability to Communicate at a Distance

One's ability to effectively communicate at a distance had a major influence on the amount of e-coaching and the tools selected. Naturally, more e-coaching was used with more tech-savvy clients (and coaches), and more visual media were used to keep "focus challenged" clients from multitasking during virtual meetings.

Not surprisingly, coaches based their approach on client needs and preferences. One external coach said simply, "I cut the cloth to the client," [ID# 13]. A survey respondent felt that face-to-face would always be necessary because "not everyone has the ability to express themselves well online or even over the phone," [ID # 59]. Other coaches agreed and some even said they themselves were not very tech-savvy which influenced them to stick with face-to-face coaching rather than try new technologies such as webconferencing and video. On the other extreme, a few tech-savvy external coaches said they would not work with clients who were not tech-savvy. One coach said, "One of the things I use as a criterion with my clients is that if they don't have an e-mail address, we're not talking." One of the main reasons for his selectivity was that he considered tech-savvy people more open-minded and willing to try new things, which he felt was critical to coaching success.

COACHING SOURCES

Who delivered the coaching had a significant influence on the technologies used for coaching and how much e-coaching was happening. When coaching came from external coaches or two or more coaches for one protégé, more e-coaching was happening, whereas less e-coaching was happening when manager/supervisors delivered the coaching.

External instructors and SMEs. External coaches provided significantly greater levels of e-coaching in this study. Every point increase in coaching by an external facilitator (on a 5-point scale) resulted in almost three-tenths of a point increase in the use of technology resources (i.e., audio or video clips, electronic file sharing) (.27), and over two-tenths of a point increase in the use of support tools (i.e., online coaching platform) (.22). Quantitative findings were echoed by external coaches who regularly swapped electronic files and sometimes sent "video postcards" to their clients.

Direct managers. When direct managers coached their reports, every point increase (on a 5-point scale) resulted in a reduction of almost four-tenths of a point in e-coaching level

(-.38) and one-sixth of a point in the use of asynchronous tools (i.e., e-mail, discussion boards and online collaborative workspaces) (-.15).

Two or more coaches at once. When coaching was provided by two or more coaches for one protégé, every point increase resulted in an increase of about one-quarter point in e-coaching level and about one-tenth of a point increase in using synchronous tools such as phone, text messaging, or live online collaboration tools (.12). These findings could be explained by the fact that group or peer coaching is often used in combination with blended or e-learning, and facilitated through webconferencing, screen sharing, conference calls, and live text chat.

RATIONALE FOR COACHING AND E-COACHING

Three reasons for using coaching and e-coaching in particular had a significant influence on e-coaching level and perceived efficacy. The reasons with the greatest influence were related to relative advantage and compatibility and included using e-coaching to address scheduling and location needs, to provide immediate task assistance, and to stay competitive in the marketplace.

Addressing scheduling and location needs. As one might expect, a major determinant of greater e-coaching levels was using e-coaching to *reach geographically dispersed employees*. This was the top reason for e-coaching in the *High Ech group*, significantly higher than *Low* and *Equal* groups, which aligns with survey findings about targeting expatriates working overseas with significantly greater levels of e-coaching. Another related factor was e-coaching *to address issues of scheduling or limited availability for development activities*; one point increase (on a 5-point scale) resulted in gains between one-sixth and one-quarter of a point in the breadth of technologies for coaching (.23), particularly the use of synchronous (.15) and asynchronous tools (.19).

Providing just-in-time assistance. The second most common reason for using e-coaching in the *High Ech group* was to provide just-in-time answers for immediate needs. Likewise, e-coaches in this study often provided just-in-time coaching, mostly by phone and sometimes using e-mail or instant messaging. Interestingly, for every one point increase (on a 5-point scale) in the use of e-coaching for just-in-time support, perceived efficacy increased

by about a third of a point (.34). These findings suggest that the more they use coaching to solve problems in context, the more valuable they perceive it to be.

Meeting demand and staying competitive. Compatibility with the working environment inside and outside the organization influenced tools and expectations about e-coaching. The extent to which *our people are asking for e-coaching* was significantly greater in the *High Ech* group, and every point increase (on a 5-point scale) resulted in about one-sixth of a point increase in the use of technology resources (.15) and almost two-tenths of a point increase in expectations that the future use of e-coaching would rise (.19). Coaching was used significantly more often as a strategic advantage in organizations in the *High Ech* group, and when survey respondents used e-coaching because *others are doing e-coaching and we want to keep up*, every point increase (on a 5-point scale) resulted in a gain of over one-quarter point in the use of synchronous tools (.27).

THE UNIQUE NATURE OF THE COACHING ENGAGEMENT

Coaches confirmed that the nature of each coaching engagement was influenced by individual needs. Four areas had the greatest influence on e-coaching level, tools and perceived success: coaching about sensitive issues or physical interactions, the coach's primary role in the process, group coaching, and how coaching was blended with other development efforts.

Topics

Though no topic had any real pattern of statistical significance, interviews were able to probe the nature of one-on-one coaching engagements. When asked their opinion about *situations in which coaching can only be done effectively in person, face-to-face*, two-thirds provided an example (n=107). Discussions of a sensitive nature and performance of physical manipulation or interaction were the main situations perceived as most appropriate for face-to-face, not e-coaching. One survey respondent summed it up by saying, "E-coaching can only go so far, and with only certain topics" [ID# 54]. These themes were echoed by interviewees and discussed below.

Sensitive issues or difficult feedback. Several coaches and some survey respondents felt that highly personal issues or those requiring a deeper level of discussion were best

addressed in person if possible, by phone at a minimum, but never by e-mail. Sensitive or complex issues included negative feedback, performance problems, complex feedback associated with 360 degree assessments, legal or regulatory matters, and politically charged issues. The reason that face-to-face coaching was perceived as better for some situations was that the message could be misconstrued at a distance, and that, more importantly, face-to-face conversations helped to deepen the personal connection, build trust, and express empathy, caring and respect which helped soften the sting of negative feedback. Furthermore, some participants felt that the act of dedicating in-person time demonstrated commitment to the relationship and sent the message that the conversation was important enough to warrant a face-to-face meeting regardless of the logistical challenges.

Physical interactions. There were some tasks that coaches felt had to be done face-to-face including observing performance and giving feedback or providing hands-on manipulation or demonstration such as practicing or role-playing body language, group dynamics, how to conduct performance reviews, customer service, or other interpersonal interactions. Others said face-to-face coaching would be more effective for “very technical skills,” “performing a medical procedure,” or “where successful coaching would require detailed observation,” such as “shadow coaching” to observe the protégé in action to “figure out what exactly is not working.”

Coach’s Role

The most typical roles for coaches in the *High Ech* group were *motivator* and *integrator*, and both roles had a significant effect on e-coaching tools. Every point increase in the role of integrator (on a 5-point scale) resulted in an increase of about one-quarter point in the use of support tools (i.e., an online system specifically for coaching and/or a database of who’s who) (.26). This finding is intuitive, as the definition of the role of *integrator* in this study was one who connects the protégé to useful people, tools, and resources.

The role of motivator had an unexpected negative relationship with breadth and perceived efficacy. Surprisingly, a one point increase in the role of motivator (on a 5-point scale) resulted in almost three-tenths of a point decrease in breadth of tools (-.28), and the same decrease in perceived efficacy of e-coaching. One possible explanation for this effect is

that the greater the extent that the coach is playing the role of motivator, perhaps it is more likely that motivation or performance is a problem.

Group versus Individual Coaching

The researcher took a closer look at why some coaches in this study preferred face-to-face for certain situations. In several instances when coaches favored face-to-face meetings, the face-to-face sessions included collaboration with peers, typically a learning cohort or working group, whereas the e-coaching was conducted one-on-one. Similarly, one coach touted the benefits of live webconferencing versus phone coaching, but she was comparing one-on-one phone coaching with a group webconference. Furthermore, as discussed earlier in this chapter, many interviewees talked about the benefits of group discussion, whether it was face-to-face or via synchronous and asynchronous interactions. Therefore, one might conclude that a factor driving coaching success was more about group collaboration rather than face-to-face time with a coach.

What Organizational Factors Have the Most Influence?

This section begins with a discussion of the results from a survey item that asked about the effectiveness of organizational elements in support of coaching. Next, findings are presented from the regression analyses of organization factors taken together (see Figure 20 earlier). When an attempt was made to control for interdependencies among all factors taken together, organizational factors had the most influence on dependent measures. Considering these quantitative analyses plus qualitative findings, the most significant organization factors are highlighted here, including organization size, type and an environment supportive of coaching and technology.

ORGANIZATIONAL ELEMENTS THAT SUPPORT COACHING

Respondents rated the effectiveness of eleven organizational characteristics on a 5-point scale including the following: (1), *this doesn't exist*; (2), *very ineffective*; (3), *somewhat ineffective*; (4), *somewhat effective*; (5), *very effective*. Thus, a score below four (4) would indicate that the element tended to be ineffective. Table 14 shows the mean scores by

Table 14. Organizational Elements by E-coaching Level (Sorted by *High ECh* Mean)

Organizational Elements	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
A culture supportive of those who rely on coaches.*	3.01	3.77	3.34	3.24
Training and support on how to use available computer technologies.	2.77	3.20	3.25	2.98
Pilot testing of coaching programs.	2.73	2.77	3.20	2.87
A dedicated coordinator to oversee coaching programs.	2.50	2.83	3.09	2.73
Training and support for coaches on how to coach.	2.76	3.07	3.00	2.89
A system for matching coaches with protégés/coachees (trend)	2.34	2.40	3.00	2.53
A communication campaign about the what, why, and how of coaching programs.	2.52	2.73	2.93	2.68
Training and support for protégés/coachees on how to maximize the coaching experience.	2.23	2.63	2.73	2.44
A system to assess whether someone is ready to receive coaching.	2.44	2.53	2.61	2.51
A way to recognize/reward those who serve as coaches.	2.26	2.40	2.61	2.38
A system to assess whether someone is ready to be a coach.	2.12	2.37	2.45	2.26

*=p<.05, **=p<.01, ***=p<.00

e-coaching level, sorted by *High ECh* means. None of the items had a mean rating above four (4), indicating that organizational support for e-coaching was perceived as ineffective by this sample. For all but two elements, mean scores were highest in the *High ECh* group, though not significantly so. The most effective organizational element for the *High ECh* group was a *culture supportive of coaching* (mean=3.34), which was also the only element that was rated as at least somewhat effective by more than fifty-percent of respondents.

MOST INFLUENTIAL ORGANIZATION FACTORS WHEN TAKEN TOGETHER

Table 15 presents the Adjusted R-square values for eight regression analyses and the estimated coefficients and levels of significance for those independent variables that were the

strongest predictors in terms of effect size and number of statistically significant occurrences² Organization factors taken together produced fairly strong models for predicting e-coaching level, breadth of e-coaching, synchronous, asynchronous, resources, and support tools, with Adjusted R-square values from .30 to .52 and very high levels of significance. For example, 52% of the variation in breadth of e-coaching and 30% of the variation in e-coaching level can be explained by the models. Organization factors taken together did not have as strong an influence on perceived efficacy and future use of e-coaching, only predicting about 15% of the variation in each.

Table 15. Adjusted R Square and Estimated Coefficients for Prominent Organization Factors Predicting E-Coaching Use and Perceived Success

	Level	Breadth	Sync	Async	Res	Supp	Efficacy	Future
ARS	0.3	0.52	0.3	0.32	0.34	0.47	0.14	0.15
F value	10.60***	25.82***	23.72***	15.72***	17.32***	24.51***	5.99***	14.38***
ORGANIZATIONAL ENVIRONMENT								
Training and support on how to use available computer technologies.	.14*	.10***	.12**	.13**			.11**	.12**
Coaching priority								.20***
Coaching success	0.34***				0.16*			
BLENDED ELEMENTS								
Online references, resources, or learning materials	0.20**	0.07*			0.12*			
Synchronous web-based instruction or 'live elearning'	0.16**	.14***	.23***	.13**		.17***		
Face-to-face classroom instruction	-0.24***							
ORG SIZE AND HQ								
1-20 emps		.19*					.94***	
21-500 emps							.35*	
HQ Asia, India, Aus, NZ	.62*							
ORG TYPE								
Org Type Univ or K12				.93***				

*=p<.05, **=p<.01, ***=p<.00

² For a complete listing of significant factors, see Appendix I.

Organization Size and Type

Size and type had a very large effect on e-coaching level, perceived efficacy, and e-coaching tools. Perceived efficacy of e-coaching was almost one whole point higher (.94) for those working in an organization with *1-20 employees*, and about one-third of a point higher for those with *21-500 employees* (.35). Those with 1-20 employees also reported about two-tenths of a point greater breadth of e-coaching tools (.19), and when controlling for individual and innovation factors, very small size emerged as a significant predictor of e-coaching level, resulting in more than half of a point greater (.55) compared to larger organizations.

Those working in a *university or K-12* setting reported almost one whole point higher (.93) in the use of asynchronous technologies including e-mail and online collaboration tools such as discussion boards, Wikis and Blogs. This finding is not surprising since educational institutions typically use course management systems that have built in e-mail and discussion boards. And organizations headquartered in Asia, India, Australia or New Zealand reported almost two-thirds of a point greater e-coaching level. This finding is not unusual since organizations in those locations, and who participated in this study, are likely to have geographically dispersed employees doing business with or having agents abroad.

Environment Supportive of Coaching and Technology Use

Regarding organizational culture and environment, the most influential determinants of e-coaching level, tools, perceived efficacy, and anticipated future use of e-coaching were cultures that valued coaching, where employees were already accustomed to working and learning virtually and coaches had ample training and support. These findings align with the concepts from technology adoption and change theory.

Technology culture. In organizations where more e-coaching was happening, there was a tech-rich blended learning environment which typically included e-learning, online resources, EPSS, or knowledge management systems. On the other hand, in organizations where less e-coaching was happening, blended learning involved more face-to-face instruction and less tech-rich elements. In particular, every point increase in the use of *online references, resources, or learning materials* or *synchronous web-based instruction* or “*live e-learning*” resulted in one-sixth to two-tenths of a point increase in e-coaching level, and

about one-tenth of a point gain in breadth, whereas every point increase in the use of face-to-face classroom instruction led to about one-quarter point decrease in e-coaching level (-.24).

When controlling for interdependencies among innovation, individual, and organization factors, organizations with a tech-rich blended learning environment reported significantly higher e-coaching level and breadth. Likewise, those who reported that *our people are accustomed to working virtually* reported significantly higher levels of e-coaching and perceived e-coaching efficacy. It makes sense that organizations already accustomed to working and learning with technology would more readily adopt e-coaching, and that e-coaching would be perceived as effective because necessary technology systems and infrastructures would already be in use.

Coaching culture. In the *High Ech* group, having a *culture supportive of those who rely on coaches* was rated as the most effective organizational element. Taking all organizational factors together, every point increase in the perceived success of coaching translated into over one-third of a point gain in e-coaching level (.34), and when coaching was a top priority, there were increased expectations that the use of e-coaching would rise in the future (.20).

Training and development for e-coaches. In the *High Ech* group, *training and support on how to use available computer technologies* was rated as the second most effective organizational element. When taking all organizational factors together, the availability of technology training had a significant influence across the board. Every point increase led to around one-tenth of a point increase in e-coaching level today (.14), breadth (.10), perceived efficacy (.11), and expectations that e-coaching use would rise in the future (.12).

Several coaches agreed that in order for e-coaching to take hold, coaches needed to be trained in how to use technologies for coaching. Some suggested that coach training programs should incorporate newer technologies such as web- and video-conferencing. One internal coach recommended a learning community for coaches, like the Learning Circles being used in her organization. Learning Circles mixed relatively inexperienced internal coaches with veteran external coach/consultants and included phone calls every other week with, quarterly meetings, and an online toolkit. This learning community enabled external coaches to bring industry best practices to the group and keep abreast of the company culture and ongoing issues, and provided internal coaches with professional development and

support from the externals through role playing, discussing trends and challenges, and sharing best practices, tips, and resources.

What Individual Factors Have the Most Influence?

All seven individual factors from the survey were used in an unrestricted stepwise regression analysis (see Figure 20 earlier). It is important to note that a limited set of individual factors were gathered in this study, including data about survey respondents as opposed to specific data about the characteristics of individual coaches or protégés. This limitation is discussed later in chapter five. This section addresses individual factors related to survey respondents only³.

Table 16 presents the five-factor model that explained 28% of the variation in e-coaching level. Individual factors did not have a strong influence on breadth of e-coaching, synchronous, asynchronous, resources, and support tools, perceived efficacy and future use of e-coaching, only predicting from 3% to 6% of the variation in each. Gender, age, years experience, and job focus did not have a significant influence on outcome variables. The most significant individual factors including WLP role, professional affiliation, and job activities are discussed below.

Table 16. Adjusted R Square and Estimated Coefficients for Prominent Individual Factors Predicting E-Coaching Use and Perceived Success

	Level
Adjusted R Square	0.28
F	13.90***
(Constant)	3.15***
Internal WLP	-0.48**
Trng & Dev Focus versus Coaching Focus	-0.66***
Serving as a coach	0.21***
Delivering or facilitating face-to-face instruction	-0.30***
Delivering or facilitating online instruction	0.18***

*=p<.05, **=p<.01, ***=p<.00

³ Factors pertaining to coaching sources and audiences were considered as part of the innovation and discussed earlier in that section.

All significant variables were concerned with whether the survey respondent had more of a “training” or “coaching” focus. *Professional affiliation* (i.e., a training & development focus versus a coaching focus) had the largest effect size, with training affiliates reporting e-coaching level about two-thirds of a point lower (-.66) than coaching affiliates. Internal WLPs (significantly more of whom were focused on training or education as discussed early in this chapter) reported e-coaching levels almost one-half point lower than external WLPs (-.48). Likewise, every point increase in the amount of *delivering* face-to-face *instruction* resulted in three-tenths of a point decrease in e-coaching level (-.30). On the other hand, the extent to which a respondent’s job involved *servicing as a coach* or *facilitating online instruction* was positively associated with e-coaching level, with effect sizes around two-tenths of a point for every point increase (on a 5-point scale).

To summarize, those more involved with serving as a coach or online instruction and facilitation reported a significantly higher e-coaching level than those more involved in training, particularly face-to-face facilitation. These findings are intuitive and in line with practice, where internal coaches have more opportunity for face-to-face meetings with protégés, especially the more that their jobs involve delivering or facilitating face-to-face instruction. Similarly, those who reported primarily serving as a coach were more likely to work as externals and therefore have less face-to-face and more virtual communications with their protégés.

Summary

This chapter presented the results of findings from the sample of 191 survey respondents and 20 e-coaches. Quantitative and qualitative analyses were used to examine how e-coaching was employed in organizations and the factors influencing technologies, processes, and perceptions of success. Interviews with 20 e-coaches were analyzed and coded based on the literature regarding workplace performance systems, coaching, and technology adoption. Quantitative data were analyzed using analyses of variance, chi-square, and linear regression techniques. Data showed that most coaching was delivered with little technology, with strong expectations for growth despite weak perceptions of coaching success and organizational support. E-coaching involved mostly e-mail, telephone, and electronic file sharing, with limited use of videoconferencing. Certain coaching purposes and topics, as well

as beliefs about e-coaching usefulness and a supportive environment, were strong predictors of e-coaching level, technology choices, and perceived efficacy. The next chapter relates major findings to the literature, discusses strengths and limitations of the study, and presents future trends, implications for practice, and opportunities for further research.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

This chapter begins with a summary of major findings about e-coaching in light of human performance technology, social constructivist learning, and technology adoption and implementation. Next follows a discussion of future trends for e-coaching and implications for practice with suggestions for individuals and organizations. The chapter concludes with strengths and limitations of the study and opportunities for future research.

SUMMARY OF MAJOR FINDINGS

Snapshot of Coaching and E-Coaching

In this study, almost half of the respondents said that some coaching is happening, that coaching was a priority, and that coaching success to date was satisfactory, although one-quarter of respondents were dissatisfied with current coaching efforts. About two-thirds reported that coaching was part of a blend of learning and development offerings.

Overall, there was strong belief that e-coaching is a positive concept with lots of potential, that coaches who do e-coaching have an advantage over coaches who only offer face-to-face coaching, and that e-coaching would increase in the near future. However, most coaching was delivered with little technology; there was twice as much face-to-face coaching (i.e., low e-coaching: *Low Ech*), compared to coaching done primarily or entirely at a distance (i.e., high e-coaching: *High Ech*), or with equal levels of face-to-face and distance coaching (i.e., equal e-coaching: *Equal Ech*). Interestingly, only a dozen respondents said that coaching was done entirely at a distance. Those organizations doing more coaching, placing a higher priority on coaching, and with greater perceived coaching success had more e-coaching going on in their organizations.

E-coaching was typically used as an alternative to face-to-face rather than as an opportunity to do something altogether new. E-coaching was used with individuals, often coupled with 360-assessment feedback, and with groups to provide guided practice and improve training transfer. E-coaching involved mostly e-mail, telephone, and electronic file

sharing. Compatibility and ease of use appeared to be most important when choosing technologies for coaching. Richer media and videoconferencing, with all their potential, were underused by respondents in this study.

DIFFERENT LEVELS OF E-COACHING FOR DIFFERENT AUDIENCES

The published literature suggests that executives are the most typical beneficiaries of coaching, though findings from this study did not support that contention. New hires and line employees were the most typical audiences reported by survey respondents overall, and significantly more so in the *LowEch* group. However, in the *High Ech* group, executives, senior management, and supervisors were the most typical beneficiaries. Nevertheless, just as Charbonneau (2002) found in her study of executive coaching, coaches in the present study used more face-to-face with executives, especially to address deeper issues. Higher levels of e-coaching were used with women and expatriates working overseas, which supports the published literature suggesting that e-coaching helps to reach teleworkers and provide social access.

MANAGERS AND INTERNAL COACHING SOURCES PREDOMINATE

Across all levels of e-coaching, more internal sources and instructors/facilitators than external sources and subject matter experts (SME's) delivered coaching, which parallels findings from recent coaching studies (Pernula, 2007). There were big differences in coaching sources depending on how much e-coaching was happening. Not surprisingly, the prevalence of external instructors and SME's increased with higher levels of e-coaching. In contrast, direct supervisors were the most typical coaching sources in the *Low Ech* group and overall, supporting the importance of the line manager's role in workplace learning and development (CIPD, 2007; Fillery-Travis & Lane, 2006; Fournies, 2000).

COACHING IN VERY SMALL ORGANIZATIONS AND BY INDEPENDENT CONSULTANTS

When interpreting findings about organization size and its influence on perceived efficacy, e-coaching level and breadth, organization size, and respondent traits were highly correlated. Of the 50 respondents from very small organizations (i.e., 1-20 employees),

almost all of them were external WLPs (92%), and more than half were employed as independent consultants (54%), while the rest worked for a consulting firm (14%), in higher education/K-12 (8%), or for corporations in the business of providing non e-learning (8%) or e-learning (4%) coaching. This group of 50 respondents focused on designing or managing coaching programs or serving as coaches significantly more than respondents from larger organizations.

Surprises

COACHING FOR JUST-IN-TIME ASSISTANCE WAS HIGHLY VALUED

The second most common reason for using e-coaching in the *High Ech* group was to provide just-in-time answers, which surprisingly had a significant positive influence on perceived e-coaching efficacy. Survey respondents tended to value immediacy and utility over relationships in coaching. Likewise, e-coaches interviewed in this study often provided just-in-time coaching, mostly by phone and sometimes using e-mail or instant messaging. However, they also reported that trust is essential in order for just-in-time advice and support to be accepted, particularly for higher ranking individuals or higher-stakes issues.

Data affirm other research that found that executives perceived a coach's accessibility and availability as important factors in coaching success (Hall et al., 1999). These findings also suggest that the more that coaching was used to solve problems in context, the more valuable it was perceived to be, which supports the importance of learning by doing in the workplace and represents a shift away from the classroom to employee-centric, on-demand resources. These findings are most interesting because of the emphasis many put on coaching to deepen and establish bonds and relationships (Evered & Selman, 1989; McLean et al., 2005; Passmore, 2007). This study highlights the other side of coaching, where the relationship is a key part of the process, not the focus, and where coaching helps in small and constant ways, nicely augmented by technology.

E-COACHING WAS TYPICALLY FORMAL AND PART OF A BLEND

When a lot of e-coaching was happening, coaching was typically formal and used in a blend with online resources, asynchronous e-learning, and communities of practice. On the

other hand, when little e-coaching was happening, coaching was significantly more likely to stand alone, or if blended, it was typically combined with face-to-face instruction. Not surprisingly, these findings suggest that organizations already using technology in some areas are more likely to adopt technology in other areas.

E-COACHING EXPECTED TO GROW DESPITE LOW RATINGS FOR COACHING SUCCESS AND SUPPORT

It is noteworthy that one-quarter of survey respondents reported dissatisfaction with current coaching efforts and rated organizational support factors as ineffective. Compared to those who rated coaching success satisfactory or better, those who rated coaching success as marginal or poor also gave significantly lower ratings to the amount and priority of coaching and e-coaching level, and lower ratings for all organizational elements and perceptions of e-coaching benefits and advantages. However, regardless of e-coaching level, and amidst general discontent with coaching efforts and support, there were strong expectations that the use of e-coaching would increase in the future, with the *High ECh* group expecting a significantly greater increase than other groups.

MIXED OPINIONS ON THE IMPORTANCE OF FACE-TO-FACE MEETINGS

The published literature presents clear evidence that trust and credibility are critical to coaching and learning (Bandura, 1986; Sue-Chan & Latham, 2004; Yunjie et al., 2004), group effectiveness (Kandola, 2006) and in the distribution of organizational knowledge through social networks (Kleiner, 2002). Concurring with the literature, coaches in the present study reported that trust and relationship-building were essential to the coaching process. However, opinions were mixed regarding the need for meeting face-to-face, and data suggest that the perceived need for humanness or presence was influenced, in part, by the nature of the coaching engagement as it related to the type of issues addressed and the protégé's needs.

According to several coaches, face-to-face meetings were necessary for certain situations, even if just to initiate the relationship. These findings echo executive coaches in Charbonneau's study (2002) who felt that a trusting relationship was essential and could only be built face-to-face, at least initially. Survey respondents and interviewees recommended

face-to-face contact for delivering sensitive or critical feedback, coaching for physical interactions, or addressing deeper or complex issues with high-level leaders. One coach conducted most of her executive coaching by phone, but said that sometimes a face-to-face meeting became necessary when progress was not happening and she was “trying to figure out what exactly is not working.”

In contrast, some coaches were satisfied with no face-to-face meetings and considered e-coaching to be effective, enabling frequent, casual communication and deploying rich media to build trust and value in the relationship. Similarly, Berry (2006) found equivalent outcomes in the development of a close coach-client working alliance regardless of whether communication was face-to-face or via videoconferencing or speakerphone.

Although credibility and trust can be established at a distance, face-to-face coaching will likely remain necessary for some situations such as coaching for some physical interactions. However, as technology advances, and as the workplace becomes increasingly populated by the millennial generation, perceptions will evolve regarding the essentials of coaching and rapport.

GROUP AND PEER COACHING OFFERED MUCH PROMISE

Particularly interesting to the researcher was enthusiasm for group coaching. Some coaches said they would like to do more group coaching, and a few saw it as the next phase in the evolution of coaching. Peer coaching was ranked the fourth most typical coaching source overall, used more often even than external coaching sources, but one of the least typical coaching sources in the *High Ech* group. Also, higher levels of e-coaching enabled coaching by two or more coaches for one protégé, typically through synchronous tools such as phone, text messaging, or live online collaboration tools. Two or more coaches might include group or peer coaching which can often be used in combination with blended or e-learning and facilitated through webconferencing, screen sharing, conference calls, and live text chat.

Several external coach/consultants felt that peer and group coaching could enhance the effectiveness of individual coaching, an idea supported in the literature. Research has shown the importance of group work for successful behavior and lifestyle change in preventative medicine programs (Ornish, 2008). In addition, online group discussion forums

can help virtual teams overcome intercultural communication difficulties that might be found in one-on-one conversations (Kandola, 2006). However, Sue-Chan and Latham (2004) found that external coaches were perceived as more credible than peer coaches, and this perceived credibility might increase the protégé's satisfaction and performance. Based on his work in leadership and executive coaching, Kets de Vries (2005) believes that group coaching is more effective than one-on-one coaching, for the reasons described below.

Public declaration of intent increases motivation and commitment. Publicizing goals public to the group motivates one to perform by increasing the commitment to change and effort towards goal attainment. The individual wants to save face among peers; the prospect of the group's disapproval is a motivator. This is evidenced by the enthusiasm for online communities and programs for achieving weight loss, smoking cessation, and other behavioral goals. One internal coach in the present study suggested boosting accountability by using web-based tools to support goal setting, assessment, and attainment in groups.

Group process increases trust and increases insight. Relationship-building and trust are critical in organizations, especially for virtual teams or work-groups to be effective and for knowledge management to happen (Kandola, 2006; Kleiner, 2002). The process of group e-coaching can help build trust through self-disclosure, storytelling, and sharing. When individuals share their stories, struggles, and accomplishments with the group, this helps them with self-reflection and self-discovery; listening to others' stories improves learning through examples and role modeling.

Peers provide perspectives different from coaches. Group coaching can enhance coaching effectiveness by offering multiple perspectives at a different level that would not be available from one single coach. Where the coach facilitates self-reflection and discovery, peers provide the context. Peers may be closer to the work or closer to the protégé in terms of level of expertise and experience, more attuned to the relevant situational cues, and thus better able to provide a firsthand perspective about issues, challenges, and possible solutions (D. Leonard & Swap, 2005). One external coach who managed an online coaching competition among relative strangers talked about the advantages of varied perspectives, suggesting that "the idea is to have very different people and receive feedback from people that aren't involved in your particular drama."

Group interaction helps the coach observe individuals in context. One coach believed that group coaching was more effective than individual coaching alone because it allowed her to observe the protégé in relation to other colleagues, to “cut right through to the heart of what is working and what's not working,” and to gain greater insights about his or her behavior in context.

CONTRIBUTIONS

Findings from the present study converge with the literature on human performance technology, social learning theory, and technology adoption, as discussed below.

E-Coaching Is Social and Context-Driven

This study demonstrates that coaching and e-coaching are aligned with theories of social constructivist learning, underscoring the benefits of support delivered in a social way and within the work context. Data revealed that the coaching audience, source, purpose, and organizational environment significantly influenced e-coaching level, technology choices, and perceived e-coaching efficacy. These findings affirm that coaching activities are driven by the individual's desires, goals, and interests, socially constructed and dependent upon challenges and opportunities in the environment.

E-coaching does not cause disconnect between people. Rather, it bridges time and space to strengthen relationships, expand social connections, and integrate learning and work. In the present study, two of the top reasons for using e-coaching among survey respondents were to provide greater access to expertise and multiple perspectives and to provide just-in-time assistance. E-mail and asynchronous collaborative workspaces as well as synchronous tools can easily connect individuals to a network of peers, colleagues, instructors, subject matter experts, and resources. Individuals can use just-in-time technologies to call upon a “guide on the side,” bringing the coach directly into the workflow, where the action is, exactly when a sounding board, confidante, guru, or expert is most needed.

E-Coaching Is Part of a Larger Performance Improvement System

HPT theory suggests that an interrelated system of organizational and individual drivers influence performance; thus, both areas must be considered in order to correct

performance problems or realize opportunities (Addison & Haig, 1999; Pershing et al., 2006; Stolovitch & Keeps, 1999). Drivers call specific performance improvement interventions. One might expect coaching to be most effective for addressing an individual driver such as a lack of skills, knowledge and information, or motivation (Rossett, 1999).

Findings from the present study suggest that e-coaching supports HPT theory. Coaches primarily served as a motivator, often addressing protégé confidence, and organizations used e-coaching to address skills, knowledge, and information gaps by providing just-in-time answers and greater access to expertise and multiple perspectives. Supporting the published coaching literature (D. Leonard & Swap, 2005; Murray, 2001), some coaches believed their efforts were more successful when coaching was voluntary and individually contracted rather than assigned or contracted by the organization because protégés were more committed. Data also showed that coaching was most successful when it was part of a cohesive system. E-coaching was used more as part of a blended solution system rather than standalone, and higher perceived e-coaching efficacy was related to perceptions of a supportive organizational environment.

Successful Adoption and Implementation of E-Coaching

This study considered the influence of three main classes of factors on the implementation and success of e-coaching in organizations: characteristics of the *innovation*, the *organizational context*, and the *individual* participants. Below, each factor is discussed as it relates to perceptions about the innovation and context.

INNOVATION FACTORS INFLUENCING TECHNOLOGY CHOICES

E-coaching is considered a technology and process innovation that includes tools, strategies, purposes, approaches, and participants. Charbonneau (2002) found that the type and complexity of the coaching issue was a major factor in media selection. Similarly, the present study confirms the importance of the nature of coaching engagement in determining e-coaching level and selected tools. The type or depth of the issue, high paying or high ranking clients, voluntary or assigned participation, and the purpose of the coaching were all factors that influenced the use of e-coaching and face-to-face coaching.

Considering the concept of “media richness” proposed by Daft & Lengel (1986), one would expect to find that technologies offering more immediacy, richer cues, and greater humanness would be adopted more readily for coaching purposes than lean technologies. However, that was not the case in the present study. E-mail, electronic file sharing, and talking by phone were the most typical e-coaching technologies in the present study. Asynchronous tools were used more than synchronous tools, and the richest technology, videoconferencing, was reported to play one of the smallest roles in this study.

Rogers’ Model of Diffusion of Innovations (1995) and the Technology Acceptance Model (TAM) (Davis et al., 1989) offer some explanation. Perceptions of e-coaching’s usefulness, complexity or “ease of use,” relative advantage, and compatibility significantly influenced e-coaching level, perceived efficacy, and media selection. More e-coaching was happening when it was advantageous over face-to-face coaching in terms of convenience, cost-savings, efficiency, and greater access to people and resources. More e-coaching was happening when it was compatible with the culture and the way people were accustomed to learning and working. Coaches more readily accepted familiar and easy-to-use technologies, such as e-mail and phone, as compared to complex technologies such as videoconferencing. Therefore, one might conclude that decisions about particular e-coaching technologies involved a balance between media richness and relative advantage, compatibility, and complexity, with coaches in the present study favoring simplicity and familiarity.

ORGANIZATIONAL FACTORS THAT PROMOTED E-COACHING

Findings from the present study support technology adoption theory and the published literature about how organizations can nurture successful coaching (Ely, 1999; Hamilton & Scandura, 2003; Murray, 2001; Stone, 2004). Positive perceptions about a supportive environment were strong predictors of e-coaching level and perceived efficacy, supporting assertions about factors that influence technology acceptance (Davis et al., 1989). When considerable e-coaching was happening, the top four most effective contextual factors included a supportive culture, technology training, pilot testing of coaching programs, and a dedicated program coordinator. Not surprisingly, respondents who perceived e-coaching as an excellent concept, and who reported that their organizations were doing considerable coaching, placed a high priority on coaching. The use of technology-rich blended learning

also resulted in significantly higher levels of e-coaching. It makes sense that having a technology culture where people are accustomed to learning and working with technology, and a coaching culture where coaching is appreciated and supported would increase the adoption and expected growth of e-coaching, as survey data indicated. Findings from this study also confirm that the necessary technologies must be available, and those adopting the innovation must possess the necessary skills and knowledge, with data indicating the importance of ongoing development for coaches including communities of practice, coaching, and technology training.

Coaches touted the importance of structured processes to ensure quality and consistency, including the use of automated tools for managing client relations and tracking accountability for coaching processes and outcomes, and a system for pairing coach with protégé. They also emphasized the importance of communicating about the what, why, and how of e-coaching, supporting the theory that demonstrating commitment and expectations that the innovation will be used are important to success.

IMPLICATIONS FOR PRACTICE

Findings from the present study offer several strategies to help coaches and organizations expand the use and success of e-coaching.

What Individual Coaches Can Do

E-coaches can enhance their coaching effectiveness by using technology-based tools to increase their presence, humanize the experience, connect protégés to peers and other resources, keep track of communications and client progress, and educate themselves about their client's context.

INCREASE PRESENCE THROUGH RICH MEDIA, FREQUENT AND IMMEDIATE TOUCHES, AND MULTIPLE CHANNELS

In an ideal world, we all would have a coach on demand, wherever we go. E-coaching enables coaching on demand, to some extent. Findings from the present study indicate that clients typically used their coaches as sounding boards and for just-in-time assistance, which corresponded with positive perceptions of e-coaching efficacy. Coaches should determine what is emblematic of face-to-face coaching (e.g., the personal attention and dedicated time

that demonstrates commitment, focus, and respect) and then decide how to provide that at a distance. E-coaches can increase their availability through several communication channels, including phone, e-mail, IM/chat, mobile e-mail and chat, and videoconferencing. They can use frequent contact, daily reminders, just-in-time communications, and rich visual media to create a feeling of being there. They can schedule dedicated live sessions by phone or through videoconferencing or webconferencing to demonstrate commitment.

ADD VALUE BY GETTING SMART ABOUT WHAT IS IMPORTANT TO THE CLIENT

E-coaches can use automated tools to keep track of keep track of communications and client progress and to educate themselves about their client's context. They can use reminders about important dates or issues to touch clients on a personal level, sending personal e-mails or handwritten notes to acknowledge accomplishments and provide encouragement. They can use the plethora of online tools such as listservs, portals, and news aggregating software to stay on top of issues related to their clients' industry or particular organization, using that knowledge to share customized resources and demonstrate dedication and concern. One external coach cautioned that while e-coaching technologies are convenient for tracking goals and progress, coaches must be careful not to "do the work of the client." Instead, they must balance their service orientation with ensuring that the client is responsible and accountable for his or her own progress.

SUPPORT PEER, GROUP, AND SELF-COACHING

One surprising finding was how much peer and group coaching was favored by respondents. Some peer and group coaching is happening now, and more is expected. This might include coaching intact work teams, professionals facing similar challenges, student cohorts, and open public coaching forums. Coaches can enhance their effectiveness by using e-coaching technologies to connect protégés to networks of coaches, peers, and resources. Group coaching could be supported with synchronous technologies such as tele-conferencing and webconferencing with audio, video, instant messaging and whiteboarding, and through asynchronous tools including discussion boards as well as collaborative workspaces for sharing resources and tracking progress towards goals. Some coaches in the present study

suggested a combination of coaching by external experienced professional coaches with peer or group coaching.

PLACE COACHING WITHIN A BLENDED SYSTEM

Several interview and survey participants suggested that some sort of “hybrid” approach using face-to-face and virtual coaching would be optimal, even “the next stage of coaching.” A blended coaching approach might involve mixing self-coaching, individual, and cohort coaching with instruction, resources, and learning communities. One external coach in the present study began face-to-face and then migrated to coaching by phone, chat, and e-mail for skeptical clients. Another external coach was planning to provide “leadership toolkits” on a variety of leadership topics using self-paced e-learning materials and live online group coaching sessions using video, audio, and slide presentations archived for later review. These would be supplemented with one-on-one face-to-face meetings to deepen relationships when necessary.

What the Organization Can Do to Promote Success

Organizations can increase the likelihood of successful e-coaching implementation by documenting and communicating the value of coaching and e-coaching and ensuring the proper tools, training and support, and organizational environment that supports e-coaching.

ENSURE A CULTURE SUPPORTIVE OF TECHNOLOGY AND COACHING

To promote e-coaching, organizations should ensure proper program leadership and pilot testing and provide adequate tools and facilities, training and support. They should use tools and processes that promote consistency and scalability of coaching resources, such as systems for tracking, evaluation, recording, and archiving. Perhaps professional organizations or university programs could provide access to facilities or equipment to enable coaches to do more e-coaching through webconferencing and videoconferencing.

INVEST IN EVALUATION TO ADVANCE E-COACHING EFFORTS

Not much was known by respondents or their organization about the results of coaching and e-coaching; two-fifths of respondents said that no evaluation was happening,

and one-fifth did not know. One-third of respondents reported that their organizations evaluated coaching effectiveness using a broad array of measurements. Organizations and individuals need to know how well coaching and e-coaching have delivered on their promises. It is important to seek data to enable continuous improvement and to document successes which can be communicated and promoted throughout the organization to build buy-in and increase widespread adoption.

PROMOTE VOLUNTARY PARTICIPATION

The success of coaching depends upon a willing participant. Even when there is a performance problem to address, organizations should promote the benefits of coaching so that individuals choose to participate voluntarily and then consider carefully before prescribing or requiring coaching. For those who prefer face-to-face, it is wise to make the shift slowly or offer a blended approach as described earlier. Where appropriate, the organization can increase reliance on technology for other learning activities and work-related communications to get people used to virtual communications and increase their readiness for e-coaching. Building e-coaching into the process for new hires so they experience benefits and technologies from the beginning can also promote voluntary participation.

DEFINE AND PROMOTE THE BENEFITS OF E-COACHING

According to theories from HPT and technology adoption, communicating *clear expectations* about the introduction of a new tool or process is critical to success. Concurring with the literature, several coaches agreed on the importance of communicating expectations about the why, what, and how of e-coaching. Interestingly, survey respondents reported ineffective organizational efforts regarding such communications.

Interviewees recommended that organizations and coaches tout the unique, tailored benefits that coaching can offer and convince protégés of the added value of e-coaching to them personally, focusing on efficiency and effectiveness rather than cost-savings alone. They suggested presenting e-coaching for the frequency and immediacy it affords and not as a second-choice alternative to a face-to-face experience. Just as important, protégés must

understand how the process will work, how communication will take place at a distance, and what kinds of outcomes can be expected.

PROVIDE DEVELOPMENT AND SUPPORT FOR E-COACHES

To increase the use and acceptance of e-coaching, coach training and certification programs should integrate and promote technology tools as part of the curriculum. They should model effective strategies for coaching and blended learning. The present study provides the following lessons which may inform the design of training and ongoing development for e-coaches.

- Provide hands-on opportunities for using e-coaching technologies while modeling appropriate use. Have coach/trainees facilitate dynamic live videoconferencing and webconferencing sessions with the instructor and colleagues. Provide just-in-time coaching for coach/trainees using phone, IM, or e-mail right before they meet with a client and have them do the same with their peers.
- Use e-coaching for e-coaches, connecting new coaches with more experienced coaches through one-on-one relationships and in groups. Facilitate peer coaching and knowledge sharing through an online learning community using social networking systems or other collaborative tools.
- Provide advice, tips, and strategies for working smarter with automated tools for client relationship management, research, and ongoing professional development.
- Use an action learning approach. Have coach/trainees develop a plan on how they will improve their coaching practice with e-coaching, what technologies they will use, and how they will increase presence, promote their approach to their clients, and address client concerns and issues that may arise.

FUTURE TRENDS

Globalization, fierce competition, a new generation entering the workplace, rapid advancements in media richness and immediacy, and the omnipresence of technology at work and on the go are some of the trends that will continue to alter the landscape of workplace development and e-coaching. With these and other possibilities, perhaps future research will find that e-coaching is used more to elevate coaching and to do something altogether new, rather than just as an alternative for face-to-face coaching as found in the present study.

Globalization and a Changing Workforce

Work is increasingly complex, virtual, outsourced, and multinational. Managers and employees are often continents and time zones apart. Many in the workforce are nearing retirement. The new workforce is increasingly global, young, and mobile, often characterized by the “millennial” generation’s preference for personalized, on-demand resources. Organizations are pressed to find ways to reduce the distinction between learning and work and to provide learning and support resources when and where they are needed. As most respondents believed, e-coaching will increase to meet these changing workplace demands.

Videoconferencing, Mobile Technologies, and Virtual Reality

Few coaches in the present study had used videoconferencing, and if they had, it was limited. However, most felt that videoconferencing held much promise for e-coaching and many were excited to begin using it. As the technology matures and gains in quality, becomes easier to use, and as the younger tech-savvy generation enters the workplace, videoconferencing will surely become more commonplace for e-coaching. Similarly, mobile technologies increasingly provide opportunities for connecting with coaches, peers, and resources in the moment of need, with rich media such as streaming video, audio, and someday soon, the concept of the “videophone.” One external coach put it this way, “I think taking advantage of interactive video technology would dramatically change e-coaching, and would almost eliminate the need for face-to-face coaching -- except as a ‘nice-to-have’ if there was a reason to do it.” [ID# 15]. In the workplace, some claim that the next stage in the evolution of virtual work involves 3-D immersive virtual worlds. Three-dimensional virtual environments, sometimes involving haptic force feedback systems, might be used to coach for physical activities such as medical procedures or piloting a plane. Future research might explore whether videoconferencing or other e-coaching tools can or should replace face-to-face coaching.

Learning 2.0

Emergent “Web 2.0” technologies for social networking, such as blogs, RSS feeds, Wikis, MySpace, and others are increasing opportunities for virtual socialization and decreasing the central role of face-to-face socialization. At the time of the present study, new

technologies were becoming available which enable users to outfit their websites with a live chat room with three-dimensional images or live video, providing visually immersive, immediate experiences. These technologies are also taking hold in organizations. In 2006, Jeff Howe coined the term “crowdsourcing” to describe the act of outsourcing a task traditionally performed by an employee or contractor to an undefined, generally large group of people, referring to the trend of “leveraging the mass collaboration enabled by Web 2.0 technologies to achieve business goals,” (“Crowdsourcing,” 2007).

It is important to keep in mind the state of the industry at the time of data collection in the present study (i.e., Winter /Spring, 2007): According to Internet timelines (Jupitermedia, 2008; Norman, 2008), Google.com acquired the online social networking video service, YouTube, and became the most visited Web site and “the most valuable global brand,” surpassing Microsoft; MySpace had almost two million accounts; the Wikipedia existed in 100 languages with more than 75,000 active contributors and contained over 1.5 million articles in English; about 12 million Americans maintained a blog; and *Time* magazine named “You” as the person of year (Grossman, 2006), with the author saying:

Look at 2006. . . . It's a story about community and collaboration on a scale never seen before. It's about the cosmic compendium of knowledge. Wikipedia and the million-channel people's network YouTube and the online metropolis MySpace. It's about the many wresting power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes.

The tool that makes this possible is the World Wide Web. The new Web is a very different thing. It's a tool for bringing together the small contributions of millions of people and making them matter. Silicon Valley consultants call it Web 2.0, as if it were a new version of some old software. But it's really a revolution (p.38).

According to *Chief Learning Officer* magazine, 70% of learning on the job involves informal learning, but most organizations are not harnessing its value (Summerfield, 2008). The authors suggest “the blending of formal and informal learning with Web 2.0 technologies” to enhance individuals’ knowledge and social stature and to help organizations improve performance, knowledge management, and organizational talent. Clearly, there is much opportunity for using these technologies to expand coaching connections.

Web 2.0 technologies and life-streaming applications can provide up to the minute information about where people are and what they are doing, reading, and thinking. Coaches and mentors could use these tools to provide “think alouds,” modeling desirable performance

through personal stories and reflections. Through peer-to-peer networks, participants can create a customized database for locating relevant expertise. Individuals seeking to self-coach might turn to social networking and online communities to learn through vicarious experience, role modeling, and verbal persuasion from others. However, individuals must exercise caution when relying on examples, advice, and information from online groups consisting of amateurs and volunteers who may offer untested ideas of questionable quality or effectiveness.

In the present study, coaches most typically served as motivators and integrators, and organizations sometimes used e-coaching to expand the role of instructors/experts. Perhaps future studies will find that emergent technologies rearrange coaching roles and responsibilities. Social networking and collaboration tools may allow certain aspects of coaching to be “crowdsourced” to communities of peers, colleagues, and other participants. These people could serve as motivators, accountability partners, counselors, and integrators. If that happens, individual coaches will serve more as trainers, learning and performance improvement consultants, and experts. It seems clear that e-coaching will continue and perhaps increase and that the role of coaches will continue to evolve along with the technology..

IMPLICATIONS FOR FUTURE RESEARCH

Strengths and Limitations of the Present Study

The research used multiple sources and types of data to address all research questions, gaining a broad perspective about e-coaching at both the macro- and micro-level. Findings provided a description of the current state of workplace e-coaching across different settings and uncovered success factors and leading e-coaching practices.

The web-based survey and study website were convenient, cost-effective, and helped to educate participants so they benefited from the experience. One respondent commented, “This is a very well designed instrument and the items helped me to consider numerous facets of our program that we are doing but are largely taking for granted!” [ID# 343]. Interviews with coaches provided depth and detail to an understanding of e-coaching practices and the factors influencing decisions about what technologies to use when. The survey data helped develop a broad picture of coaching and e-coaching at the organizational

level and found that organizational factors had a major impact on e-coaching level. Findings highlighted areas for practitioners to consider when implementing e-coaching programs and indicated the importance of measuring such factors in future studies of e-coaching effectiveness.

THREATS TO INTERNAL VALIDITY

Every coaching engagement is a unique, highly tailored experience dependent upon individual needs and circumstances. Therefore, it was difficult for survey respondents to answer general questions about *all* coaching happening in the organization. One survey respondent said, “Coaching is used in multiple ways and managed in multiple ways. There is no one answer without drilling into each separate type of coaching process or program within a large organization.” Similarly, one survey respondent said, “My coachees work in diverse organizations so the questions about 'the organization' were a bit problematic for me. Some of my coachees are independents who are working for themselves.” [ID# 388]. With no data from observation, the possibility of inaccurate self-reporting could pose a threat to the validity and utility of the data.

THREATS TO GENERALIZABILITY

Recruitment strategies may have systematically excluded certain groups who could provide useful insights about e-coaching. The study included fewer than 200 respondents from a sample of convenience, and volunteer participants may have differed from non-volunteers which may limit the generalizability of the findings to other populations of workplace learning and performance professionals and coaches. Participants who volunteered for and completed this web-based survey were interested in coaching and e-coaching. They were somewhat tech-savvy, which might explain why those reporting higher levels of e-coaching also reported higher levels of perceived e-coaching efficacy. Participants may have been more aggressive about overcoming challenges and might have been early adopters, more likely to experiment with new approaches as compared to others.

Respondents were recruited primarily through a professional organization that promotes technology-based learning, in addition to other organizations that promote training and development and coaching. Those with a coaching affiliation and serving as a coach reported higher levels of e-coaching. Furthermore, some organization and individual traits

were highly correlated, such as organization size, whether the workplace learning professional was external or internal, and how much of their jobs involved coaching or training and development.

These constraints limit the power of the study's findings and the power of statistical models to predict outcomes in another setting; findings regarding typical coaching topics, practices, sources, and technologies might be different with another more random sample. One wonders about all the people who are doing coaching more informally on a day-to-day basis. And there is the question of managers and peer coaches, with no professional background or specific interest in training and development, who might not think about how they coach or might not do a lot of coaching. Future studies might consider these perspectives and others, as described in the next section.

Opportunities for Future Research

CLARIFY WHAT IS MEANT BY 'E-COACHING'

Further clarification is needed for the term "e-coaching." How is it distinguished from "traditional" or "conventional" coaching, or from a "meaty" discussion with a supervisor or peer? Researchers may care to investigate whether e-coaching is anything more than the use of technology to deliver coaching messages, or if it is coaching that uses technology to elevate and alter the coaching experience, to enable new ways to learn or get a quick answer to a question.

MAXIMIZE SAMPLING VARIATION WITH DETAILS FROM MULTIPLE PERSPECTIVES

Internal and external WLPs. Not surprisingly, the profiles of internal versus external coaches were distinct. Internal coaches served more as generalists, wearing a variety of hats as trainer, learning consultant, and sometimes manager/supervisor in addition to coach. External coaches tended to be specialists and provide mostly coaching, with a smaller client load, and because they worked outside of their clients' workplace, they relied more on e-coaching. Therefore, these two groups tended to address different coaching topics with different audiences and purposes which affected the way they fulfilled their coaching duties. Therefore, future research might benefit by asking different questions of these distinct coaching sources.

Managers who coach. E-coaching was more formal than ad hoc in this study. This finding may be explained by the large percentage of external WLPs in the *High Ech* group, in which case the coaching would be more of a planned, contracted service rather than part of a manager's day to day activities on the job. Furthermore, it is less likely that managers would be members of the professional organizations sampled in this study (i.e., e-learning, training and development, or coaching). Rather, managers would more likely affiliate with communities in their own fields. Different recruiting strategies or sampling methods could be used to gather data from managers who coach within organizations.

Protégés. One way the researcher limited the scope of the present study was to focus on those who deliver and oversee coaching services. Subsequently, this study did not include much of a protégé perspective; no protégés were interviewed, and receiving coaching was a relatively small part of survey respondents' jobs. Future research might consider using a separate data collection instrument for protégés and, if possible, gathering data from matched pairs of protégé and coach.

TRIANGULATE WITH ADDITIONAL DATA

Evaluation data to examine e-coaching effectiveness. It would be useful and interesting to use results data to examine e-coaching efficacy, gathering data during the coaching process and again afterwards. Did more or less e-coaching result in greater participant satisfaction, performance improvement, and business results? Were there differences in outcomes based on what technologies were used, how they were blended with other interventions, and for what purposes and audiences?

The survey did not ask directly about the evaluation of coaches. However, it can be inferred that protégé satisfaction, performance improvements, and results are correlated with coach performance. Gathering data on coach performance and effectiveness and relating that to technology use and e-coaching practices would be an interesting line of inquiry.

Additional demographic data. Data on other individual factors that can affect technology adoption would be useful such as gender, age, self-efficacy beliefs, risk aversion, and prior experience (Grunwald, 2003; Liljander et al., 2006). Furthermore, data on training and development budgets as they relate to e-coaching use and efficacy would be helpful in future studies. Finally, demographic items could provide the choice of an organization size of

“1” or “self-employed” to distinguish independent consultants from very small organizations with two or more employees.

Different approaches for gathering data. More insight could be gained through observation of actual coaching sessions and virtual observation through examination of artifacts such as e-mail, text message exchanges, or recordings of coaching conversations.

DISTINGUISH DIFFERENT TYPES OF COACHING

Future research efforts might benefit from gathering details about certain types of coaching processes and programs, which are unique to individuals and circumstances, including the following.

Specific coaching versus coaching in general. Instead of asking about coaching in general, one might inquire about one particular e-coaching program to explore specifics.

Voluntary versus mandated coaching. A topic for study might be how e-coaching is different when protégés volunteer to participate as opposed to being forced or strongly urged to use coaching.

Ad hoc versus formal coaching. One wonders what differences exist between coaching that is explicitly offered versus coaching that simply happens. Future research could compare formal programs and ad hoc coaching that is part of interactions with managers or peers.

Targeted versus developmental coaching. Future research could distinguish between developmental coaching, coaching for performance problems or remediation, and targeted task-oriented coaching.

New hire training and development. Significantly less e-coaching and more face-to-face coaching was used with new hires in the present study. One might wonder why. Studying the challenges and possibilities for using e-coaching with new hires could be useful. Perhaps it is worth exploring whether new hire training could incorporate more coaching and e-coaching to get new hires on the job more quickly by extending opportunities for learning in context and by fostering social connections with co-workers.

Peer and group coaching. The use and efficacy of peer and group coaching is worth exploring in future studies. Peer coaching was ranked as more typical than coaching from external SMEs or instructors, which surprises, and might be different with a different sample.

Future researchers could investigate the following: how the prevalence of peer coaching is influenced by organization size and industry; who exactly these peer coaches are, their characteristics, and what makes them credible as coaches; how group coaching can be effectively combined with individual coaching; how Web 2.0 technologies and other technologies support peer and group e-coaching; how coaches and organizations can integrate formal coaching efforts and informal coaching from peers inside and outside the organization.

Coaching job aids and other self-coaching resources. There was little mention of coaching job aids in the present study. Interestingly, survey respondents reported that they used self-coaching resources more often than they used external coaches. Some job aids and electronic performance support tools can provide coaching by influencing individuals' attitudes, readiness, and confidence. They can be used before, during, or after performance to promote self-awareness, analysis, and reflection about reasons, feelings, and approaches (Rossett & Shafer, 2006). Future research might investigate the role of technology-based job aids in e-coaching and what distinguishes coaching job aids from other performance support tools and resources. One might examine how self-coaching resources are best used and best combined with other coaching efforts.

EXAMINE THE FACTORS THAT DRIVE DECISIONS ABOUT E-COACHING

Looking more closely at the factors that influence e-coaching tools and processes may provide an interesting avenue for future research efforts, including the following.

The role of motivator and expert. When exploring the most influential innovation factors, serving in the role of motivator and expert both had a negative influence on perceived e-coaching efficacy. This finding was unexpected and deserves further examination. Perhaps when coaches are serving more as motivators this is an indicator of a deeper problem with motivation, in which case e-coaching might not be as effective as face-to-face coaching or other systemic solutions. When coaches are serving more as experts, perhaps this is an indicator that employees lack expertise and thus performance is suffering.

Immediacy versus relationships. When e-coaching was used for just-in-time task support, perceived e-coaching efficacy was greater. It would be important to examine whether the accuracy and immediacy of just-in-time coaching overshadows the importance

of face-to-face relationships. One might explore how different circumstances call for different combinations of immediacy and presence, and how coaches provide just-in-time support and presence, offering the best of both worlds.

Return on investment for face-to-face coaching and synchronous e-coaching.

Coaching was typically delivered through asynchronous technologies, which are more convenient and cost-effective but less rich, more than via synchronous technologies in this study. One might explore whether can coaching ever be completely or mostly done asynchronously, and whether the benefits of synchronous communication, videoconferencing in particular, far outweigh asynchronous efforts. Future research would provide insight into how e-coaches might demonstrate commitment, respect, and caring, and deepen the personal connection at a distance without meeting face-to-face.

CONCLUSIONS

Coaches perceived that e-coaching has the potential to improve consistency and accountability, reach a wider audience, and foster social connections. Coaches can use online collaborative work spaces with individuals or groups to track and monitor progress, share resources, or discuss challenges. Group coaching can boost accountability for goals, provide access to multiple perspectives, encourage the sharing of stories, and facilitate knowledge management and peer-to-peer networks inside and outside the organization. E-coaching is also viewed as a more “green” and resource-efficient solution, providing many benefits associated with better space utilization and reduced energy consumption overall.

Many coaches in the present study believed that technology can facilitate more humanness and presence than face-to-face coaching alone. Technology can increase the frequency of communication, support multiple and rich media, and connect likeminded individuals. Several coaches shared their enthusiasm for the promise of e-coaching to solve problems in context by increasing coaches’ accessibility and availability through just-in-time technologies that insinuate coaching into the workflow.

However, e-coaching offered no panacea. Though coaches in the present study relied heavily on e-mail and asynchronous online collaboration tools, they still turned to face-to-face meetings for some situations. Coaches were attracted to the immediacy and richness of synchronous tools such as Voice over IP (VOIP), videoconferencing, and other “live”

technologies. They mentioned, however, the challenges of limited access, technical complexity, poor quality, and incompatibility with their work setting or clients' expectations. These barriers seemed to lead to lackluster adoption of more sophisticated technologies among coaches and organizations in this study. In spite of limited adoption at the time of this study, videoconferencing, mobile technologies, and Web 2.0 social networking applications are becoming more commonplace in life and in work. Hence, coaching too will likely embrace such technologies in the near future.

No formula for choosing technologies for e-coaching emerged from the study. E-coaching is a socially-constructed interaction. It is dependent upon a dynamic relationship between coach and protégé, the attributes of the communication medium, the type of issues being addressed, and the organizational setting. When choosing an e-coaching approach, coaches and organizations in this study balanced media richness and beliefs about relative advantage, ease of use, and compatibility of e-coaching with workplace values, systems, and needs.

Coaches and workplace learning professionals were positive about e-coaching. They were eager for enhanced technologies, tools, and systems that would raise their professionalism and help them serve their clients more effectively. Their belief in the importance of technology and coaching as a part of future workplace development is supported by the literature. One major concern was to communicate the what, why, and how of e-coaching to clients and organizations. One e-coaching proponent put it this way:

I'm finding it really difficult to articulate how fluid technology is with this industry. It's much more than a complement to the coaching work. I think it's a core piece of it -- the foundation of it. I don't know if it's educating the coaches or if it's educating the clients, or maybe both, about how technology can really enhance the quality. The technology allows me to operate at a higher level with my clients. . . . It takes the industry of coaching to the next level.

This study has been strengthened by the voices of the coaches who participated in interviews and the workplace learning professionals who shared their opinions and e-coaching stories through the survey. Findings affirm that employee development is moving away from classroom instruction to more learning by doing and more individualized, flexible forms of just-in-time learning and support. This study offers several practical suggestions for organizations, individual coaches, scholars, and others interested in the effective design, support, implementation, and study of e-coaching programs.

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APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL

IRB Letter

To: rebeccafrazee@cox.net

Subject: E-Coaching in Organizations: A study of features, practices, and determinants of use

Cc: arossett@mail.sdsu.edu, L.Ermac-Nash@sandiego.edu

Number: 2215

Title: E-Coaching in Organizations: A study of features, practices, and determinants of use

Dear Mrs. Rebecca Frazee:

The project referenced was reviewed and verified as exempt in accordance with SDSU's Assurance and federal requirements pertaining to human subjects protections within the Code of Federal Regulations (45 CFR 46.101(b)). This review is valid through November 6, 2008, and applies to the conditions and procedures described in your protocol. If any changes to your study are planned or you require additional time to complete your project, please notify the IRB office. Additionally, notify the IRB office if your status as an SDSU-affiliate changes while conducting this research study (you are no longer an SDSU faculty member, staff or student).

Please note: If this research involves the use of existing or secondary data sources, information obtained must be recorded so that subjects cannot be identified, either directly or through identifiers linked to the subjects. If information will be obtained from an individual's medical record, please check with the organization authorized to provide access to these records to determine whether regulations relating to the Health Insurance Portability and Accountability Act (HIPAA) pertain to your research. Likewise, if academic records are accessed, Federal Education Rights and Privacy Act (FERPA) requirements must be respected. Notify the SDSU IRB office if protocol revisions are necessary to comply with HIPAA regulations.

For questions related to this correspondence, please contact the IRB office ((619) 594-6622 or e-mail irb@mail.sdsu.edu). To access IRB review application materials, SDSU's Assurance, the 45 CFR 46, the Belmont Report, and/or any other relevant policies and guidelines related to the involvement of human subjects in research, please visit the IRB web site.

Graduate Students: This letter may be used to verify approval by the SDSU Institutional Review Board (IRB) for enrollment in Thesis 799A. If you are not presently enrolled in 799A, attach the enclosed copy of this letter to your Appointment of Thesis/Project Committee form prior to submitting the completed form to Graduate and Research Affairs – Student Services Division. If you enrolled in 799A using the IRB e-mail notification, please forward the enclosed copy of this final approval letter to the Graduate Division for completion of your record.

Amy McDaniel
Regulatory Compliance Analyst
619-594-0758

Institutional Review Board
Division of Research Affairs
San Diego State University

APPENDIX B
PILOT TESTING PROTOCOL

Pilot Testing Protocol

<p>Expert review</p>	<p>The following fourteen experts reviewed the instrument items in paper-form.</p> <ul style="list-style-type: none"> • Workplace learning and performance professionals: The researcher's personal colleagues representing business, higher education, and consulting. <ul style="list-style-type: none"> ○ Experts on my dissertation committee including Rossett, Galloway, and Hoffman. ○ WLP and instructional design experts: F. Douglas, L. Shafer, J. Frazee, J. Nash ○ Research contacts from eLearning Guild (H. Fisk, S. Wexler) • Coaches: Send interview to coaching experts for their review: <ul style="list-style-type: none"> ○ Senior level coach from Ken Blanchard Companies (L. Miller) ○ Senior level human resource managers from two global high-tech companies with coaching and extensive WLP and organizational experience (C. Miller, K. Hanson). ○ Business Coaches (e.g., C. Piedro, G. Marino)
<p>Pilot test survey in web-based format</p>	<ul style="list-style-type: none"> • Seven experts in research, instructional design, learning and performance, and web-based design usability tested the survey in web-form. • E. Beale, J. Bannon, D. Papaila, K. Boyle, S. Wexler, G. Marino, J. Frazee

APPENDIX C

RESEARCH STUDY WEBSITE FOR SURVEY

Research Study Website for Survey

Mapping the Terrain of E-Coaching in Organizations

A study of how e-coaching is being used in organizations, including features, practices, and factors that may influence its use

By Rebecca Vaughan Frazee,

Doctoral Candidate in Educational Technology, USD/SDSU

Thank you for your interest in this important study of e-coaching in organizations!

Who is conducting this research?

My name is Rebecca Vaughan Frazee. To learn more about me, see my brief bio below. I am conducting this research as part of my doctoral studies in educational technology, under the direction of Dr. Allison Rossett and Dr. Bob Hoffman at San Diego State University, and Dr. Fred Galloway at the University of San Diego, School of Leadership and Education Studies.

The necessary WIIFM...What's in it for me?

I understand that your time is very valuable. For completing the survey, you will receive the following:

- Immediate results of select survey items from all survey participants to date.
- A brief report that summarizes key findings from this survey and interviews of over a dozen e-coaches.
- Personal satisfaction in knowing that you have helped shape the understanding of the field.
- My immense gratitude!
- And, last but not least...

Extended opportunity!

Complete the survey by

April 10th

and you will be entered into a

drawing

for a chance to win

one of two 30 Gig video iPods!



What exactly is e-coaching?

Good question. For the purposes of this study, I am defining e-coaching as coaching that is provided partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. E-coaching may be done by phone, e-mail, or other computer-mediated communications, and in combination with face-to-face coaching.

I have purposefully avoided defining "coaching," as my study is exploratory and I want to see if what is considered "coaching" changes with the injection of technology. The only way I'm narrowing it for the study is by looking at coaching done for work related purposes, not life or personal coaching.

I am interested in "formal" coaching done as part of defined programs that are stand alone and tied to training and other development efforts, as well as informal coaching done as part of day-to-day work in the field. Coaching for development and coaching for just-in-time answers and expertise. Coaching done by managers, trainer/facilitators, professional coaches, and peers as well as resources people use to "self coach."

Criteria for participation in the study

In order to be eligible for this study, you must answer YES to all three of the following statements:

- I am at least 18 years of age.
- I am involved in the design, delivery, implementation, coordination, or leadership of face-to-face coaching and/or e-coaching services or programs (Note: you do not have to be a coach to participate in this survey.)
- I have been involved in face-to-face coaching and/or e-coaching *for work-related purposes* at some time during the last 18 months.

What about confidentiality?

Your responses will be kept strictly confidential and will be used only for research purposes. The researcher will aggregate your responses along with others'. If you choose to provide your e-mail address in order to receive the report, your contact information will be kept separately from your survey responses. You are assured that you will not receive any commercial solicitations as a result of your participation in this study. The researcher is an independent individual and has no affiliation with any commercial entity. Your participation is entirely voluntary, and you can withdraw at any time if you wish to do so.

Take me to the survey!

By clicking the following link, you acknowledge that you are eligible for the study and agree to participate.



**** Click here to participate in the survey ****

(Or alternately, paste the following URL into your browser window:)

<http://www.surveymonkey.com/s.asp?u=565163309538>

Other ways to participate in this important research

Do you want to share your e-coaching story, or know someone who would?

Please click here to share your e-coaching story or send the link to a colleague.

(<http://www.surveymonkey.com/s.asp?u=525843112075>)

Are you a coach who is interested in being interviewed for my study?

Click here to find out more.

Do you have any referrals?

If you know someone who might be appropriate and interested in participating in my study, please send them to this page -- study description and call for participation in the survey. Or e-mail me with their contact information.

Additional Information

Purpose of the study

The purpose of this exploratory and descriptive study is to map the terrain of e-coaching as it is being used in organizations today, and to identify e-coaching success factors. The study examines technologies and practices used to deliver coaching, as well as how e-coaching services and programs are implemented and supported.

For more information about the study

Feel free to contact the following individuals:

- Rebecca V. Frazee, doctoral student and principal investigator [rfrazee@rohan.sdsu.edu]
- Dr. Allison Rossett, dissertation advisor [arossett@mail.sdsu.edu]
- For questions about your rights as a research participant in a university-affiliated study, contact the Institutional Review Board offices at San Diego State University at irb@mail.sdsu.edu, (619) 594-6622.

Researcher's Bio

Rebecca Vaughan Frazee has been working as an instructional designer and performance consultant for over a decade. She has taught graduate courses in educational technology, and has managed several large-scale projects including face-to-face and technology-based solutions for national, global and Fortune 50 companies. Her work centers on the development of workforce learning and performance professionals, helping them expand their focus beyond training to more systemic performance solutions, and supporting them in the move to performance consulting, e-learning and blended learning. Rebecca has worked on studies and projects for Applied Materials, Motorola, Fidelity Investments, PricewaterhouseCoopers, Prudential Securities, Eli Lilly, TEC International, the Corporation for National Service, NASSCO, San Jose State University, and the IRS. Her most recent publication is a white paper for the American Management Association titled *Blended Learning Opportunities* (available online at www.amanet.org). Other publications include *Technology adoption: Bringing along the late-comers* in the 2001 ASTD E-Learning Handbook, and *Using Relevance to Facilitate Online Participation in a Hybrid Course* in *EDUCAUSE Quarterly* (2003, vol. 26(4), p. 67-69). Rebecca lives in San Diego with her husband and their delightful two-year old son. She can be reached at rfrazee@rohan.sdsu.edu.

APPENDIX D

RESEARCH STUDY WEBSITE FOR INTERVIEW

Research Study Website for Interview

Mapping the Terrain of E-Coaching in Organizations

A study of how e-coaching is being used in organizations, including features, practices, and factors that may influence its use

By Rebecca Vaughan Frazee,

Doctoral Candidate in Educational Technology, USD/SDSU

Are you a coach who is interested in being interviewed for my study?

In addition to the e-coaching survey, I am also looking for coaches with any level of coaching experience who meet the following criteria:

- You have provided some form of e-coaching, as defined below, for work-related purposes at some time during the last 18 months.
(Note: You may also provide "life coaching" or "personal coaching," but I won't be asking about those types of coaching for the current study.)
- You work as a coach part-time or full-time.
- You are either connected to an organization or working as an independent consultant.

What exactly do I mean by e-coaching?

Good question. For the purposes of this study, I am defining e-coaching as coaching that is provided partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. E-coaching may be done by phone, e-mail, or other computer-mediated communications, and in combination with face-to-face coaching.

I have purposefully avoided defining "coaching," as my study is exploratory and I want to see if what is considered "coaching" changes with the injection of technology. The only way I'm narrowing it for the study is by looking at coaching done for work related purposes, not life or personal coaching.

I am interested in "formal" coaching done as part of defined programs that are stand alone and tied to training and other development efforts, as well as informal coaching done as part of day-to-day work in the field. Coaching for development and coaching for just-in-time answers and expertise. Coaching done by managers, trainer/facilitators, professional coaches, peers, and so on.

If you meet the above criteria, I would love to learn about your e-coaching experiences! For more information, or to move forward in scheduling an interview, please e-mail me right away at rfrazee@rohan.sdsu.edu.

I know that your time is very valuable. For participating in an interview, you will receive the following:

- A current literature review of coaching and e-coaching.
- Potential publicity, if you give consent for me to include your name or contact information in any publications (otherwise, your interviews will be kept strictly confidential and reported anonymously).
- A brief report summarizing key findings from the survey and interviews with other e-coaches.
- Satisfaction knowing that you have contributed to the growing knowledge base on coaching and helped shape our understanding of the field.
- Finally, my immense gratitude!

Additional information

- Study of E-coaching in Organizations - Study description and call for participation.
- The eLearning Guild
- San Diego State University - Department of Educational Technology
- University of San Diego - School of Leadership and Education Sciences

APPENDIX E

WEB-BASED SURVEY – FINAL VERSION

Survey of E-Coaching In Organizations

Introduction

Mapping the Terrain of E-Coaching in Organizations

By Rebecca Vaughan Frazee

Thank you for participating in this important study of e-coaching in organizations. This survey is divided into two sections.

Section 1 is required, takes about 10 minutes, and covers demographics, technologies and practices used to deliver coaching, and participants (coaches as well as those who receive coaching – here we're calling them "protégés" or "coachees").

Section 2 is optional, takes about 10 minutes, and covers factors that impact how coaching programs are implemented and supported.

***** You have not one, but TWO chances to win a video iPod!! *****

You will be entered into a drawing to win
one of two available iPods for each section you complete.
 So please...**take the extra few minutes to complete the optional section
 and double your chances for a video iPod!!**

Terminology and Instructions for this survey:

- **"Coaching"** refers to all formal and informal coaching, regardless of how it is delivered. This includes both *e-coaching* and *face-to-face (F2F)* coaching.
 - NOTE: When responding to this survey, please think about your experiences during the past 18 months with all coaching in the organization, unless the question asks about e-coaching specifically.
- **"E-coaching"** refers to coaching that is provided partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. E-coaching may be done by phone, email, or other computer-mediated communications (CMC), and in combination with face-to-face coaching.
- **"The organization"** refers to the place where you are employed, or the client organization if you are an external consultant.

You and your organization ~ page: [1...](#)

* 1. Please select the role that best describes you.

- I am an internal workforce learning and performance professional (WLP) (i.e., I provide services to one organization where I am employed.)
- I am an external WLP (i.e. I provide services to one or more organizations where I am not an employee.)

* 2. How much of your job involves the following activities?

	Not part of my job				Big part of my job
Designing or managing coaching programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serving as a coach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving coaching as a protégé/coachee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delivering or facilitating face-to-face instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delivering or facilitating online instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey of E-Coaching In Organizations

*** 3. What is your primary division, department, or focus?**

*** 4. What type of organization do you work for, primarily?**

*** 5. Where is your organization headquartered?**

- United States
 Japan
 China
 United Kingdom
 Latin America
 Canada
 Asia
 Australia/New Zealand
 Europe
 India

*** 6. How many employees are in the organization?**

Coaching practices ~ page: 12 ...

*** 1. How much of a priority is coaching in the organization?**

Not much of a priority

Top priority

*** 2. In your best estimate, how much coaching is happening in the organization?**

- A lot of coaching is happening (75% or more employees are engaged in coaching)
 Some coaching is happening
 A little coaching is happening (fewer than 15% of employees are engaged in coaching)

*** 3. How would you rate the success of the coaching that's been happening in the last 18 months?**

- Poor
 Marginal
 Satisfactory
 Outstanding
 Superior

*** 4. How often is coaching used to address the following topics?**

Rarely

Typically

Leadership skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sales skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consulting skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaching or facilitation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coaching or mentoring skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adapting to organizational change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balancing career, personal life, stress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cross-cultural or global sensitivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey of E-Coaching In Organizations

5. Any other topics addressed by coaching? Please specify.

*** 6. How often is coaching used for the following purposes?**

	Rarely				Typically
<u>Boost top or high-potential performers.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Improve low, mediocre, or problem performers.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Improve the application of skills learned in training.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Accelerate individuals' time-to-competency.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Prepare for promotion or future job demands.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Increase cross-functional capabilities.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Provide assistance on a specific task or assignment.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Add a human component to virtual courses or communications.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>As a perk or luxury available only for certain employees.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>As a strategic advantage for the organization.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Any other purposes for using coaching? Please specify.

*** 8. How often is coaching used in the following ways in the organization?**

	Rarely				Typically
<u>Coaching is ad hoc and informal, part of day-to-day activities, not part of a coaching program or initiative.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Coaching is formal or planned, part of an explicit coaching program or initiative.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>E-coaching is used as an alternative way to deliver coaching that would have otherwise been done face-to-face.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>E-coaching is used to do different things that may have never been done with face-to-face coaching.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>There is a clear distinction between face-to-face and e-coaching programs or services.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey of E-Coaching In Organizations

*** 9. When coaching is part of a "blended learning" solution, how often are the following components also involved?**

	Rarely				Typically
<u>Asynchronous e-learning modules (web-based learning)</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Synchronous web-based instruction or "live elearning"</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Face-to-face classroom instruction</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Communities of practice for discussion and collaboration among employees who are being coached on similar issues.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Electronic performance support system software (e.g., embedded help, expert or "smart" systems, etc.)</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Knowledge/content/learning management systems</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Performance management assessments, testing, inventories</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Online references, resources, or learning materials</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Any other blended learning components partnered with coaching? Please specify.

*** 11. How is coaching typically positioned as part of a blended strategy?**

- Coaching is stand alone, not integrated in a blend.
- Coaching is just one option in the blend.
- Coaching is the centerpiece of the blend.

Survey of E-Coaching In Organizations

*** 1. How often is coaching used to target the following audiences?**

	Rarely				Typically
<u>Executives, "C" levels, VP's or equivalent</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Senior or mid-level managers or equivalent</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>1st line supervisors or equivalent</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Line employees or equivalent</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Expatriates working overseas</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>New hires</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Intact work teams</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Women</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Ethnic minorities</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Any other audiences targeted by coaching? Please specify.

*** 3. How often do the following sources provide coaching?**

	Rarely				Typically
<u>An employee's direct supervisor/manager</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>An employee's peer</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>An internal subject matter expert</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>An external subject matter expert</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>An internal instructor or facilitator</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>An external instructor or facilitator</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Two or more coaches for one employee</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Employees use resources to "self coach"</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Any other sources provide coaching? Please specify.

Survey of E-Coaching In Organizations

<input type="radio"/>	_____
<input type="radio"/>	_____
<input type="radio"/>	_____
<input type="radio"/>	_____
<input type="radio"/>	_____

Talking over a land line telephone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicating by email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talking over Internet telephony or voice over IP (VOIP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicating through video conferencing (e.g., web-based, ISDN, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicating via real time text messaging (e.g., live text chat, instant messaging, or short text messaging)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using real time online collaboration tools to do screen sharing, slide presentations, shared whiteboards, application sharing, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using asynchronous online collaboration tools (e.g., threaded discussion boards, Wikis, Blogs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using recorded audio or video resources for coaching purposes (e.g. MP3 files, podcasts, CD's, audio/video cassettes, DVDs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing files electronically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using an online system specifically meant to support, facilitate, or manage the coaching process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching a database of skills or "who's who" to locate relevant experts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey of E-Coaching In Organizations

or resources
 Recording and archiving coaching sessions for review

Our people are asking for e-coaching.

Others are doing e-coaching and we want to keep up.

Our people are accustomed to working virtually, and e-coaching is a natural fit.

To serve geographically dispersed employees.

To address issues of scheduling or limited availability for development activities.

To make the coaching experience more private or confidential.

To lessen disruption in the workplace.

To reduce costs.

To reduce time in courses or classes.

To provide just-in-time answers for immediate needs.

To provide greater access to expertise and multiple perspectives.

To encourage work-related relationships between veterans and neophytes.

To expand the role of instructors/experts.

In conclusion

Survey of E-Coaching In Organizations

1. Is there anything you'd like to add that would help to clarify your responses, or help us better understand e-coaching and the impact of technology for coaching in organizations?

2. What is your age?

- Under 25
 25-34
 35-44
 45-54
 55-64
 65+

3. What is your gender?

- Male
 Female

4. Approximately what year did you begin working in a field related to workforce learning and performance?

5. Where did you hear about this survey?

- eLearning Guild
 Other (please specify)

Thank You...Now Moving On

Thank you for completing the first section of the survey! You will be entered for a chance to win an IPOD. You will be asked to provide your email address to enter into the drawing and to receive the survey report as promised.

*** 1. Can you spend a few more minutes to complete the optional section and enter for another chance to win a video IPOD?**

- Yes, I'd like to complete the optional section and double my chances of winning an IPOD!
 No thanks. Take me to the closing page.

II: Coaching implementation

Thank you for choosing to complete this second, optional portion. You will be entered for another chance to win!

Survey of E-Coaching In Organizations

*** 1. How often do coaches play the following roles with their protoges/coachees?**

	<u>Rarely</u>				<u>Typically</u>
<u>Motivator who provides support and encouragement.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Integrator who connects to useful people, tools, resources.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Learning consultant who recommends development paths and helps employees assess development needs and prioritize efforts.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Trainer who presents new information, models, asks questions, prompts behavior, and provides feedback.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Counselor who guides personal and professional growth.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Disciplinarian who addresses problem employees or performance.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Performance monitor who observes and assesses performance and progress.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Expert who provides answers, specialized knowledge or experience as needed.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Any other roles that coaches play?

Survey of E-Coaching In Organizations

* 3. How effective are the following elements in the organization?

	<u>This doesn't exist in the organization</u>	<u>Very Ineffective</u>	<u>Somewhat Ineffective</u>	<u>Somewhat Effective</u>	<u>Very Effective</u>
<u>A culture supportive of those who rely on coaches.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A communication campaign about the what, why, and how of coaching programs.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Pilot testing of coaching programs.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A dedicated coordinator to oversee coaching programs.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A system for matching coaches with protégés/coachees.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A way to recognize/reward those who serve as coaches.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A system to assess whether someone is ready to be a coach.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>A system to assess whether someone is ready to receive coaching.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Training and support for coaches on how to coach.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Training and support for protégés/coachees on how to maximize the coaching experience.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Training and support on how to use available computer technologies.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 4. In your opinion, over the next 18 months the use of e-coaching in the organization will:

- Don't know
 Decrease significantly
 Decrease moderately
 Stay the same
 Increase moderately
 Increase significantly

* 5. Please rate your agreement with the following statements about e-coaching.

	<u>Strongly Disagree</u>				<u>Strongly Agree</u>
<u>a) E-coaching is a great concept with lots of potential.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>b) Coaches who do e-coaching have an advantage over coaches who only offer face-to-face coaching.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>c) There are some situations in which coaching can only be done effectively in person, face-to-face.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey of E-Coaching In Organizations

6. If you agree that some situations require face-to-face coaching, please give an example.

*** 7. Does someone measure the effectiveness/success of coaching programs and services in the organization?**

- Yes.
- No.
- Don't know. Not sure

II: Measuring success

*** 1. How often are the following criteria used to measure the effectiveness of coaching?**

	Rarely				Typically
<u>Those employees being coached have a positive experience.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Coaches have a positive coaching experience.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>New skills or knowledge are acquired.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Performance improves.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>There is a positive impact on organizational results (e.g., increased sales, safety, customer satisfaction, etc.).</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Anything else used to measure coaching's effectiveness?

*** 3. When is coaching's effectiveness measured?**

	Rarely				Typically
<u>Before: Baseline/benchmarking data is gathered before coaching begins.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>During: Data is gathered during the process.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>After: Data is gathered within 3 months after the coaching engagement has concluded.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<u>Well after: Data is gathered 4 months or more after the coaching engagement has concluded.</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I: Next steps

Survey of E-Coaching In Organizations

Thank you so much for your time and generous contribution to this study!

As promised, for completing the first section of the survey, you now have ONE entry into the drawing for one of two video iPods. And, I will email you a report summarizing the survey results. To be entered into the drawing and to receive the report, please make sure to provide your email address below. You are assured that the contact information you provide here will be stored separately from your survey responses, and will be kept strictly confidential and used only by the researcher for research purposes.

Would you like to complete the other section of the survey to double your chances for a video iPod?

If so, scroll down to the bottom of this page and click the "Go Back" button to go back, and then choose "Yes" to complete the next survey section.

Would you like to share a story of what's great (or not so great) about e-coaching?

Before I take you to the page where you can view the survey results, I am asking you to please partner with me on further research about coaching and e-coaching. In addition to this survey, I am also gathering e-coaching stories and looking for e-coaches to interview to help identify success factors and best practices.

*** 1. Would you like to be entered in the drawing for a chance to win an iPod?**

No.

Yes. Here is my email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

*** 2. Would you like me to email you a report summarizing the survey findings?**

No

Yes. Use the email address I provided above.

Yes. Use this email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

*** 3. Would you like to share a story about your experiences with e-coaching?**

If so, I will contact you in the next few weeks with a URL to a website where you can share your story, anonymously if you choose.

No, I don't have a story to share.

Yes. Use the email address I provided above.

Yes. Here is my email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

Survey of E-Coaching In Organizations

*** 4. Do you know someone who is currently providing e-coaching who might be willing to be interviewed by the researcher?**

- No.
- Yes. Here is the name and email address of each referral so that Rebecca may contact them about their e-coaching experiences.

II: Next steps

Thank you so much for your time and generous contribution to this study!

As promised, for completing both sections of the survey, you now have TWO entries into the drawing for one of two video iPods. And, I will email you a report summarizing the survey results. To be entered into the drawing and to receive the report, please make sure to provide your email address below. You are assured that the contact information you provide here will be stored separately from your survey responses, and will be kept strictly confidential and used only by the researcher for research purposes.

Would you like to share a story of what's great (or not so great) about e-coaching?

Before I take you to the page where you can view the survey results, I am asking you to please partner with me on further research about coaching and e-coaching. In addition to this survey, I am also gathering e-coaching stories and looking for e-coaches to interview to help identify success factors and best practices.

*** 1. Would you like to be entered in the drawing for two chances to win an iPod?**

- No.
- Yes. Here is my email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

*** 2. Would you like me to email you a report summarizing the survey findings?**

- No
- Yes. Use the email address I provided above.
- Yes. Use this email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

*** 3. Would you like to share a story about your experiences with e-coaching? If so, I will contact you in the next few weeks with a URL to a website where you can share your story, anonymously if you choose.**

- No, I don't have a story to share.
- Yes. Use the email address I provided above.
- Yes. Here is my email address (Make sure it is entered correctly -- this is the only way I have to contact you.)

Survey of E-Coaching In Organizations

*** 4. Do you know someone who is currently providing e-coaching who might be willing to be interviewed by the researcher?**

No.

Yes. Here is the name and email address of each referral so that Rebecca may contact them about their e-coaching experiences.

You are done!

Now, the link below will take you to the results page.

Thanks again for your time, and good luck winning the iPod!

APPENDIX F

IMMEDIATE WEB-BASED SURVEY RESULTS

Screen shot example of survey results

Mapping the Terrain of E-Coaching in Organizations:

A study of how e-coaching is being used in organizations, including features, practices, and factors that may influence its use

By Rebecca Vaughan Frazee
 Doctoral Candidate in Educational Technology, USD/SDSU
 Spring 2007

Thank you again for your contribution to this important study of e-coaching in organizations! Please make sure to complete the survey and provide your email address so you can receive the report summarizing key findings from this survey and interviews of over a dozen e-coaches. Remember, if you exited the survey before completing it, you may go back and pick up where you left off.

Below are the results from select survey items, updated on a regular basis as new data come in. Please check back to see how the results change with additional responses.

Data last updated: March 26th, 2007

- 1. How is most coaching delivered in the organization?
- 2. What role do the following technologies play for delivering coaching?
- 3. Which of the following are reasons for using e-coaching in the organization?
- 4. How often is coaching partnered with the following blended learning components?

1. How is most coaching delivered in the organization?

	Response Percent	Response Total
Coaching is done <u>exclusively at a distance</u> or "virtually," with NO face-to-face coaching (e.g., coaching happens by phone, email, and other computer technologies)	6.8%	8
Coaching is <u>primarily done virtually</u> , with some coaching done face-to-face.	18.6%	22
Coaching is conducted <u>about equally</u> face-to-face and virtually.	19.5%	23
Coaching is <u>primarily done face-to-face</u> , with some coaching done virtually.	44.9%	53
Coaching is done <u>entirely face-to-face</u> , with technology only used for administrative tasks, if at all.	10.2%	12
Total Respondents		118

2. What role do the following technologies play for delivering coaching?

	No role				Major role	Response Average
Talking over a <u>landline</u> telephone	11% (13)	14% (16)	13% (15)	22% (26)	41% (48)	3.68
Communicating by email	1% (1)	10% (12)	14% (17)	34% (40)	41% (48)	4.03
Talking over Internet telephony or voice over IP (VOIP)	47% (55)	18% (21)	13% (15)	8% (10)	14% (17)	2.26
Communicating through video conferencing (e.g., web-based, ISDN, etc.)	48% (57)	19% (22)	17% (20)	12% (14)	4% (5)	2.05
Communicating via real time text messaging (e.g., live text chat, instant messaging, or short text messaging)	45% (53)	19% (23)	14% (17)	12% (14)	9% (11)	2.21
Using real time online collaboration tools to do screen sharing, slide presentations, shared whiteboards, application sharing, etc.	42% (49)	26% (31)	15% (18)	9% (11)	8% (9)	2.15

APPENDIX G
INTERVIEW INSTRUMENT

Mapping the Terrain of E-Coaching in Organizations

Interviews with Coaches

Telephone Interview Protocol

Introduction

Thank you for taking the time to be interviewed. This should take about 45 to 60 minutes. The purpose of the interview is to gather information about your experiences with e-coaching.

For the purposes of this study, I am defining e-coaching as coaching that is provided partially or entirely at a distance, using technology for purposes other than simply scheduling appointments and completing administrative tasks. E-coaching may be done by phone, e-mail, or other computer-mediated communications, and in combination with face-to-face coaching.

For the current study, I am interested in coaching that is done for work-related purposes, not “life coaching” or “personal coaching.”

Our conversation and your responses will be kept confidential and will never be associated with your name or organization without your permission. Your responses will be aggregated with other interviews into a final report. I may want to quote you in a report or publications, but your name and anything that could be used to identify you personally or a particular organization will be altered or withheld to mask your identity.

This interview will consist of three main sections. First, I will ask you a little about your background and coaching practices. Next, I will ask you about a stand-out e-coaching experience you’ve had in the last 18 months, when you were using technology to provide or support your coaching services. Finally, I will ask you some questions about your attitudes and beliefs about coaching and e-coaching in general.

- Do you have any questions?
- I will tape record this interview only so that I can transcribe our conversations accurately. Do I have your permission? I will start the tape recorder now and get verbal consent on tape.

Part One: Background and General Coaching Practices

- 1) Please describe in 1 to 2 sentences the kind of coaching that you do.
- 2) Now, a little about you:
 - a) How long have you been a coach?
 - b) On average, how many hours per week do you spend coaching, not including marketing, administrative tasks, or building your business?
 - c) How did you get started with e-coaching?
 - d) What coach training have you received, if any? Coach training school or program? Any training specific to using technology or e-coaching?
 - e) Do you hold a coaching certification?
 - f) What professional organizations do you actively participate in?
 - g) How would you describe your own level of “tech-savvy” or computer skill and that of your coaching clients?

- 3) Now I'd like you to describe the coaching clients you typically serve.
- What term do you use to describe the people you coach?
 - What kinds of jobs/positions do your <people> hold?
 - What is your typical coaching load? How many <people> do you typically serve at a given point in time?
 - Of your total coaching load, for what percentage do you use e-coaching versus strictly f2f coaching?
 - > *In general, are there any differences between your e-coaching versus your f2f clients?*
 - Approximately what percentage of your <clients> are male?
 - Approximately what percentage of your <clients> are in an ethnic minority or underrepresented group, including males and females?

Part Two: E-coaching practices

Now I'd like to talk about the roles, activities, processes, and strategies involved in e-coaching.

- What common themes or skill areas do you address with your e-coaching clients?
 - > How does this compare to the skill areas for f2f clients?
- How do you get matched up with your e-coaching clients?
 - > How does this compare to the process for f2f clients?
- What's the typical duration of the defined coaching relationship you might have with a particular e-coaching <client/person> (for instance weeks/months/years)?
- How would you describe the main roles you serve or hats you wear as an e-coach?
 - > Prompt: For instance, you might be a motivator, trainer, counselor, disciplinarian, performance monitor, connector or match maker, guru, etc.
 - > How does this compare to the relationships with f2f clients?
- What technologies do you primarily use for coaching? Any others you have used for coaching?
- How has your coaching changed with the use of <the technologies just listed>?
 - How do e-coaching and f2f coaching compare?
 - Probe: How do processes, practices, and strategies compare?
 - Probe: Is e-coaching used for different purposes, settings, or applications than f2f coaching?

Part Three: Critical Incidents

In this section of the interview, I'll ask you to describe an example of e-coaching that you have personally experienced in the last 18 months. You will get a chance to share as many examples as you like.

Please think of a situation, event, or series of events that stands out because it was a particularly effective OR particularly ineffective example of e-coaching. I'd like you to describe the key elements of this experience with enough detail so that it can be clearly understood by others. Remember, I am interested in an event or series of events, not just a particularly outstanding individual.

Here are some questions to assist you in telling your story.

- Please give a brief overview of the experience. (This might include the setting, circumstances, purpose, people involved, technologies, methods, materials, timing, outcomes, and so on.)
- What are the key elements that made this e-coaching experience effective (or ineffective)?
- What was particularly challenging about this situation?
- How could you tell whether or not things were going well?
- What specific technologies did you use and what role did those technologies play?

Probe for each different technology mentioned;

 - How effective was >>>?*
 - What did you use >>> for? What purposes?*

- c) *What problems did you encounter with >>>, if any?*
- d) *What strategies did you use to make >>> work for you?*
- 6) What other technologies could have been equally or even more effective?
- 7) How did your choice of technology contribute to making this experience effective (or ineffective)?
- 8) What factors influenced your decision about how the coaching process would work and how technology would be used?
 - i) (Probes: *Travel costs, Scheduling, Organizational culture, Established guidelines, Billing or contracting issues, Client's particular industry, Nature of the issue to be addressed, Client's individual characteristics (rank, culture/ethnic background, personality traits, age or other demographics), Where you are in the coaching process (just starting, well established, wrapping up the service)*)
- 9) What lessons did you learn from this experience?
- 10) Any other comments about this particular experience?
- 11) Now, do you have another standout e-coaching experience you would like to share?

(IF YES, repeat questions above. Continue to ask about other e-coaching experiences until there are no more.)

Part Four: Possibilities for using technology for coaching

- 10) In your opinion:
 - a) What do people value most about coaching?
 - b) How can e-coaching best be used to deliver or support that?
- 11) In terms of specific coaching purposes, goals, activities, or parts of the process, when is e-coaching most appropriate and effective, and when is it least appropriate and effective?

Probes/Themes – from ICF competencies

Setting the foundation?

Co-creating the relationship?

Establishing trust, rapport, or intimacy?

Supporting coaching presence?

Communicating effectively?

Active listening?

Powerful questioning?

Direct communication?

Facilitating learning and results?

Creating awareness?

Planning and goal setting?

Completing a valid assessment?

Providing feedback?

Teach new skills or new content?

Providing information, advice, or answers?

Role-playing or practicing skills?

Managing accountability and progress towards goals or action plans?

Reinforcing performance through ongoing reminders and encouragement?

- 12) What would you like to be doing more of with e-coaching?
 - a) What technologies would you like to use next?

- b) How could you make that happen?
- 13) For e-coaching to be successful:
- a) What must the organization do?
 - Probes: Policies? Development? Incentives? Processes? Purchases?
 - b) What must coaches themselves do?
 - c) What must <clients/people> do?
- 14) What else would you like to add that will help others understand e-coaching?

*****Referral:** Do you have anyone you might refer who might be appropriate to be interviewed for this study?

MORE ITEMS / Reference

- 15) As part of your e-coaching, how much of your job is spent serving the following roles? First, I'll read each of 8 different roles, then I'll go back and have you rate each one on a scale from 1 to 5. 1 meaning, "this is not part of my job" to 5 meaning, "this is a big part of my job."

Here are the roles:	Rating
a. Motivator , known for providing support and encouragement.	
b. Integrator or match-maker, known for finding and connecting my clients to the right people and resources that possess the necessary expertise.	
c. Learning consultant , known for helping my clients assess their development needs, prioritizing efforts or recommending development paths, and finding relevant high-quality development opportunities (e.g., tools, activities, resources)	
d. Trainer , known for presenting new information, modeling, asking questions, prompting behavior, and providing feedback.	
e. Counselor , known for guiding and supporting employee's growth, both personally and professionally.	
f. Disciplinarian , addressing performance problems or difficult employees.	
g. Performance monitor , known for observing and assessing performance.	
h. Expert , providing specialized knowledge or experience as needed.	
i. What other roles do you serve, if any?	

APPENDIX H
DESCRIPTION OF RECRUITMENT SOURCES

Description of Recruitment Sources

Community/Group	Description	Membership
Coaches		
Coach2Coach	Listserv - Coach2Coach@yahoogroups.com The Coach to Coach Network is just for professional personal and business coaches.	274
ICF: Cleveland Coach Federation	Listserv - ICFClevelandChapter@yahoogroups.com Cleveland Coach Federation is the Cleveland-based affiliate chapter of the International Coach Federation, and an affiliate chapter of Coachville. We welcome all professionals who are engaged in coaching on either a part-time or full-time basis, whether you operate independently or within a corporation, whether you are an experienced coach looking to network or a new coach looking to learn. Our diverse membership includes executive coaches, personal coaches, youth coaches, and coaches who specialize in specific niches, such as real estate, career, relationships, marital, life balance, marketing, management, and personal effectiveness.	261
ICF: Greater Indiana Chapter	Listserv - GreaterIndianalCFChapterNews@yahoogroups.com Members of the Indianapolis Chapter of the International Coach Federation	185
ICF: New Jersey Chapter	Listserv - njpca-members@yahoogroups.com The New Jersey Professional Coaches Association is a non-profit professional organization supporting professional personal and business coaches in New Jersey. We are also the NJ chapter of the International Coach Federation	605
ICF: St. Louis Chapter	Listserv - ICF_StLouis@yahoogroups.com This list is sponsored by the St. Louis Chapter of the International Coach Federation for Professional Coaches	161
Ken Blanchard Companies	Consulting company employing independent professional coaches	75
My eCoach	Online community http://my-ecoach.com/ K-12	100
NewCoachConnection	Listserv - newcoachconnection@yahoogroups.com The New Coach Connection is a virtual community comprised of new and experienced coaches who are seeking ways to collaborate, connect, and create awesome experiences in the coaching profession. This community is a group of many different coaches. We are a safe place to belong regardless of your race, religious preference, economic status or which coaching school you have attended - or not. Our coaches are life coaches, executive coaches, business coaches, financial coaches, and even clown coaches! If you are a coach, you belong here.	653
Rochester Coaches	Listserv - RochesterCoaches@yahoogroups.com An informational list for people in the Rochester NY area who are interested in personal, business and/or corporate coaching but are not members of the International Coach Federation (ICF) Rochester chapter. This list is for people who want to be kept informed of coaching-related activities in the community but are not ready to join the ICF. It is informative only, not interactive. List owner is Anne Kaplan who may be reached at sunflower_coach@earthlink.net .	104
CTI (Coaching & Training Ideas)	Listserv - Training-Ideas@yahoogroups.com	6144

	CTI (Coaching & Training Ideas) is a community whose purpose is to bring professionals within the coaching and training fields together to share information and best practices with one another for the benefit of those we work with, our own professional development, and the improvement of our fields.	
Euro Coach	Europe's Online Community for Professional Coaches http://www.eurocoachlist.com A community of and for professional coaches The Euro Coach List is about getting things done, and getting results, through working together. List members get easy access to the support needed to work well as a professional coach. The UK Coach List (now called "Euro Coach List") was started in 1997 by Mark Forster with the aim of supporting the growing community of UK Coaches.	439
WLPs		
ISPI 2007 conference blog page	Posted announcement only, no e-mail sent Founded in 1962, the International Society for Performance Improvement (ISPI) is the leading international association dedicated to improving productivity and performance in the workplace. ISPI represents more than 10,000 international and chapter members throughout the United States, Canada, and 40 other countries.	10,000+
SDSU EdTech	Listserv - edtec@yahoogroups.com Current or former students from the EdTec program at San Diego State University.	88
TRDEV - The Training and Development Discussion Group,	Listserv - trdev@yahoogroups.com TRDEV, the Training and Development Discussion Group, is a place for people to discuss training and development issues in a professional, non-commercial, collegial forum--topics related to training, learning, and performance, from the specific to the general. Some discussions involve instruments, interventions, and products for which there is no evidence of reliability, validity, or efficacy.	4308
DEOS-L - The Distance Education Online Symposium	Listserv - DEOS-L@lists.psu.edu DEOS-L is a service provided to the Distance Education community by the Adult Education Program, College of Education, The Pennsylvania State University.	2203
eModerators	Listserv - eModerators@yahoogroups.com The scope of discussion for the eModerators@yahoogroups.com mailing list includes using online (web-based or otherwise computer-mediated) discussion lists and forums for professional development, scholarly discussion, educational and non-educational discussion. Essentially, the discussion on this list includes any legitimate role or function of facilitators or moderators of online discussion.	713
HRNET	International list server dedicated to the exchange of ideas between Human Resource professionals.	1330
Online Facilitation	Listserv - onlinefacilitation@yahoogroups.com The onlinefacilitation listserv is for discussion about the skills, techniques and issues around online facilitation in a variety of Internet online environments and virtual communities.	1507
The eLearning Guild	http://www.elearningguild.com Community of Practice for Designers Developers and Managers of eLearning!	22,000+

APPENDIX I
E-MAIL CALL FOR PARTICIPATION
TO LISTSERVS

E-mail Call for Participation to Listservs

Mapping the Terrain of E-Coaching in Organizations:

A study of how e-coaching is being used in organizations, including features, practices, and factors that may influence its use
<http://www-rohan.sdsu.edu/~rfrazeecoaching/>

By Rebecca Vaughan Frazee

Doctoral Candidate in Educational Technology, USD/SDSU

Dear colleagues,

Please help a colleague/doctoral student in a study of e-coaching in organizations and help yourself to valuable data, plus a chance to win a video iPod!

What do we really know about e-coaching? Who is doing it and why? What forms does it take? What are the challenges and factors for success?

I'm defining e-coaching as coaching that is provided partially or entirely at a distance, using phone, e-mail, or other computer-mediated communications, and in combination with face-to-face coaching.

Please visit my website right away to learn more about the study, participate in the survey, share your e-coaching stories, or be interviewed. Complete the survey by April 10th and you will be entered into a drawing to win one of two 30Gig video iPods. Click here to learn more <http://rohan.sdsu.edu/~rfrazeecoaching/>.

As my way of thanking you for participating, I will provide you with immediate access to results from select survey items as the data comes in, plus a final report summarizing key findings from the survey and interviews with over a dozen e-coaches.

Thank you for your time and interest!

Please forward this announcement to anyone you think would be appropriate for this study!

Warm regards,

--Rebecca

E-coaching in organizations: A study of features, practices, and determinants of use
<http://www-rohan.sdsu.edu/~rfrazeecoaching/>

By Rebecca Vaughan Frazee

Doctoral Student in Educational Technology

San Diego State University / University of San Diego

Dr. Allison Rossett, dissertation advisor

E-mail Rebecca at rebeccafrzee@cox.net

APPENDIX J**RAW DATA**

Raw Data

Age and Years Experience by Gender and WLP Role

	Gender (by age*, by years*)		WLP Role (by age*, by years*)		
	Male (N=93) (% of group)	Female (N=94) (% of group)	Internal (N=113) (% of group)	External (N=74) (% of group)	Percentage of Total (N=191, 4 missing)
Age					
34 and Under	24%	12%	24%	8%	17%
35-44	31%	29%	29%	31%	29%
45-54	27%	44%	36%	34%	35%
55+	18%	16%	11%	27%	17%
Years Experience	14.28 (9.93)	11.40 (7.12)	11.62 (8.45)	14.69 (8.89)	12.83 (8.73)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Interviewee Demographics

	Total N = 20
Internal Coaches	11 (55%)
• Internal corporate coaches	5
• Franchise corporate coaches	2
• Higher education	3
• Military	1
External Coaches	9 (45%)
• Part of a coaching consulting group	4
• Independent coach/consultants	2
• Online coaching program facilitator	1
• Higher education	1
• E-learning company	1

Amount of Coaching by E-coaching Level

	Levels of E-Coaching Usage			Total Percentage (N=191)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
(% of level)				
A lot of coaching is happening (75% or more employees are engaged in coaching) *	21%	41%	35%	28%
Some coaching is happening	50%	36%	41%	45%
A little coaching is happening (fewer than 15% of employees are engaged in coaching)	29%	23%	24%	27%

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Coaching Priority by E-coaching Level

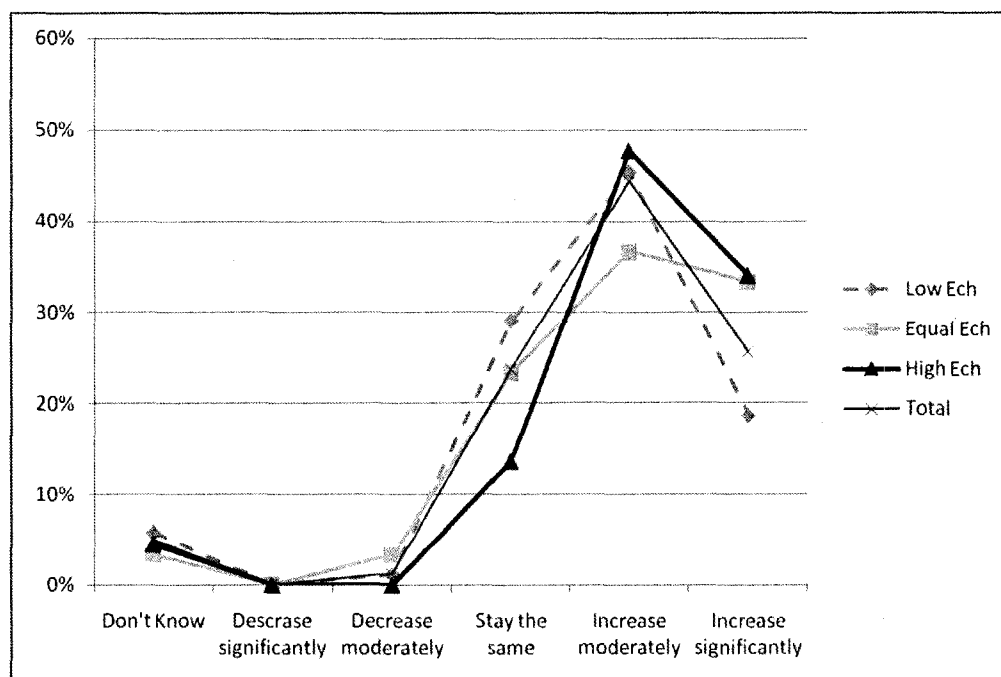
	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
Priority	Mean 3.28 (1.06)	Mean 3.59 (1.16)	Mean 3.51 (1.19)	Mean 3.40 (1.12)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Perceived Success of Coaching by E-Coaching Level

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (missing=4) (20%)	High ECh n=49 (26%)	
How would you rate the success of the coaching that's been happening in the last 18 months? +	Mean 2.93 (0.84)	Mean 3.23 (0.81)	Mean 3.57 (0.98)	Mean 3.16 (0.91)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001



How E-Coaching Use Will Increase in the Future (N=160)

How Much E-Coaching Will Change In The Near Future by E-coaching Level

	Levels of E-Coaching Usage			Total
	Low ECh	Equal ECh	High ECh	
	(54%)	(19%)	(28%)	(100%)
	N=81	N=29	N=42	N=152
	Mean	Mean	Mean	Mean
Over the next 18 months the use of e-coaching in the organization will (increase or decrease?) *	3.86 (0.74)	4.03 (0.87)	4.21 (0.68)	3.99 (0.76)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Coaching Topics by E-Coaching Level (Sorted by High ECh Means Descending)

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
Leadership skills	3.16	3.33	3.57	3.30
Management skills	3.21	3.15	3.55	3.29
Coaching or mentoring skills	2.97	3.28	3.35	3.13
Adapting to organizational change	2.87	2.97	3.06	2.94
Teamwork skills	3.03	3.21	3.06	3.07
Teaching or facilitation skills	3.10	3.36	3.02	3.13
Balancing career, personal life, stress**	2.33	3.00	2.88	2.61
Sales skills	2.42	2.72	2.59	2.52
Consulting skills**	1.97	2.62	2.57	2.26
Cross-cultural or global sensitivity	2.17	2.33	2.53	2.30

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Audiences for Coaching By E-Coaching Level (Sorted by High ECh Means)

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
Executives, 'C' levels, VP's or equivalent	2.67	2.69	3.14	2.80
1st line supervisors or equivalent	2.96	3.23	3.00	3.03
Senior or mid-level managers or equivalent	2.80	2.95	2.96	2.87
Women***	2.29	3.03	2.88	2.59
New hires**	3.34	3.26	2.53	3.12
Line employees or equivalent*	3.18	3.31	2.53	3.04
Intact work teams	2.47	2.62	2.43	2.49
Ethnic minorities	2.24	2.69	2.29	2.35
Expatriates working overseas*	1.39	1.85	1.86	1.60

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Blended Elements Used with Coaching by E-coaching Level (Sorted by High ECh Means)

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
Online references, resources, or learning materials***	3.02	3.62	3.71	3.32
Asynchronous e-learning modules (web-based learning)***	2.65	3.59	3.16	2.97
Communities of practice for discussion and collaboration among employees who are being coached on similar issues.*	2.53	3.00	3.10	2.77
Performance management assessments, testing, inventories	2.69	2.97	2.92	2.81
Face-to-face classroom instruction+	3.62	3.87	2.65	3.42
Synchronous web-based instruction or 'live elearning'+ (F=8.65, p<.001)	2.69	3.13	2.51	2.73
Knowledge/content/learning management systems	2.06	3.05	2.51	2.38
Electronic performance support system software (e.g., embedded help, expert or 'smart' systems, etc.)	1.95	2.36	2.24	2.11

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

E-Coaching Technologies Standardized Composite Scores by E-Coaching Level

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (missing=4) (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
BREADTH*** (F=11.12, p<.00)	2.34	2.85	2.74	2.54
Synch** (/5 items) (F=6.62, p<.01)	2.27	2.83	2.54	2.44
Asynch** (/2 items) (F=7.72, p<.01)	2.93	3.37	3.49	3.16
Resources* (/3 items) (F=3.97, p<.05)	2.45	2.85	2.77	2.61
Support tools*** (/2 items) (F=9.03)	1.78	2.39	2.44	2.07

*=p<.05, **=p<.01, ***=p<.00

Coaching Sources by E-Coaching Level (Sorted by High ECh Means)

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
An internal instructor or facilitator	3.40	3.51	3.29	3.39
An internal subject matter expert	3.31	3.31	3.16	3.27
An employee's direct supervisor/manager (trend)	3.70	3.46	3.12	3.50
An external instructor or facilitator*	2.32	2.69	3.04	2.58
An external subject matter expert***	2.18	2.44	2.98	2.44
Employees use resources to 'self coach'	2.90	2.92	2.94	2.92
An employee's peer	3.03	3.18	2.80	3.00
Two or more coaches for one employee*	1.62	1.82	2.20	1.81

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Coach's Role by E-Coaching Level (Sorted by High ECh Means Descending)

	Levels of E-Coaching Usage			Total (100%] N=160
	Low ECh (54%) N=86	Equal ECh (19%) N=30	High ECh (28%) N=44	
	Mean	Mean	Mean	Mean
Motivator who provides support and encouragement.	4.02	4.40	4.32	4.18
Integrator who connects to useful people, tools, resources.	3.79	3.90	4.14	3.91
Trainer who presents new information, models, asks questions, prompts behavior, and provides feedback.	3.74	3.97	3.98	3.85
Learning consultant who recommends development paths and helps employees assess development needs and prioritize efforts.	3.33	3.73	3.80	3.53
Expert who provides answers, specialized knowledge or experience	3.38	3.57	3.64	3.49
Counselor who guides personal and professional growth.*	2.92	3.53	3.43	3.18
Performance monitor who observes and assesses performance and progress.	2.86	3.30	2.84	2.94
Disciplinarian who addresses problem employees or performance. (trend)	2.37	2.63	1.93	2.30

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Coaching Used Formally or Ad hoc by E-coaching Level

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
Coaching is ad hoc and informal, part of day-to-day activities, not part of a coaching program or initiative.*	3.46 (1.32)	3.21 (1.58)	2.82 (1.51)	3.24 (1.44)
Coaching is formal or planned, part of an explicit coaching program or initiative.***	2.89 (1.35)	3.31 (1.49)	3.80 (1.34)	3.21 (1.42)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

How Coaching is Positioned in the Blend by E-Coaching Level (Chi-Square)

	Levels of E-Coaching Level			
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	Total n=191
Coaching is stand alone, not integrated*	27%	8%	20%	21%
Coaching is just one option in the blend.	58%	67%	53%	59%
Coaching is the centerpiece of the blend	15%	8%	27%	21%

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

E-Coaching Used As An Alternative or Something New by E-Coaching Level

	Levels of E-Coaching Usage			Total n=191 (100%)
	Low ECh n=103 (54%)	Equal ECh n=39 (20%)	High ECh n=49 (26%)	
	Mean	Mean	Mean	Mean
E-coaching is used as an alternative way to deliver coaching that would have otherwise been done face-to-face.+	2.44 (1.34)	3.64 (1.48)	3.82 (1.47)	3.04 (1.54)
E-coaching is used to do different things that may have never been done with face-to-face coaching.+	2.10 (1.23)	3.13 (1.38)	3.33 (1.42)	2.62 (1.43)
There is a clear distinction between face-to-face and e-coaching programs or services.	2.50 (1.41)	2.95 (1.57)	3.00 (1.50)	2.72 (1.48)

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

How Coaching Is Evaluated by E-Coaching Level (Sorted by High ECh)

	Levels of E-Coaching Usage			Total N=59 (100%)
	Low ECh N=27 (46%)	Equal ECh N=10 (17%)	High ECh N=22 (37%)	
	Mean	Mean	Mean	Mean
What is evaluated				
Those employees being coached have a positive experience. (Level 1)	4.63 (0.56)	4.40 (0.84)	4.82 (0.50)	4.66 (0.60)
Performance improves. (Level 3)	4.48 (0.85)	4.70 (0.67)	4.45 (1.01)	4.51 (0.88)
There is a positive impact on organizational results (e.g., increased sales, safety, customer satisfaction, etc.). (Level 4)	4.19 (1.14)	4.30 (1.34)	4.41 (1.30)	4.29 (1.22)
New skills or knowledge are acquired. (Level 2)	4.37 (0.84)	4.60 (0.52)	4.36 (1.00)	4.41 (0.85)
Coaches have a positive coaching experience. (Level 1)	4.22 (1.09)	3.60 (1.51)	4.14 (1.28)	4.08 (1.24)
When evaluation occurs				
During: Data is gathered during the process.	3.56 (1.34)	3.90 (1.52)	3.68 (1.59)	3.66 (1.45)
After: Data is gathered within 3 months after the coaching engagement has concluded.	4.00 (1.39)	3.70 (1.34)	3.59 (1.65)	3.80 (1.47)
Before: Baseline/benchmarking data is gathered before coaching begins.	3.07 (1.64)	3.60 (1.71)	3.41 (1.62)	3.29 (1.63)
Well after: Data is gathered 4 months or more after the coaching engagement has concluded.	2.00 (1.30)	2.30 (1.16)	2.41 (1.59)	2.20 (1.39)
*= $p < .05$, **= $p < .01$, ***= $p < .005$, += $p < .001$				

An employee's direct supervisor/manager	-.38***			-.15*				
Two or more coaches for one employee	.23***		.12*					
An internal instructor or facilitator								.14*
Employees use resources to 'self coach'				.29***				
An external subject matter expert				.17*				
An external instructor or facilitator					.27**	.22***		
An employee's peer					.26***			
An internal subject matter expert						.24**		
Coach Role								
Motivator who provides support and encouragement.		-.28**						-.28*
Integrator who connects to useful people, tools, resources.						.26*		
Expert who provides answers, specialized knowledge or experience as needed.								-.19**
Purposes for coaching								
Increase cross-functional capabilities.	-.34***							
Improve the application of skills learned in training.		.13*						
As a perk or luxury available only for certain employees.						.23*		
Add a human component to virtual courses or communications.		.14**						
To reduce time in courses or classes.			.16**					
Accelerate individuals' time-to-competency.								.18*
Reasons for e-coaching								
To make the coaching	.28***							

experience more private or confidential.								
To serve geographically dispersed employees.							.16**	
Our people are asking for e-coaching.					.15*			.19**
To address issues of scheduling or limited availability for development activities.		.23***	.15*	.19**				
Others are doing e-coaching and we want to keep up.			.27***					
To provide just-in-time answers for immediate needs.							.34***	
To lessen disruption in the workplace.							.26***	
How is Coaching Blended								
Coaching is just one option in the blend.			-.52**					
There is a clear distinction between face-to-face and e-coaching programs or services.						.23**		
What is evaluated								
There is a positive impact on organizational results (e.g., increased sales, safety, customer satisfaction, etc.).	.20**							
Coaches have a positive coaching experience.				.18*				
When evaluation occurs								
During: Data is gathered during the process.		.15***						
After: Data is gathered within 3 months after the coaching engagement has concluded.	-.28***						-.11*	

Organization Factors Regression

Adjusted R Square and Estimated Coefficients for Organization Factors Predicting E-Coaching Use and Perceived Success

	Level	Breadth	Sync	Async	Res	Supp	Efficacy	Future
ARS	0.3	0.52	0.3	0.32	0.34	0.47	0.14	0.15
F value	10.60***	25.82***	23.72***	15.72***	17.32***	24.51***	5.99***	14.38***
(Constant)	1.44***	0.86***	1.08***	2.0***	.69**		3.10***	2.96***
ORGANIZATIONAL ENVIRONMENT								
A culture supportive of those who rely on coaches.		.07*	.14**					
A communication campaign about the what, why, and how of coaching programs.						.23***		
A system for matching coaches with prot.g,s/coachees.							-.09*	
A system to assess whether someone is ready to receive coaching.					.11**			
Training and support on how to use available computer technologies.	.14*	.10***	.12**	.13**			.11**	.12**
PRIORITY								.20***
COACHING SUCCESS	0.34***				0.16*			
BLENDED ELEMENTS								
Asynchronous e-learning modules (web-based learning)					.15***			
Synchronous web-based instruction or 'live elearning'	0.16**	.14***	.23***	.13**		.17***		
Face-to-face classroom instruction	-0.24***							
Communities of practice for discussion and collaboration among employees who are being coached on similar issues.		.10***			.11**	.16***		
Electronic performance support system software (e.g., embedded help, expert or 'smart' systems, etc.)				.17***		.14*		
Knowledge/content/learning management systems	-.18**	.10**				.15**		
Online references, resources, or learning materials	0.2**	0.07*			0.12*			
ORG SIZE								
1-20 emps		.19*					.94***	

21-500 emps							.35*
501-2000 emps							-.46*
ORG HQ Asia, India, Aus, NZ	.62*						
ORG TYPE							
Org Type Univ or K12							.93***
Org Type Indep Consulting							-.65**

Model A: Eight Factor Model Predicting E-Coaching Use and Success

Predicting Outcome Variable	R	R Square	Adjusted R Square	Std. Error	F	p
E-coaching Level	.64	.41	.39	.86	14.38	.00
E-coaching Breadth	.69	.48	.45	.50	18.70	.00
Synch (/5 items)	.53	.28	.24	.73	7.82	.00
Asynch (/2 items)	.51	.26	.22	.81	6.99	.00
Resources (/3 items)	.53	.28	.24	.77	7.78	.00
Support tools+ (/2 items)	.65	.42	.39	.81	14.7	.00
E-coaching Success (BENPOT+BENADV+BENface-to-face_R)	.37	.13	.08	2.21	2.69	.01
E-coaching Future	.28	.08	.03	.76	1.44	.19

Predictors: (Constant), TRDEVorg, JobCh, JobILT, Size1-20, TechRichEnv, Accustomed, AudLine, AudExpat

Estimated Coefficients and Percentage Change for the Variables in the Final Regression Models (Only Statistically Significant Estimated Coefficients Shown)

Independent Variables	Dependent Variables (% change)										
	Level	Breadth	Sync	Asyn c	Res	Supp	EFF	FUT	POT	ADV	face-to-face
Constant	2.051 +	1.036 +	1.213	1.866	1.089 ***		3.37+	3.399 +			2.980 +
Trng & Dev Focus versus Coaching Focus	-.394+ (8%)										
Serving as a coach	.189* ** (4%)										-.034* **
Delivering or facilitating face-to-face instruction	-.244+ (5%)					.134*					-.240* **
1-20 emps	.546* **						.48** *				

	(11%)									
TechRichEnv = BLASYN+ BLSYN+ BLEPSS+ BLKM+ BLREF	.040* * (1%)	.079+ (2%)	.060+	.088+	.082+	.115+				
Our people are accustomed to working virtually, and e-coaching is a natural fit.	.191+ (4%)	.079* * (2%)	.110* *			.099*	.106*			
Line employees or equivalent	- .103* (2%)				.091*					
Expatriates working overseas	.120* (2%)	.074* (2%)	.132* *			.157* *				

*=p<.05, **=p<.01, ***=p<.005, +=p<.001

Independent Variables: Abbreviations and Descriptives

Factor	Variable	Variable Abbreviation	Range	Mean (N)
Individual Factors				
	Training & Development Focus versus Coaching Focus (based on professional organization affiliation) (n=172)	TRDEVOrg	0/1	---
	Part of my job: Serving as a coach (n=191)	JobCh	1-5	3.64
	Part of my job: Delivering or facilitating face-to-face instruction (n=191)	JobILT	1-5	3.44
Organization Factors				
	1-20 employees (n=191)	Size1-20	0/1	---
	Technology-rich environment (n=191)= (Asynchronous e-learning modules + Synchronous web-based instruction + EPSS + KM systems + Online resources)/5	TechRichEnv	1 - 5	2.70
	Our people are accustomed to working virtually, and e-coaching is a natural fit. (n=187)	Accustomed	1 - 5	2.79
Innovation Factors				
	Line employees or equivalent (n=191)	AudLine	1 - 5	3.04
	Expatriates working overseas(n=191)	AudExpat	1 - 5	1.60

Correlations Among Dependent Variables

	level N=191	Brea dt N=1 87	syn N=1 87	asyn N=1 87	res N=1 87	supp N=1 87	pot N=1 60	adv N=1 60	F2f N=1 60	fut N=1 52
1E-coaching LEVEL = Ecoach_R										
5 Breadth ECoaching	.315**									
6INDEX Synch Tech for Coaching	.202**	.835 **								
7INDEX Asych Tech for Coaching	.295**	.662 **	.377 **							
8INDEX Tech Resources for Coaching	.213**	.767 **	.446 **	.447 **						
9INDEX Tech Support Tools for Coaching	.294**	.671 **	.351 **	.386 **	.449 **					
10a) E-coaching is a great concept with lots of potential.	.272**	.262 **	.212 **	.255 **	.210 **	.089				
11b) Coaches who do e- coaching have an advantage over coaches who only offer face-to- face coaching.	.131	.184 *	.103	.123	.161 *	.188 *	.427 **			
12Reversed: Benefit of face-to-face	.378**	.046	.009	.118	-. 004	.059	.244 **	.153		
13Future of E- Coachin_5pt scale	.223**	.379 **	.347 **	.160 *	.316 **	.219 **	.424 **	.127	.157	
14E-Coaching Efficacy = BENPOT+BENADV+BE Nface-to-face_R	.364**	.210 **	.131	.215 **	.154	.160 *	.696 **	.747 **	.698 **	.296 **

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

* Correlation is significant at the 0.05 level (2-tailed).