

Advanced Blended Learning: Creating a Learning Organization

Linda McGurn
Dynamics Research Corporation
Leavenworth, KS
lmcgurn@drc.com

Dr. Mike Prevou
Strategic Knowledge Solutions
Leavenworth, KS
mike@strategicks.com

ABSTRACT

This paper examines the impacts to people, processes, technology and culture when advanced blended learning (ABL) moves from concept to operational prototype. It outlines the requirements for applying ABL in support of becoming a learning organization using two case studies: The Squadron Officers Course at the Air Force Air Command and Staff College and the Battle Command Knowledge System (BCKS) Knowledge Management Qualification Course.

Most military instruction focuses on routine and explicit task-based skill development, yet the frequency of non-routine situations requiring tacit knowledge will likely double over the next 5 years (Morello, 2006) demanding new tools, services and capabilities to deliver knowledge and performance support to the right place at the right time and in a synchronized approach.

The advanced blended learning approach will help military schools keep pace with the significant changes in learning and performance support tools, and support the type of rapid knowledge creation and transfer required in full-spectrum operations. ABL goes beyond integrating distance learning courses with resident instruction. It combines an adult learning pedagogy with web 2.0 tools, social networking, job support applications and modern collaboration technologies to improve lifelong learning and performance. This approach links learners to the operational world, helps curriculum stay relevant and advances the development of the learning organization.

This paper helps outline the profound changes required in the current training and performance environments, and offers guiding principles and a practical approach to getting started. The paper describes how to support learning before, during and after an event; how to combine knowledge management tools and learning approaches most effectively to maximizing tacit knowledge transfer; and how to scope of necessary system changes.

ABOUT THE AUTHORS

Linda McGurn is a Dynamics Research Corporation (DRC) consultant working under contract on the Battle Command Knowledge System (BCKS) enabling capabilities, focused on developing strategies and operational prototypes for advanced blended learning. Linda holds a BA from the University of Kansas and an MBA from Keller Graduate School of Management. She is also a certified Project Management Professional (PMP). Linda has been an adjunct instructor at Johnson County Community College (JCCC) and at the University of Saint Mary (USM). At USM, Linda designed and taught the MBA program's first Principles of Project Management course, which was initially offered as a blended course (on-line and classroom).

Mike Prevou, Ph.D., is the co-founder and President of Strategic Knowledge Solutions, which specializes in knowledge & learning solutions. While on active duty with the U.S. Army, Dr. Prevou was an Associate Professor at the Command and general Staff College and co-founded the Army Battle Command Knowledge System Program. He remains involved in Knowledge Management (KM) and learning program consultation and design. He is an Adjunct Professor at California State University, Northridge, where he teaches a graduate program in Knowledge Management. His experience includes designing and applying effective vignette based learning environments to improve expertise and decision-making skills, coaching cross-boundary teams to high performance, the development of a knowledge assessment process for organizations and implementation of a wide variety of KM strategies and approaches. Dr. Prevou has published numerous articles in the field of KM, knowledge engineering and expertise development methods.

Advanced Blended Learning: Creating a Learning Organization

Linda McGurn
Dynamics Research Corporation
Leavenworth, KS
lmcgurn@drc.com

Dr. Mike Prevou
Strategic Knowledge Solutions
Leavenworth, KS
mike@strategicks.com

ADVANCED BLENDED LEARNING IS IMPORTANT FOR TODAY'S FIGHT

The military has a stated vision of becoming a learning organization (Air Education and Training Command, 2008; Williams, 2007) in order to produce the agile and adaptive leaders required in today's fight. To realize this vision will depend on changes in military training and education as profound as the changes that our fighting men and women have encountered on the battlefield. Innovation, creativity, and the ability to rapidly adapt formal education to a challenging and changing environment will be vital in the future fight.

The requirement of having agile and adaptive military leaders who can operate in a changing environment is not new.

In 2001, the *Objective Force White Paper* (Department of the Army, 2001) looked into the future and contended that future operational environments will require leaders to change from plan centric to intent centric operations, from physical rehearsals to virtual ones and change from the static command post to situational awareness on the move. "They will be adaptive and self-aware--able to master transitions in the diversity of 21st century Military Operations." That same year, *The Army Training and Leader Development Panel (Officer) Study Report* (Department of the Army, 2001) concluded that future leaders needed to be self-aware and adaptive and that professional military education was not serving this new breed of officers well.

In 2004, Army leaders called for "agile and adaptive leaders to be able to conduct simultaneous, distributed and continuous operations." (Department of the Army, 2004) Leonard Wong wrote "with a cohort of junior officers experiencing and expecting to be treated as adaptive, innovative, and independent leaders putting pressure on the Army from the bottom, and a Chief of Staff of the Army with the virtue of special operating

forces...pushing adaptability from the top, the Army finds itself sandwiched between forces of change. The Army can continue the momentum by leveraging and encouraging adaptability and innovation, or it can allow traditional Army inertia to gradually grind down the out-of-box perspectives of its returning junior leaders." (Wong, 2004)

Yet, in 2009, the challenge of producing agile, adaptive leaders who can respond to the complex and unstable threat environment is still present (U.S. Strategic Command Knowledge Transfer Office, 2009). This suggests that the current military learning model must change.

To achieve adaptability, agility and innovation, the learning model should address two major issues: first, the gap between what is currently taught and what should be taught. Most military instruction focuses on routine and explicit task-based skill development. However, the frequency of non-routine situations requiring tacit knowledge will likely double over the next five years (Morello, 2006)

Second, the military learning model should incorporate the informal, experiential learning that accounts for as much as 70 percent of the knowledge gained on the job (Cross, 2003). A landmark study on firms that are considered learning organizations found that for every hour of formal learning in these firms, there were four additional hours of informal learning (Cofer, 2000).

The emerging U.S. Army Leader Development Strategy, currently in draft, acknowledges the need for a new educational paradigm and embraces advanced blended learning as a means to developing self-aware and adaptive leaders who are adept at solving complex, ill-structured problems.

WHAT IS ADVANCED BLENDED LEARNING?

Advanced blended learning is different from traditional blended learning in two important ways. First, it deliberately and systematically adds the informal, experiential learning that is critical to improved human performance (Rosenberg, 2006). The informal learning does not replace the formal, structured training and education programs, but rather complements, facilitates and reinforces them. Second, advanced blended learning uses tools like web 2.0 to integrate every aspect of the work and learning processes.

With advanced blended learning, training and education blend into current and relevant operations. What students learn in the classroom is adapted in the field and then shared with others using collaborative technologies and tacit knowledge transfer methodologies.

In the advanced blended learning model, the roles of instructor, student and team leader change. The instructor and trainer transforms into learning coach and facilitator. Student roles expand from learner into peer advisor, and students take direct accountability for learning. Team leaders in the workplace become part of the teaching process, and there is a tight connection between what is taught and the team's mission (Kegan & Lahey, 2009).

Contrast this with the traditional blended learning used by the military today. That training is formal, whether delivered in a classroom or in an advanced distributed format. Because it is formal, and often "pushed," the course material is typically not contextual "in the moment" or individualized to the learner but rather structured (Hoffman, 2005). The learner does not control the content and there is little opportunity for user-generated content in the group-learning environment. This limits the tacit knowledge transfer that supports learning.

In addition, the traditional blended learning event is seen as time away from work, not part of the natural flow of work. Once the instructional event concludes, the student must rely primarily on self-directed learning to extend the knowledge gained in the course.

Advanced blended learning helps shift the learning paradigm from instructor-centered to learner-centered (Figure 1), creating a demand-side, performance-centric learning environment that is timely and responsive to the situation at hand. In this way, it supports the Department of Defense vision of

"anytime, anywhere" delivery of training (U.S. General Accounting Office, 2003).

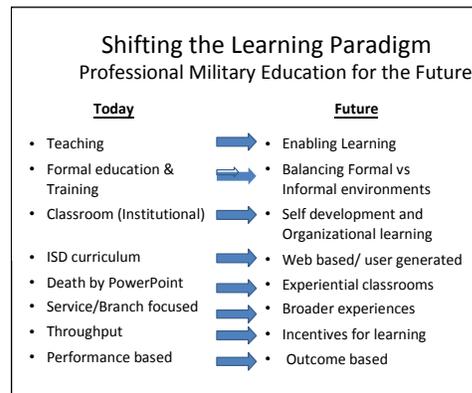


Figure 1. Shifting the Military Learning Paradigm

APPLYING ADVANCED BLENDED LEARNING IN THE MILITARY

Advanced blended learning is a solution for the military that can help address the deficiencies in the current learning model, and has the potential to turn typical transactional teaching organizations into transformational learning organizations.

It can accomplish this by meeting these four goals:

1. Link the institutional training and education with the operational field and the learner in a structured triad
2. Integrate the formal and informal learning environments for learning-on-call, deliberate practice and coached expertise
3. Leverage the applications available on the web (at little to no cost) for learning
4. Provide an environment where continuous learning may occur, before, during and after an event/operation/course.

Advanced blended learning helps leaders rapidly adapt leadership styles and decision-making to situations not previously encountered. Knowledge gained in the classroom can be fused with the situational awareness gained from the informal, social learning happening on the ground. This creates a just-in-time learning capability that includes social networks of expertise, peer-to-peer assistance, tools and processes for improving communication and collaboration, and a "digital practice field" (Prevou, Veitch, & Sullivan, 2009).

The backbone of the advanced blended learning model is the integration of formal learning with informal “on-the-job” individual, team and unit learning environments. Learning moves from the classroom to the work team. In this way, learners are linked to the operational world and the operational world is linked back to tools for just in time learning. By extending the “classroom” to our everyday life, content is generated from the ‘field’ not by curriculum developers who may be disconnected with the demands of actually performing on the job.

The informal, social learning that is at the heart of advanced blended learning helps drive creativity and innovation by ensuring that insights, lessons learned and experiences are captured and shared. Stories and concepts are transformed into vignettes, judgment exercises and decision games. These, in turn, generate reflective experience in other individuals, teams and units.

Some examples from the U.S. Army include:

- Professional Forum-Transition teams use interviews with returning Military Transition Team members to set a situation and generate a conversation.
- Oral Histories by the Command and General Staff College record the challenges and experiences of returning OIF/OEF veterans and apply knowledge engineering to distill out lessons learned.
- The STRYKETNet uses both the SLA Marshall video series of decisions in combat and quarterly live “webinars” to capture stories, turn them into vignettes, build simulated scenarios around the vignette and then acculturate a wide cohort of leaders preparing to join the STRYKER Brigade Combat Teams.

The advanced blended learning model can provide the military a set of thinking tools that complements and reinforces the existing processes while taking advantage of the web 2.0 technologies. It can provide practical ways to leverage collaboration tools to increase opportunities for peer-to-peer communication and experiential learning. In using these tools, advanced blended learning can also help accommodate the different expectations and learning styles of Generation X & Y leaders.

Knowledge Management and Learning

Knowledge management (KM) is a key component of advanced blended learning. Recent attempts to apply information management tools to learning and KM requirements have fallen short of expectations and it is now commonly accepted that the information management tools/technologies, while good at managing data stores and processing information, are a smaller subset of the larger knowledge management discipline (Harris, 2006). Knowledge is said to be social, it is a human characteristic and tacit knowledge can only be expressed and transferred from person to person. Learning occurs when knowledge, not information or data, is applied.

The U.S. Army defines two types of knowledge: information analyzed to provide meaning and value or evaluated as to implications for operation (explicit knowledge). It is also comprehension gained through study, experience, practice and human interaction that provides the basis for expertise and skilled judgment (tacit knowledge) (Department of the Army, 2008). Explicit knowledge can be expressed, written down and managed as an artifact. Tacit knowledge is the knowledge in our heads. It is often inexpressible and can only be transferred in conversations or through deliberate methods used in knowledge engineering.

Discovering and accessing explicit information is important, but the actual transfer of tacit knowledge is vital to increased learning and knowledge within an organization (U.S. Strategic Command Knowledge Transfer Office, 2009) Advanced blended learning applies KM tools, practices and technologies to enable continuous tacit knowledge transfer. The result is an expanded experiential base for fighting men and women, and continuous learning as knowledge gained in the classroom is applied in operations and new knowledge is generated.

As leaders collaborate and share knowledge gained from their experiences, leader development can be transformed. In this way, leaders and the teams they lead can become learning organizations, continuously and rapidly transferring tacit knowledge.

OPERATIONALIZING ADVANCED BLENDED LEARNING

The strategies to accomplish the advanced blended learning environment include first and foremost the expertise to architect the parts into a effective and

synchronized system, and then the passion and dedication of a few early adapting faculty members and organizational leaders to follow through on the requirements to make change management stick. Then we add the tools and processes that make up the ingredients. These include the learning management tools, the knowledge management processes and collaborative toolsets, the information management and communications technologies, the use of simulations and virtual reality and the interactive coaching (be it human or Avatar) to produce deliberate and mindful practice which will build mental models in a learner and make learning stick.

Applying advanced blended learning will require changes in both the training and performance environments. On the following pages, the authors will describe the general impacts to people, processes, technology, and culture when implementing advanced blended learning. The authors then will use two case studies to describe these changes and offer guiding principles and a practical approach to getting started. The first case study is the Squadron Officers Course at the Air Staff College. The second case study examines the Army Knowledge Management Qualification Course developed and piloted by the Battle Command Knowledge System (BCKS).

People

With advanced blended learning, we move to a student-centered, rather than instructor-centered learning paradigm. This means that the learner—the knowledge seeker—is the source of the enterprise learning context. Instructors become one of many sources of learning, which can also include decision games, digital stories, coaches and mentors. Students team in and beyond the classroom, enabled by communities of practice, and their roles evolve from learner to peer advisor and facilitator. The role of the instructor evolves beyond trainer-educator to include facilitator, mentor and coach. Both instructors and students become lifelong learners, sharing their knowledge in collaborative environments.

Processes

Learning processes begin before a formal training event as the students establish formal and informal learning communities. The learning continues after the training event through collaboration with communities of peers and coaching. Course delivery shifts from primarily *push* (supply-side) to *pull* (demand-side) and *prod* (to encourage someone to take action)—for example, facilitated online discussions relevant to the

area of learning suggesting specific topic to review or changes to doctrine.

The most profound process changes will occur as training and educational processes integrate with operational processes. Closing the performance gap between what the force must do and what the force can do is the ultimate goal of advanced blended learning. Learning should be directly tied to improved performance, of the individual and the organization. Tools and processes to enhance performance should be developed and applied in the context of learning, and vice versa. Knowledge management processes become the enablers.

Technology

The technology changes required in the military to support advanced blended learning are far-reaching. These changes include:

- User-generated content
- Cloud computing: networked computers that distribute processing power and applications among many machines. (Applications such as Flickr, Google Docs, and YouTube use a cloud as their platform, just as programs on a desktop computer use that single computer as a platform.)
- Mobile devices
- Smart objects: any physical object that includes a unique identifier that can track information about the object. Smart objects can be used to manage physical things digitally, track them throughout their lifespan, and annotate them with descriptions, opinions, instructions, warranties, tutorials, photographs, and so on.

Some of the enhanced functionality that advanced blended learning will depend on includes:

- Personalized portal with single sign-on
- Web 2.0 and Service-Oriented Architecture (SOA)
- Micro communities of practice
- Simulations and animation
- Content management and federated search across training and performance
- Demand-side learning and performance architecture
- Collaborative workspaces

- Learning management and learning support systems
- Semantic web (allows data to be shared and reused across application, enterprise, and community boundaries)
- Data interchange formats like XML
- Rapid, online publishing (codification)

The most challenging change will be the interoperability across key systems (training, education, performance support) that support the seamless blending of learning into the workplace.

In 2007, the Army began to address interoperability just within the training domain with the creation of the Single Army Training and Leader Development Enterprise (SATLDE). The intent was to optimize and unify training processes and systems, and integrate them into an enterprise approach. In developing this approach, the Army identified several specific technology challenges, which still exist:

- Redundant processes
- Excessive span of control
- Lack of standardization

Culture

While the changes in people, processes and technology will be broad, the most profound changes will occur in culture. As learning becomes more unstructured and informal, centralized administration of curriculum development will give way to decentralized development of learning objectives and methods that integrate tools and experts used on the job. Experiential learning will stand on equal footing with education.

CASE STUDIES

US Air Force Air Command and Staff College (ACSC) Case Study

“About 4 years ago the Air Force identified a gap in the way it trains and sustains its squadron commanders, so we decided to start a community of practice where people could share their experiences with others in a professional setting,” said Lt Col Michael Hower, Chief of Squadron Commander Professional Development at ACSC.

“We wanted to take how commanders learn--talking to one another informally--and create a conversation on a global scale.” Communities of practice provided this mechanism for commanders to communicate with each another and exchange ideas. It is also first step toward integrating the institutional learning environment with actual operations in the field. The ACSC project brought communities of commanders into the classroom and made them part of the curriculum. Students were able to link directly with commanders in the field and get first-hand experience about operational issues.

Since those early days, Hower and Dr. Bart Kessler, ACSC Dean of Distance Learning have worked with students and faculty to integrate the right mix of live, virtual and constructive education into the command courses offered by ACSC and other schools at Air University. They continue to advocate for web 2.0 tools in the curriculum as fast as the infrastructure and faculty can adapt to it. Some of the initiatives underway are:

- Expanding the Commanders Connection program into the ACSC in-residence, online, and correspondence squadron command courses, where students are introduced to the wealth of resources available for pre-command preparation and in-command support via the collaborative web.
- Using the power of wikis and mass collaboration to revise the ACSC cornerstone textbook on command, and promote the use of that “live” textbook *as it is edited* in command education, training, and orientation courses across the force.
- Prototyping other communities of practice to link educational programs for lieutenants, captains, and field grade officers to practitioners in the field.
- Integrating communities of practice and professional forums into the new @AF.EDU system, making true collaborative learning available to students across the force, not just at a formal school.
- Adopting artificial intelligence cognitive assistants to help students find the right information, at the right time in support of learning and operational goals.

ACSC is also conducting research on making lessons more experiential using vignettes to place the students in the moment. Hower believes that combining these

vignettes with social networks will create a means to share experiences and help students build better mental models for dealing with new situations.

In addition, by applying tools like wikis to build standard operating procedures, handbooks and “how to” documentation, he hopes to create a dynamic capability where a culture of collaboration will flourish.

Designing Advanced Blended Learning into AKMQ

BCKS created the Army Knowledge Management Qualification course to train designated KM Section personnel to establish and maintain KM programs, develop and apply knowledge strategies. The ultimate objective is that units may access, and use, organizational and individual knowledge and relationships more effectively, and for a competitive advantage.

In its five-week AKMQ pilot course, conducted in July and August 2009, BCKS applied some advanced blended learning methods to support students as they travelled through their individual learning journey from “prepare me” to “connect me.” (Woodall, Hovis, & Miller, 2006)

Before the course began, BCKS established a link on the KM Training page where students could access course material and information about the course as well as connect to the larger population of practicing KM professionals.

During the course, instructors encouraged collaboration inside and outside the classroom, so students were able to apply the tools that they were learning. These included participating in the KMNet community of practice. Students became members automatically when they enrolled. Instructors (who are actual practitioners, many in adjunct roles) began discussion threads about topics related to general knowledge management practices happening (or not) in the organizations across the Army. Instructors used KMNet throughout the course to “prod” learning by posting questions for students to think about and discuss the following day. After the course, the community of practice served to connect KM practitioners to both peers and updated learning content.

Reachback during the course facilitated tacit knowledge transfer, as experts for each of the respective course modules were accessible to students. Instructors also facilitated tacit knowledge transfer among students through discussion and storytelling,

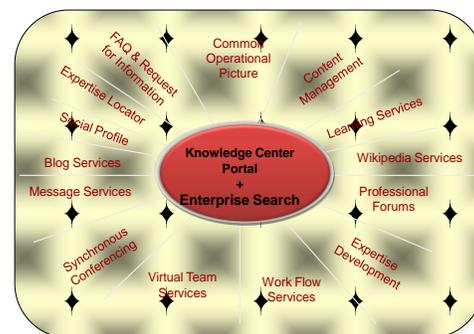
having students compare what they were hearing with what they observed/experienced in their organizations.

Finally, once the student returned to their home station, informal learning tools were made available via the course knowledge portal to support and reinforce the learning. These included articles and references provided by the instructors. The collaborative tools taught in the course, like forums, were an important part of the “connect me” phase of the learning (Woodall, Hovis, & Miller, 2006) where learners work within communities to share ideas, solve problems and further develop their KM expertise. After the course concluded, instructors remained available for reach-back, coaching and mentoring.

The longer-term vision calls for the addition of performance support tools and expertise development vignettes in the course that build awareness and decision making skills.

To move to student-centric learning, instructors will review student profiles before the students arrive in class, and adapt the practical exercises to better target the students’ experience and development interests.

The link currently on the KM Training page will evolve into a knowledge center portal (Figure 2), and will be a platform rather than an application. This platform will provide not only learning and social networking services, but also performance support and collaboration services, expertise development tools, and expertise locators.



*Mike Prevou & Jeff Stamps (2008)

Figure 2. Knowledge Center Portal

Training and modules on KM will be available on the knowledge center portal for the unit KM professional to use at his or her organization to teach core KM competencies. Podcasts and video of formal classes will be available and linked to discussions in KMNet, and members of the formal course can discuss the

current challenges and potential solutions with those on the job.

A wiki used in the course for creating a KM strategy and action plan will stay available as a template for KM professionals to adapt to their unit's needs.

Finally, longer-term support will be coordinated with the home stations, and will include peer coaching, shadowing, targeted team participation, and online support.

CONCLUSION

Advanced blended learning has been shown to be effective in pilots. By combining knowledge management tools and learning approaches, learning can be supported before, during and after an event.

Advanced blended learning will involve changing roles for instructors, students, and their supervisors. Instructors will avail themselves of new technology and collaborative tools to enrich the learning in the classroom, and remain with their students as mentors and coaches. Students will become engaged earlier and remain engaged in the learning after they return to their home station, with their roles evolving into peer mentors. Supervisors will become critical players and sources of support and coaching when the student returns to the home station by creating a culture of collaboration, and encouraging peer-to-peer communication and experiential learning.

Successfully implementing advanced blended learning across the enterprise will depend on many factors including:

- an infrastructure that is reliable and accessible;
- an approach that looks at the knowledge center as a platform for learning, not an application itself.;
- the ability to plug and play commercial off-the-shelf applications and content as needed;
- an architecture that is more than technical but leverages the social networks and relationships critical to effective job performance;
- a team focus, and crossing boundaries and networking the hierarchical organization.;
- imagination, courage and determination of our educational leaders to understand Gen X and Y and how they learn and work;

- and the innovative spirit that led the way in so many initiatives to once again get out in front and innovate.

The military can enable the development of self-aware adaptive leaders by placing a greater emphasis on enabling learning, in both formal and informal environments, and by increasing the availability of self-development curriculum, social networks, and learning and performance support tools. This helps provide commanders in units the tools they need to develop their leaders on the job.

This shift, as the Air Force has already learned, is a significant cultural change to mostly the upper-middle levels of the military. Some will not be capable of the change, and others will be slow. Some have already recognized the need and understand the power of these new technologies and learning processes.

Former Army Chief of Staff and current Secretary of Veterans Affairs General Eric Shinseki said in a recent open letter to veterans "historically, organizations that are unwilling or unable to change soon find themselves irrelevant." (Shinseki, 2009) As we stand at the crossroad, approaches like advanced blended learning and the web 2.0 tools available offer us opportunities to update our learning environments and make them more relevant and effective.

The challenge for the military is to overcome the inertia and support the momentum.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the following individuals, whose insights and generous input contributed greatly to this paper: Dr. Rick Morris, Lt Col Michael Hower, and Dr. Holly Baxter.

REFERENCES

- Air Education and Training Command. (2008). *On Learning: The Future of Air Force Education and Training*. Headquarters, Air Training Command.
- Cofer, D. A. (2000). *Informal Workplace Learning*. Clearinghouse on Adult, Career, and Vocational Education.
- Cross, J. (2003). *Informal Learning -- the other 80%*. Retrieved March 16, 2009, from

- www.internetttime.com:
<http://www.internetttime.com/Learning/The%20Other%2080%25.htm>
- Harris, K. (2006). *Knowledge Management Enables the High-Performance Workplace*. Gartner Research.
- Headquarters, Department of the Army. (2001). *Concepts for the Objective Force*. Retrieved April 10, 2009, from <http://www.army.mil/whitePaper/ObjectiveForceWhitePaper.pdf>
- Headquarters, Department of the Army. (2008). Knowledge Management Section. In *Field Manual 6-01.1*. Headquarters, Department of the Army.
- Headquarters, Department of the Army. (2001). *The Army Training and Leader Development (Officer) Study*. Retrieved April 10, 2009, from <http://www.army.mil/atld>
- Headquarters, Department of the Army. (2004). *The Way Ahead*. Washington D.C.: U.S. Government Printing Office.
- Hoffman, B. (2005). *Informal Learning*. Alexandria: ASTD Press.
- Kegan, R., & Lahey, L. L. (2009). *Immunity to Change*. Harvard Business School Press.
- Morello, D. (2006). *Map Knowledge and Learning to the Types of Work Encountered*. Gartner Research.
- Prevou, D. M., Veitch, B., & Sullivan, R. (2009). *Teams of Leaders: Raising the Levels of Collaborative Team Performance*.
- Rosenberg, M. J. (2006). *Beyond E-Learning*. San Francisco: Pfeiffer.
- Shinseki, G. E. (2009). *An Open Letter From Secretary of Veterans Affairs Eric K. Shinseki*. Retrieved June 17, 2009, from www1.va.gov: <http://www1.va.gov/opa/secretary/letter.asp>
- U.S. General Accounting Office. (2003). *Progress and Challenges for DOD's Advanced Distributed Learning Programs*. Washington D.C.
- U.S. Strategic Command Knowledge Transfer Office. (2009). *Knowledge Transfer...through People*.
- Williams, C. J. (2007). *Is the Army a Learning Organization?* U.S. Army War College.
- Wong, D. L. (2004, July). *Developing Adaptive Leaders: The Crucible Experience of Operating Iraqi Freedom*. Retrieved April 10, 2009, from www.strategicstudiesinstitute.army.mil/pdf/UB411.pdf
- Woodall, D., Hovis, S., & Miller, M. (2006). *Eight Phases of Workplace Learning: A Framework for Designing Blended Programs*. SkillSoft.

Getting Started

There are steps that organizations can take today to begin moving to an advanced blended learning environment. The checklist below can serve as a tool for organizations that want to get started with advanced blended learning.

	BEFORE	DURING	AFTER	
People	<ul style="list-style-type: none"> ✓ Communities of purpose ✓ Roles, responsibilities ✓ Team building 	<ul style="list-style-type: none"> ✓ Identify knowledge sources for course (experts) ✓ Identify CoP 	<ul style="list-style-type: none"> ✓ Start with teambuilding to reinforce support network among students ✓ Bring experts into the classroom to share expertise 	<ul style="list-style-type: none"> ✓ Put students in contact with peer coaches in workplace ✓ Encourage students to participate in CoPs specific to development areas ✓ Instructors available for reachback
Process	<ul style="list-style-type: none"> ✓ Course delivery ✓ Continuous learning ✓ Performance support 	<ul style="list-style-type: none"> ✓ Identify performance support tools ✓ Align course objectives with standard of performance and method of delivery 	<ul style="list-style-type: none"> ✓ Teach students to collaborate ✓ Use performance support tools in classroom 	<ul style="list-style-type: none"> ✓ Leaders reinforce performance support tools ✓ Schedule coaching sessions with instructors; these become part of performance support
Technology	<ul style="list-style-type: none"> ✓ Knowledge Centers (KC) ✓ Collaborative tools 	<ul style="list-style-type: none"> ✓ Establish KC ✓ Identify collaborative tools ✓ Ensure student access 	<ul style="list-style-type: none"> ✓ Use social networking tools to promote collaboration ✓ Incorporate KC in classroom 	<ul style="list-style-type: none"> ✓ Keep KC current with tips and techniques ✓ Push and prod learning delivery continues, integrated with performance support
Culture	<ul style="list-style-type: none"> ✓ Leader as learning coach ✓ Informal learning ✓ Collaboration 	<ul style="list-style-type: none"> ✓ Leaders help set learning conditions 	<ul style="list-style-type: none"> ✓ Leaders visible (physically or virtually) 	<ul style="list-style-type: none"> ✓ Leaders help assess learning ✓ Curriculum responsive to insights and learning needs