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## Mentors, Mentor Substitutes, or Virtual Mentors? Alternative Mentoring Approaches for the Military

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**ABSTRACT**

This report provides an overview of mentoring: the career enhancing and psychosocial functions, the stages of development in the mentoring relationship, and a selective review of the research literature. We argue that the traditional mentoring relationship is difficult to establish and maintain in a military environment for a number of reasons including the rank structure and job environment. Therefore, a number of mentoring alternatives are presented: peer mentors, team mentoring, mentor circles, networking, specialty leaders, retirees, and virtual mentors. Several suggestions for implementing these alternatives in the military follow.

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**Opinions expressed in this report are those of the author and should not be construed to represent the official position of DEOMI, the military Services, or the Department of Defense**

## MENTORS, MENTOR SUBSTITUTES, OR VIRTUAL MENTORS? ALTERNATIVE MENTORING APPROACHES FOR THE MILITARY

Mentor was an old friend of Odysseus, to whom the king had entrusted his own household when he sailed, with orders...to keep everything safe and sound.

Athena...assuming the form and voice of Mentor, addressed him with winged words. "Telemachus, you will be neither a coward nor fool in the future...you can hope to succeed in this undertaking...for am I not your father's friend, and ready to find you a fast ship and sail with you myself? I myself will pick out the best for you."

Homer, *The Odyssey*, Book 2, Lines 226-296

In Homer's *The Odyssey*, when Odysseus left his kingdom of Ithaca for the legendary war with Troy, he consigned his son and heir, Telemachus, to the wise and experienced care of his friend and colleague, Mentor. In the ensuing 20 years of Odysseus' absence, Mentor oversaw Telemachus' training in the arts of war and kingship and supported him against opposing countrymen in the governing assembly.

In addition, the warrior goddess, Athena (also the goddess of wisdom and the arts), appeared to Telemachus many times in the form of Mentor to offer guidance, encouragement, and resources. When Odysseus returned at the end of 20 years to find his loyal wife, Penelope, surrounded by hostile suitors who were consuming his wealth, he was able to defeat these interlopers and regain his kingdom with the capable assistance of Telemachus, who had been well tutored by Mentor and his substitute persona, Athena.

From this Greek epic, several parallels for today's mentor can be borrowed -- the more senior "father" figure developing a younger colleague (e.g., protégé or mentee) in career and life skills within an atmosphere of friendship and trust. Moreover, there is a substitute mentor stepping in to help on occasion. Indeed, the most unique guidance and strongest encouragement came from this substitute. Interestingly, there is also a powerful mentoring role for a female figure. Eventually, the protégé is expected to go to great lengths in order to honor the work and friendship of the mentor. The authors revisit these metaphors several times again.

In this report the authors will first address the concept of mentoring -- definitions; functions; advantages for the protégé, mentor, and organization; stages of the mentoring relationship; research on mentoring; and the unique situation of military mentoring. We argue for several reasons that mentoring is difficult in the military. Therefore, several alternatives to traditional mentoring are examined. Finally, recommendations are discussed for implementing these mentoring alternatives in the military environment.

## The Concept of Mentoring

Today, the mentor is seen in relation to the protégé from several perspectives. One type of definition focuses upon traits and behaviors of the mentor: "an individual with advanced experience and knowledge committed to providing upward mobility, and support to protégés" (Ragins, 1997, p. 484). Another type of definition emphasizes the mentor-protégé relationship: "developmental relationship between an individual and a more senior, influential professional or manager" (Dreher & Cox, 1996, p. 298). A third looks at the benefits: "provides protégés with the opportunity to develop skills, gain access to developmental opportunities, build the confidence necessary to tackle challenging tasks, and obtain guidance and counseling" (Eby, 1997, p. 126).

In essence, the mentor provides two basic functions for the protégé: instrumental and psychosocial (Kram & Isabella, 1985). In the instrumental or career enhancing function, the modern mentor, like Telemachus' Mentor, provides sponsorship of the protégé in the organization, thus legitimizing him or her to the established powers in the organization. The mentor also provides coaching on job-related skills and feedback on job performance. The mentor makes the protégé visible to important personnel and protects him or her from powerful individuals in the organization. The mentor recommends challenging work assignments and unique training and development that broaden and deepen job skills. Moreover, the mentor assists the protégé linking into career networks.

In the psychosocial function, the mentor provides the protégé counseling to improve interpersonal skills and to enhance their perceptions of their colleague's thoughts and feelings. Mentors serve as a role model for the correct behavior to exhibit in the organization. In addition, like the original Mentor, the modern mentor is a friend to the protégé. All of these activities require a cost in the form of substantial time and effort spent by both the mentor and protégé in maintaining the relationship. These costs are balanced by numerous benefits to the protégé, to the mentor, and to the organization.

### Various Advantages

Protégé. The protégé or mentee experiences better job satisfaction, encounters better opportunities for advancement, enjoys a higher income than nonmentored individuals (Dreher & Ash, 1990), and reports more career satisfaction (Turban & Dougherty, 1994). For example, mentored persons possessing a Masters of Business Administration (MBA) averaged over \$22,000 more in annual salary than nonmentored MBAs (Dreher & Cox, 1996). In addition, mentoring empowers the protégé to use his or her skills and knowledge more effectively and efficiently (Gunn, 1995).

Mentor. The mentor takes a risk in terms of time diverted away from his or her own career and even the possibility of a political flare-up from rivals when entering a mentoring

relationship. However, this risk is balanced by a number of advantages to the mentor. He or she receives personal satisfaction from helping junior people advance. They may feel that they have repaid a personal debt to their own mentor by continuing the tradition. Moreover, they may feel that they have provided continuity in the organizational hierarchy by sponsoring their own successor (Ragins & Cotton, 1993; Ragins & Scandura, 1993).

The Organization. There are a number of advantages to the organization. A mentored workforce is more skilled, more connected with one another, and more savvy about organizational politics. There is less turnover of valuable junior people. In downsizing, the remaining mentored employees have skill depth and flexibility (Gunn, 1995).

Mentoring grooms future organizational leaders (Jossi, 1997). There is a smooth transition from senior to junior people of corporate memory, unwritten policies, psychological contracts, organizational myths and stories, and connectivity to resources and the outside environment. Finally, from a cost viewpoint, formal or informal mentoring results in highly individualized training and is a relatively inexpensive means of employee development compared to formal workshops and seminars (Jossi, 1997).

### Stages of the Mentoring Relationship

Mentoring is a long-term relationship that evolves through several stages (Kram, 1983). This can be a shortcoming with respect to the system of frequent job rotations in a military career.

Initiating. In embarking on the mentoring path, there must be a friendship, like the one between Mentor and Odysseus' family, or some other close "chemistry" between the mentor and protégé. From social psychological research, it is known that friendships typically arise between individuals who share many common characteristics (e.g., same gender and race) and similar psychological traits (e.g., attitudes and values) (Aronson, 1995). Thus, white males may find it easier to find possible mentors among senior managers and professionals, who are predominantly white males, than do women and minorities, who are at a disadvantage (Ragins, 1997). In short, the mentoring needs of women and minorities are less likely to be met.

The organizational leadership can encourage opportunities for such "chemistry" to develop. It can help the mentoring process either through establishing formal programs that structure the process or informal programs that provide opportunities for the chemistry to develop. Such opportunities can arise through informal discussions among junior and senior people, junior and senior people working together on teams, working on special projects, and junior presentations to seniors. In these situations, senior people can see how potential protégés present themselves, deal with interpersonal relations, and solve problems.

Mentoring. An effective mentoring relationship develops over two to five years. Because it focuses on career cultivation, the instrumental or career enhancing function usually develops first. As the mentor-protégé friendship deepens, the psychosocial function then develops.

Disengagement and Separation. The protégé cannot stay in this position throughout his or her career. At some stage protégés must disengage from the mentoring relationship and strike out on their own. This is much like emancipation of a teenager from the parental nest, when he or she goes to college or enlists in the military or takes a first real job. There can be much emotional turmoil at letting go. Indeed, the protégé may return to the mentor during times of stress and crisis.

At times the mentor does not want to let go. Mentors may have defined their careers and even self-identities in the mentoring relationship. Terminating that relationship may be very difficult (Ragins & Scandura, 1997).

Redefinition of Roles. Finally, the protégé is on his or her own. Eventually the old mentor withdraws from power or retires, and the former protégé now becomes a mentor to a new generation of potential rising stars.

### Research on Mentoring in the Civilian Sector

Because of its importance to the organization, mentoring has generated a fair amount of research. Our purpose is not to present an exhaustive review of the literature, but rather show a sampling of mentor programs and approaches in several important areas.

#### Formal Mentoring Programs

Given the many benefits compared to low costs of mentoring, it is logical that many organizations would try to mandate mentoring through formal programs. Indeed, some recommend that formal mentoring programs are a requirement for equal opportunity for all employees (Reid, 1994). There are many suggestions for an effective formal program: link mentoring with the performance evaluation and compensation systems, build mentoring into position succession planning, and be inclusive instead of exclusive in identifying protégés (Kram & Hall, 1996).

Two of the most visible formal programs are at DuPont and General Electric (GE). At DuPont, the mentoring program emphasizes sharing intellectual capital. There are about 7,000 employees in the program, served by a group of voluntary mentors. The major goal was carefully defined as improving business results rather than developing individuals. Mentors, who are managers outside of the individuals' departments, meet with their protégés once a month to

discuss work issues (Jossi, 1997). DuPont's success appears to emphasize mentoring as one of many tools to improve its business.

GE also has a formal program. There is a buddy system for new employees paired with more senior employees. Originally the program focused on women and minorities, but a backlash convinced GE to make the program inclusive of everyone. Its unique feature is that focus groups are conducted to evaluate and continually improve the mentoring program (Gunn, 1995). One problem with mentoring that is evident in the 1990s is downsizing. For example, the Internal Revenue Service (IRS) had a fairly successful mentoring program until downsizing forced out many of the mentors (Gunn, 1995).

### Mentoring for Women and Minorities

It has been noted above that women and minorities may be at a disadvantage since there are relatively few women and minorities at the top in organizations who can serve as mentors, and many of those there are involved with their own career development. Further, these groups may have difficulty building the crucial "chemistry" with older experienced white males at the top required for effective mentoring to develop (Ragins, 1997).

In addition, women and minorities as potential protégés may have special issues to overcome that require additional mentoring effort, such as stereotyping of performance potential, perceived incompetence (e.g., the belief that they were hired only for Affirmative Action reasons), glaring visibility as a numerical minority in the organization (with concomitant performance pressure), and identity problems (woman or minority versus employee) (Ragins, 1989, 1997).

The research, unfortunately, is not favorable for strong mentoring relationships for women and minorities. Indeed, white men and socioeconomically advantaged people are more apt to be mentored than other groups. Further, more senior white males may be assigned women and minorities as protégés as much to help the white males learn how to coach differing types of people as to help their protégés (Kram & Hall, 1996).

Because there are more men at high levels of organizations and therefore more potential male mentors than female, often a woman who desires a mentoring relationship must acquire a mentor of the opposite sex. Researchers have, however, suggested that women encounter many barriers to establishing cross-gender relationships. Women may be less likely than men to initiate mentoring relationships and others in an organization may perceive such relationships sexual rather than professional in nature. In addition, men considering such relationships may have a fear of being accused of sexual harassment or improper conduct. Women on the other hand, who are offered mentoring may wonder what male mentors expect in return (Collins, 1983).

Interpersonal power is an important variable in the effectiveness of the cross-gender mentoring relationship. The most effective mentors are experienced, capable, and powerful; usually older white males (Ragins, 1997). In successful cross-gender mentoring relationships, the emphasis is on career enhancement rather than the psychosocial function. Women protégés and male mentors are less likely to interact with each other outside of the work setting (Ragins & McFarlin, 1990).

The research literature shows a similar situation for women and minority networks. A network works like an extended mentoring relationship -- identifying resources for career enhancement, friendship, and social support. Networks for women and minorities tend to be smaller, with fewer strong ties, and less stable than networks for white males (Ibarra, 1993).

### Qualitative Research

Unfortunately, much of the mentoring research consists of recording anecdotes and experiences gained from mentoring relationships. One interesting and more rigorous study found that informal mentoring relationships generated more personal interaction outside the organization and at social gatherings than did formal mentoring relationships (Tepper, 1997). Thus, the informal mentoring situation again seems to be stronger and more encompassing than the formal relationship.

In general, qualitative research reveals several important factors in successful mentoring. As in the story of Mentor in *The Odyssey*, trust between protégé and mentor is crucial (Reid, 1994). Regular contact between both parties is also important (Coley, 1996). In addition, there must be realistic expectations of what the relationship will produce (Gunn, 1995; Jossi, 1997). For example, mentoring cannot guarantee advancement or high wages.

### Military Mentoring

#### Unique Needs

The military provides a unique situation for mentoring. First, there is a dual rank structure: enlisted and officer personnel. Junior non-commissioned officers (NCOs) or petty officers and junior officers could benefit from mentoring. Second, there are special groups that possess special mentoring needs. The numbers and percentage of women in the military are increasing. They face daunting circumstances, such as the degree to which women will be allowed in combat roles. The numbers of minorities are also increasing. Each minority group has unique needs. For example, Hispanics prefer to have mentors who can understand their culture and extended family orientation (Knouse, 1991, 1992). In addition, those at high risk for encountering the military justice system (both minorities and majorities) may benefit from mentoring on acceptable behaviors when they initially enter the military (Knouse, 1993).

## Research on Mentoring in the Military

Perspectives on Mentoring. Several Air Force studies addressed the perspective of the mentor and protégé on mentoring effectiveness. Lewandowski (1985) surveyed colonels and lieutenant colonels destined for Air War College (to parallel upper level business executives) and found most of them previously had mentors and were in continuing mentoring relationships. He concluded that mentoring was a major factor in their success. Gouge (1986) surveyed junior officers attending a technical school and found that these potential protégés perceived a need for mentors to act as role models, advisors, and motivators. However, they did not expect the mentor to protect or sponsor them. Lassiter and Rehm (1990) found the majority of their Air Force sample believed that an informal mentoring program was acceptable and should continue. Over half of the junior officers indicated that there should be some type of education and training about mentoring.

Formal Programs. Some military organizations have attempted formal mentoring programs but with very limited success. Relatively few individuals participate in these programs (Sullivan, 1993; Webb, Knouse, Schwerin, & Bourne, 1998).

Mentoring for Women. The availability of mentors for military women appears to vary across Service and specialty. A survey of female Army officers showed that they received less mentoring than male officers and were less positive about their career development (Ratchford, 1985). On the other hand, a survey of Navy Nurse Corps officers (mostly female) revealed that 67 percent had received mentoring in terms of role modeling, career development, and providing information (Matthews, 1988). A survey of Equal Opportunity Advisor (EOA) students at the Defense Equal Opportunity Management Institute (DEOMI) showed that a majority of all students had been mentored, although a larger percentage of males reported more mentoring relationships than females. In addition, both genders perceived male mentors as more effective than female mentors in the military (Sullivan, 1993).

Mentoring for Minorities. Similar to military women, minorities in the military report a shortage of potential mentors. In a survey of majority and minority members across the Services, minorities reported that mentoring was crucial to career progression, but they had difficulty finding mentors in senior leadership positions and mentoring was even actively discouraged in some cases (Dellums, 1994). A survey of Hispanic officers and NCOs at DEOMI revealed that none had experienced a mentoring relationship in his or her military career (Knouse, 1991). In a survey of African-American Army officers, respondents recognized a need for mentoring, but many failed to attach to a mentor early in their military careers. Moreover, many tended to seek assistance from mentor figures only during crisis situations. Those African-American officers who were able to establish successful mentoring relationships with senior white officers had either been commissioned through a predominately white university or through West Point (U.S. Military Academy). African-American officers commissioned through historically black colleges and universities had more difficulty establishing mentoring relationships with white senior

officers (Butler, 1996). In other words, similar educational experience seemed to be a factor in developing successful mentoring relationships across races.

### Unique Issues with Military Mentoring

There are several problems unique to the military situation that make mentoring particularly difficult. First, it is difficult for the chemistry to develop that begins an effective mentoring relationship. The military is perhaps the most diverse organization in the United States. Thus, perceived similarities that instigate friendships may not be readily apparent among people with diverse backgrounds. In addition, the military rank structure separates enlisted from officers and even junior enlisted from senior enlisted and junior officers from senior officers. Moreover, there are relatively few situations for seniors to see how juniors comport themselves and thus take an initial interest in embarking on a mentoring relationship (such as the special projects that are more available in the civilian sector).

Second, there are not enough senior women and minorities in either the senior enlisted or officer ranks who could serve as mentors for the relatively large number of women and minorities in the junior enlisted and officer ranks. Third, individuals tend to change assignments and locations frequently in the military, usually every two to four years. It has been noted above that an effective and productive mentoring relationship usually takes a longer time to develop. Thus, transfers may abruptly sever many potentially effective mentoring relationships.

### Alternatives to Mentoring for the Military

Similar to the civilian sector, individuals in the military need help and guidance on career enhancement and personal development. Indeed, it can be argued that equal opportunity for all in career development requires equity in mentoring (i.e., everyone has the opportunity to benefit from some type of mentoring experience; Reid, 1994). Moreover, in the present turbulent career environment, one needs mentoring help from multiple sources (Loeb, 1995) in both the civilian and military sectors.

Traditional mentoring as we have seen, however, is particularly difficult in the military. Therefore, we examine now several alternatives to mentoring. After all, Athena, the warrior goddess, was an alternative mentor for Telemachus, and she was highly effective.

### Peer Mentors

Instead of trying to find one senior person to serve all mentoring functions, individuals can identify several colleagues who can serve specific mentoring functions. There can be several types of these peer mentors (Kram & Isabella, 1985) or lateral mentors (Eby, 1997). The information peer can share career-enhancing information. The collegial peer can offer career strategizing and feedback on job performance. In addition, he or she can serve as a friend. The

special peer can provide the psychosocial functions of emotional support and feedback on personal traits.

A variation on the peer or lateral mentor is the coaching buddy (Gunn, 1995). He or she serves as a short-term mentor for new people entering the organization. Coaching buddies can help the new person get started, introduce them around, indicate where resources reside, and begin their socialization into the organization. The military already encourages sponsors for new people in many units.

### Team Mentoring

An increasing amount of work in the military is being accomplished in teams: combat teams, support teams, health care teams, quality teams, and training teams. This provides a unique opportunity for team members to provide guidance and feedback to other team members. Teams can provide technical knowledge to individuals, a sense of identity upon which to build self esteem, training in team skills (such as interpersonal interaction and problem solving), personal feedback, and a buffer from outside pressures (Eby, 1997).

### Mentor Circles

Several civilian organizations, like NYNEX, the telecommunications company, are experimenting with mentor circles. Instead of trying to pair protégés and mentors one-on-one, they link protégés to groups of mentors. Individuals may meet with a group of senior people, say once a month, to discuss job performance, career goals, and future endeavors (Kram & Hall, 1996).

### Networks

A network is a set of interlocking relationships both inside and outside an organization that can serve many of the mentoring functions (Ibarra, 1993). Military members can maintain networks with former peers in training and education environments and with colleagues from former assignments. The problem is that such networking requires time and effort. One means of minimizing the time and effort is to use computers, particularly e-mail, to communicate with a wide range of colleagues and acquaintances.

### Specialty Leaders

The Navy has a unique role in some of its corps, the specialty leader (formerly called specialty advisor). This is a senior person in a community of specialists, such as the medical corps (e.g., physicians), who is either selected by the community or appointed by senior officers for a term of three years. These specialty leaders maintain a relationship with individuals in their community to assess professional needs and skill mixes. They also may lobby unit commanders

for individuals who fit particularly well into job or training openings. They keep individuals and unit commanders apprised of career needs and developments. They provide a liaison between the individual and their detailer (e.g., job placement officer) on fitting skill mixes and personal desires.

### Retirees

Military retirees constitute a largely untapped group of potential mentors. They retain a closer tie to the military through their benefits and formal associations than do many civilian retirees. They may live physically close to military posts and bases in order to maintain these benefit and association ties. NCOs and chief petty officers may retire as early as age 37 and officers at 41. Thus, they may be young enough to relate to junior NCOs, petty officers, and officers and still maintain fairly close ties to active duty colleagues. Similar civilian programs, such as the Senior Corps of Retired Executives (SCORE), a program that matches retired managers with young entrepreneurs, have a proven record of success.

### Virtual Mentors

One of the many benefits of computers is the almost unlimited access to information and personnel resources. Through web pages on the Internet and through e-mail (e-mentoring), individuals can access information and contact colleagues instantaneously around the world. The constraints of time and synchronous communication required of face-to-face mentoring are absent. In short, it is very convenient. Further, it is highly cost effective (Muller, 1998). Moreover, the Internet can be used as a vehicle for supplying tutorials about how to mentor via computers (Bennett, 1997).

Several civilian mentoring groups are setting up Internet and e-mail access. One example is SCORE, whose web page offers conference information, business resources, and counseling by e-mail (SCORE, 1998). Another example is a national program termed "MentorNet," supported by a web page that uses e-mail to connect over 200 women students majoring in science, engineering, and math with mentors in industry and trade organizations (Haworth, 1998). Still another example is "Preparing Future Faculty," a web page where graduate students can link to over 100 university programs to see what roles and responsibilities faculty perform. In addition, students can attempt to recruit mentors through the web page, and mentors can learn how to mentor over the Internet (Guernsey, 1998). There is the Mentor Program for Women at the School of Business, Susquehanna University, linking women students with volunteer mentors from the business community (Cianni, 1998). In medicine, there is the Anesthesiology Mentor Program, which allows residents to locate anesthesiologists who can provide guidance and assistance (Anesthesiology, 1998).

There are also virtual mentor groups. In Canada, there is the Mentor Circle, where young business people can contact conference rooms, similar to Internet chat rooms, where they

leave a message and one or more mentors can leave a response (Youth in Business, 1998). The Texas Library Association has a Round Table Mentor Program, where new librarians can develop individual mentor relationships or networks over the Internet (Texas Library Association, 1998).

There are numerous opportunities, then, for individuals to develop virtual mentors through computers. These virtual mentors can handle a potentially large number of protégés. Messages can be left and answered day or night. In addition, the relationship is basically informational and not face-to-face, thus interpersonal attraction does not have to develop for traditional mentoring. Further, status differences are not apparent. This means that women and minorities can have easier access to all senior officers as virtual mentors.

### Recommendations

From these mentoring alternatives, several recommendations are made for the military.

#### **1. Strengthen sponsorship programs for new assignments**

The military currently practices sponsorship of new people in many units. Sponsoring can include help with relocation, family settling in, job tasks, and socialization into that particular unit. To borrow from the Total Quality Management (TQM) literature (Knouse, 1996), this is a "best practice" that should be copied by other units. In addition, sufficient time and resources for effective sponsoring should be allocated. Perhaps sponsoring could even be considered in performance evaluation.

#### **2. Encourage team mentoring**

In training and team development exercises, the team mentoring function (Eby, 1997) can be stressed. Team members can give each other feedback on contribution to the team and interpersonal skills. Individual training needs in these areas can also be identified.

#### **3. Experiment with open-group discussions with senior NCOs, Chief Petty Officers (CPOs), and officers**

This is a variation of the mentoring circle in the civilian sector (Kram & Hall, 1996). The emphasis here is upon experimentation to find what works with an individual unit. Some units are more hierarchical and tradition bound than others, and such open discussion may not work well. For others, junior enlisted and officers can learn from their seniors' positive experiences as well as mistakes.

#### **4. Expand the Navy specialty leader concept to other services**

The Navy specialty leader program serves naval communities well, such as the various medical corps (Webb et al., 1998). There appears to be no reason why it could not be expanded to other corps as well as other services. This liaison role can simultaneously serve the individual, the receiving commander, and the military.

#### **5. Encourage retired NCO, CPO, and officer groups to set up volunteer mentor lists**

The emphasis would be upon recently retired NCOs, CPOs, and officers, who still have extensive ties to active duty colleagues and to the state-of-the-art technology in their fields. Mentor lists could either focus on specialists for specific career information or generalists for overall career and personal development. Some examples of groups are The Retired Officer Association (TROA) and Noncommissioned Officer Association (NCOA). There are service specific groups, such as the National Naval Officers Association (NNOA), Association of Naval Service Officers (ANSO), Chief Petty Officers Association (CPOA), Air Force Association (AFA), Air Force Cadet Officer Mentoring Program (AFCOMAP), the Army's ROCKS program for minorities (an association named after Brigadier General Roscoe "Rock" Cartwright who was an esteemed role model and mentor to many black officers; Powell, 1996), Army Warrant Officers Association, and branch regimental associations in the Army. In addition, there are specialty groups, such as the Association of Military Surgeons of the United States (AMSUS).

#### **6. Publish web pages focusing on NCO and officer career issues and e-mentoring**

These career-oriented web pages could serve the mentoring career enhancing function of informational sources. Moreover, direct mentoring pages could be set up. An unlimited number of individuals could benefit from these pages and access them at any time. Messages could be left via e-mail at any time in e-mentoring (Muller, 1998).

Four examples of interest, from which the military might borrow, are SCORE, MentorNet, Preparing Future Faculty, and the Anesthesiology Mentor/Protégé Program. The SCORE home page displays information on conferences, e-mail counseling, business resources, and frequently asked questions (FAQ) (<http://www.score.org>). MentorNet for women science students displays general mentoring information, a student area with FAQ, a mentor area with FAQ, and links (<http://www.mentornet.net>). Preparing Future Faculty has links to campus programs, sample activities, FAQ, and resources (<http://www.preparing-faculty.org>). The Anesthesiology Mentor/Protégé Program gives program objectives, selection criteria, the rules of the mentor and protégé interaction, and even how to break off the relationship (<http://www.metrohealth.org/clinical/anes/mentor.asp>).

In addition, the mentor circle idea could be converted to a virtual mentor circle through conference rooms, where individuals leave questions for specific mentors or any mentor logging on. In Canada, the Mentor Circle has mentor profiles so individuals can know something about a given mentor and a slot in a conference room where questions can be left (<http://sae.ca/youth/mentors/guidelines/htm>).

#### **7. Disseminate lists of NCOs and officers who will serve as virtual mentors**

Enlisted and officer personnel who are experienced with computers and the Internet can serve as virtual mentors or e-mentors. They can present themselves through e-mail as specialty resources, information liaisons, and sounding boards for ideas or even complaints. A relatively large number of individuals could benefit from their expertise. Indeed, even the identity of these virtual mentors could be eliminated from e-mail. Thus, women and minorities could link into e-mentors as information sources with minimal problems of mentoring across gender and race.

#### Conclusions

Although mentoring can serve important career enhancing and personal development functions, the military environment makes traditional mentoring relationships difficult to maintain and even to establish. However, substitute and alternative mentoring options are available. With some creative thinking, innovation, and resource allocation, many junior enlisted and officer personnel could have the opportunity to access some variation of mentoring through peers, teams, retirees, or even their personal computer.

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