Chapter Four

POTENTIAL BENEFITS OF DL EXTEND TO OTHER AREAS

DL’s benefits are not limited to the potential uses described above. The principal advantage of distance learning—an advantage with far broader application than professional military training and education—is the ability to deliver training efficiently in a manner that can be tailored to the student’s individual needs in terms of timing, content, focus, and pace. While this feature would be beneficial in virtually any education scenario, it is even more valuable in today’s environment of rapid technological growth, frequent deployments, and other distractions of military personnel from assigned duties, as well as in an environment that requires leaders with broader knowledge and skills.

A common belief expressed in education literature is that continuous education is more valuable than education presented in packages at discrete intervals. The hypothetical ideal is one-on-one instruction presented by an expert tutor, as needed and when needed by the student. DL makes a near variant of this ideal feasible: packages a student can schedule when needed and when convenient, with content the student can pick from to focus on areas where improvement or greater familiarity is required, and with some real-time feedback. These general benefits of DL can obtain in virtually all applications.

MILITARY TRAINING BENEFITS

DL’s ability to provide training “on demand” is one of its greatest potential contributions. Trainers and educators in and out of the military services have explored and begun to exploit the potential of paper-based and compact disc (CD)-based job aids. Web-based DL
goes further, enabling training proponents to deliver training more responsively (instantaneously, for asynchronous training), update materials, and monitor their usage and usefulness. Job aids in any of these forms can be used to provide “just-in-time” skill training. In many cases, this is likely to be more useful than more formal residential training, which involves waiting for a scheduled opening and then a protracted absence from assigned duties. DL similarly makes refresher training more readily available, and this has important implications for an Army increasingly dependent on skills that can quickly become outdated because of technological developments.

The pace at which technology evolves makes it largely infeasible, if not completely impossible, to employ residential training to keep skills fully up to date in many technical specialties. In addition, military modernization and equipment procurement schedules can move so rapidly that soldiers and leaders find themselves needing to deal with a new generation of systems (or new systems altogether) every time they move from one location to the next—and frequently even before they move. While technical libraries, telephone assistance lines, and mobile training teams can help as needed to upgrade and adapt the skills of people in the field, DL can accomplish the same requirements—or a substantial portion of them—more rapidly and more efficiently.¹

The military services are all to some degree developing training-support capabilities in which the proponent for each technical skill maintains a Web-based course covering all aspects of the skill that can reasonably be taught using asynchronous techniques. This would enable “just-in-time” training for soldiers who need their skills updated, either because of a job change or because of a new item being fielded. This capability would, of course, need to be backed up by instructors available by telephone or e-mail to provide additional assistance. In those cases where hands-on training is still required, mobile teams, locally certified instructors, or supplemental residen-

¹We do not envision hotlines and mobile instructors disappearing, but DL should be able to reduce the need for these more expensive approaches. We also believe that Web-based look-up resources, because of their more universal accessibility and the relatively lower cost of keeping them up to date, will largely replace technical libraries. TRADOC’s digital library, which offers manuals, publications, graphic aids, course materials, and some full course materials, receives in excess of 2.5 million hits per week.
tial training will be needed, but DL can clearly reduce these require-
ments; it can also better prepare students to engage in hands-on
training, making that training more efficient when it is delivered.

Along the same lines, just-in-time training can facilitate the acquisi-
tion of supplemental skills needed by some selected leaders, both
officers and NCOs. We have in mind here the skills required to per-
form what the military services commonly call “additional duties,”2
including safety, physical security, environmental protection, load
and movement planning and execution, information systems secu-

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2Officers and NCOs assigned these additional duties are not meant to be sophisticated
subject-matter experts. Rather, they are expected to understand the basics needed in
each supplemental duty. This basic understanding is supposed to be sufficient to
enable them to supervise and direct the unit in accomplishing routine tasks relevant
to the duty, to inspect and evaluate the unit’s preparedness to perform those tasks as
required, and to know when, where, and how to request more expert assistance.

3The Army’s Signal Center currently offers a DL course in information systems security
aimed at producing the skills needed for someone assigned this additional duty,
typically on a brigade or battalion staff. It is entirely asynchronous, with an instructor
available on a help line. It has so far trained upwards of 2,000 people.
The benefits of informal learning at home station also include the possibility that materials and training could be shared informally with other members of the home unit or organization. CD-based job aids have already been used for unit training; Web-based exercises and training sessions (e.g., for staffs or staff subelements training on planning processes) could easily take their place, offering greater interactivity and updating capability. This would also be a way to capitalize on the DL phase of professional development courses. For example, an officer or NCO slated for attendance at an advanced course could use some of the DL materials to present a class or run a short seminar for members of the unit. This individual would thereby get practice in presenting training, learn the material himself (thus completing part of the DL requirement), and simultaneously contribute to unit training.

GENERAL EDUCATION BENEFITS

We have so far focused on the potential for DL to enable more efficient acquisition of needed military and technical skills. A less obvious and largely untapped potential is for DL to help the military services raise their general levels of education. The more complex and diverse missions the military services face today put a greater premium on general education, requiring more than ever that leaders have a broad perspective, a fuller understanding of the world environment and its historical context, and knowledge of civilian institutions. The growing complexity of potential missions and of the technology employed to accomplish them increases as well the need for well-developed decisionmaking and critical thinking skills. These skills are developed and enhanced through education. But at the same time that requirements appear to be growing for a more highly educated officer and enlisted force, resource constraints and conflicting time demands are working in the opposite direction.

Traditionally, the military services have provided only professional military education for their enlisted personnel; civil schooling has been expected to occur as part of professional self-development on the service member’s own time. Today’s operational pace and the accompanying greater frequency of deployments make it more and more difficult for service members to find the time (or, more to the point, a sufficiently long uninterrupted span of time) to take advan-
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tage of traditional residential instruction offered at universities, colleges, and local institutions. While this is particularly true for those in operational field units, it holds for those in institutional support organizations as well.

The situation is similar for officers, although in the case of officers we are dealing with more advanced degrees, mostly masters and a few at the doctorate level. Historically, officers enter their service with a bachelor’s degree and some basic military education; subsequently, they receive professional military education at discrete intervals, and some are selected for full-time funded attendance at civilian academic institutions to study for advanced degrees. The rest attain advanced degrees on their own, if at all. This approach may not be adequate to the demands of today and tomorrow. The military’s need for officers with advanced education is increasing, and—as with the enlisted force—the operational pace and frequent deployments make it more difficult to find time to take courses leading to an advanced degree or to the technical certification needed in some career fields.

DL has significant potential to help the military services overcome the challenges summarized above. It can deliver education in smaller packages and provide access to educational materials for students at dispersed military bases and deployed locations. Students can use these packages when and where they can find the time to take advantage of them; thus, the packages are innately easier to schedule. Also, by reducing the importance of geographical separation in selecting educational institutions, DL will serve to make the entire process of offering education more competitive for the offerors.\(^4\) This, in turn, will increase the leverage available to the military services and their members as customers, making it possible for them to receive higher-quality education at the same or lower costs.

While we do not believe DL can fully supplant residential instruction in civilian education any more than it can in military training, it can significantly reduce the need to send service members to blocks of residential instruction and, thus, make the overall process of raising education levels easier. Much remains to be learned about the costs

\(^4\)This is an observation with implications that go well beyond the education of military service members.
and benefits of different ways to capitalize on DL in this regard. Answering the numerous questions that have arisen and are still to surface will require an extensive effort by the Department of Defense, the military services, and the civilian academic community. The result of this effort can well be a cost-effective program for improving general levels of education throughout the military services, despite the challenges of resource constraints, operational pace, and deployments.