

Agile Training - Infusing a Culture of Innovation into Training Warfighters

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ABSTRACT

Training is a cornerstone of our Army. In the 2005 Army Posture Statement, Well-Trained Soldiers led by Adaptive Leaders is one of the four key areas supporting Transformation. Currently we are fighting a 21st century enemy with many burdensome training tools and systems. We are fighting an adaptive/learning enemy and we need to be agile enough to anticipate and adapt to his changes in techniques in near real or real time. We must change our mindset as stated in a recent TRADOC website article "Adapt or Die" which stresses the need for a culture of innovation. In addition, we must have the flexibility to train across the full spectrum of warfare at a moment's notice. There are exceptions, but agility is not currently a high priority in the training community. We propose using an Agile Program Management mindset to lay out a road map for providing training to our warfighters. The warfighter must take advantage of existing tools/technologies, like commercial games, and make 'good enough' adaptations to provide agile solutions for our Soldiers, Marines, Sailors, Airmen and Coast Guard. We will show how some of these ideas were used to quickly develop the successful Gauntlet Training Program used by the 16th Cavalry Regiment at Fort Knox to train Armor/Cavalry Soldiers. Some of these techniques included: quickly defining 'good enough' requirements; using commercial products to provide rapid prototypes and solutions; using simulation to provide multiple events at a low cost per iteration; and leveraging the skills of the instructors. We will also provide some lessons learned from the Gauntlet program and propose some ideas for a way ahead. Change is occurring at an astounding rate in our services today, and we must be ready with processes and products that support innovation to facilitate our agility on today's and tomorrow's battlefield.

ABOUT THE AUTHORS

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FIGHTING A HUNDRED BATTLES[®]

Today's Challenge

Training challenges today are driven by the current Strategic Environment (Global War on Terror - GWOT) and an asymmetric enemy who rapidly adapts to the tactical, operational and strategic situation using numerous non-traditional and traditional means. We want to propose a training concept, framed in this article for the ground forces portion of the Joint Team, to develop more agile leaders. Our concept is to create a culture of innovation and adaptive leaders by "Fighting a Hundred Battles[®]" in our leader development system.

We believe that the Army's and DoD's Transformation must change to allow leaders to experience multiple simulated battle experiences before they graduate from leadership schools. We also believe that this can be accomplished with a change in focus of our schools by developing Battlefield Wisdom[®] with tough, challenging, battle-focused simulations in constructive, virtual and live settings.

We know training is a cornerstone of our Army. In the 2005 Army Posture Statement, Well-Trained Soldiers led by Adaptive Leaders is one of the four key areas supporting Transformation (United States Army, 2005). Currently we are fighting a 21st century enemy with many burdensome training tools and systems from pre-Transformation times. Our idea is that by "Fighting a Hundred Battles[®]" and developing Battlefield Wisdom[®] combined with Agile Program Management (APM) concepts, will allow warfighters to create the conditions for future battlefield success.

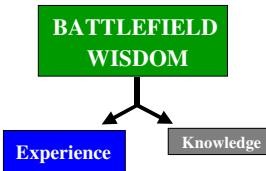
To train ground combat forces to meet this threat, our forces must win every fight and then go on to win the peace. A fundamental underpinning of developing agile and adaptive leaders is a mindset that includes a culture of innovation (Fastabend, D. A., & Simpson, R.H., 2005, p1). Part of our challenge is "our 'competitors' are living, thinking and adaptive adversaries who mean to destroy us and the society we defend." (Fastabend, D. A., & Simpson, R.H., 2005, p2)

This requirement demands "training overmatch" and mature tactical leadership. In short, we must build adaptive, thinking leaders who can solve complex tactical and cultural problems across the full spectrum of missions. We define this quality as Battlefield Wisdom[®].

Battlefield Wisdom[®]

Battlefield Wisdom[®] has two subcomponents: knowledge and experience. See figure 1.

Transforming How We Train/Teach



Increase battlefield wisdom by employing constructive, virtual and live simulation as the core teaching method to develop self-confident adaptive leaders

Figure 1.

Until recently, most training and education for ground combat leaders in the institutional training structure of the U.S. Army and Marine Corps, has been heavily weighted toward knowledge. This was due to the belief that leaders would gain basic knowledge in the classroom and experience in the field.

We no longer have that luxury and must find ways to flexibly teach leaders and give them battle-winning experiences in the institutional training structure. We need to develop and nurture Battlefield Wisdom[®].

Training Developers (TRADOC in the Army's case) need to shift the leader education system from knowledge-based classroom-centric instruction to experience-based battle simulation exercises. *Talk Less and Fight More!*

Where Are We Today?

In a recent series of articles, “The Thinking Soldier, Can Army Training Teach Flexibility?”, the Army stifles, rather than encourages innovation (Wong, L., Dolan P. & Folds, D., 2005, p18) was one of the comments on our current training regimen. This is exactly what we don’t want to instill in our Army, given the current fight. It creates real cause for concern. The current training condition was described as:

“...The resulting culture encouraged reactive instead of proactive thought, compliance instead of creativity, and adherence instead of audacity. Junior officers and especially company commanders” the report stated, “were seldom given opportunities to be innovative, to make decisions or to fail, learn and try again.” (Wong, L., Dolan P. & Folds, D., 2005, p19)

The need for adaptability is also well documented. “The need to keep young officers constantly up to speed on combat basics, enabling them to adapt faster and easier when they confront new challenges.” (Scully, M., 2004, p41) But the real question is: What are we doing to help our leaders develop the skills needed to succeed?.

We are fighting an adaptive/learning enemy and we need to be agile enough to anticipate and adapt to his changes in techniques in near real or real time. We must change our mindset as stated in a recent TRADOC website article, “Adapt or Die”, which stresses the need for a culture of innovation. (“Adapt or Die” was also published in *Army Magazine*) In addition, we must have the flexibility to train across the full spectrum of warfare at a moment’s notice. There are exceptions, but agility does not appear to be a core value in the training community, hence the “Adapt or Die” article and video on the Army’s professional development websites.

“Institutional agility – and clear proof of a culture of innovation” (Fastabend, D. A., & Simpson, R.H., 2005, p3) is what we need, and we currently don’t have such agility. We still train predominately in a brick and mortar schoolhouse with POIs that take years to approve and training systems that take years to weave through the requirements and acquisition cycles.

Our goal should be – “to be superior in the art of learning and adaptation.” (Fastabend, D. A., & Simpson, R.H., 2005, p2) “The point of fact is our relevance has to be anticipator for the next war.” (Scully, M., 2004, p41)

What are some impediments to a culture of innovation/change and what is keeping us from doing more?

Extensive focus on process vs. product significantly impedes innovation. This is the issue with training today. Look at the requirements, budget and acquisition cycles – none of them are designed for innovation or change. The process must be responsive to the pace of ideas, technology and the rate of change of our enemy.

We are responding to the warfighter with a resource process that has a three to six year lag time to make major impacts. Individual instances, like the Rapid Equipping Force and the Army Center for Army Lessons Learned (CALL) program are exceptions to the overall Army plan and frankly aren’t supported by our bureaucratic requirements and budget process that feed the sustainment and acquisition base.

We need to be able to respond to the warfighter in a timely manner with ‘good enough’ tools to let leaders at all levels (especially junior levels if OIF and OEF are any indication) do what they need to be successful. We need to give them the tools to succeed on today’s battlefield as soon as they arrive in the battle zone.

Using Agile Program Management Concepts

We looked at an Agile Program Management framework to provide a more innovative process for providing training capability to our warfighters. The warfighter must take advantage of existing tools/technologies, like commercial games, and make ‘good enough’ adaptations to provide agile solutions for our Soldiers, Marines, Sailors, Airmen and Coast Guard.

The core values of Agile Program Management (APM) support an agile training idea and are summarized below:

- Individuals and interactions over processes and tools
- Working products over comprehensive documentation
- Customer collaboration over contract negotiation

- Responding to change over following a plan
This doesn’t mean that process, documentation, contracts and plans aren’t important; but they aren’t as critical as the items on the left.

We want to borrow some of the APM ideas, innovation, agility, responsiveness and reduced cycle time to see

how we can work to implement them into a training path forward to deliver more agile training capability, and hence warfighting capability to our soldiers.

Other APM concepts we want to take advantage of include:

Continuous Innovation. Requires a mindset that fosters innovation.

Product Adaptability. The future will always surprise us. We must strive for product adaptability which translates to lowering the cost of change (adaptation) as our needs change.

Reduced Delivery Schedules. Iterative, feature based products demand focus, streamlining, and skill development. Focus means that you have IPTs that choose the features and richness of those features. Streamlining means work on the key capabilities and eliminate marginal features – get away from bells and whistles, the gold watch.

People and Process Adaptability. You must build adaptable teams – teams that are comfortable with change and understand it as part of the current situation.

What does this translate to for developing agile training in the future?

We need to leverage technologies wherever we find them. Commercial games are the most often cited panacea in the literature today; but alas, there has been little or no follow through with resources to make them real enablers. We must make creativity, innovation and prudent risk the norm for getting training capability to our warfighters.

By looking as some of the precepts of APM we can look for another way ahead outside of the current stagnating processes that in the norm take years get capability (training or otherwise) to the field. If we are to believe that in the future we will be an Army constantly deployed and engaged, rather than our recent history of forward deployed and ready, we must streamline our ability to get good products, services and solutions in the hands of our soldiers faster. Quick fixes like the Rapid Equipping Force (REF) and using CALL as a doctrine/TTP provider must be formalized or they will perish in the bureaucracy.

The Army needs to provide a real framework that will support this innovation, not stifle it. That means a responsive resource environment, getting away from a risk averse culture and being satisfied with a rapidly

deployed ‘good enough’ solution to support the commander and not wait for a perfect solution completed after the fact.

Agile project management and agile training calls for a switch from anticipatory (fighting the first battle of the last war) to adaptive styles of development of the tools, capability - what we've titled Battlefield Wisdom[®]. We need to have a training capability that isn't necessary always executed as planned, but as it and evolved to meet the warfighter needs and requirements of the battlespace.

Agile project development focuses on speed, mobility and quality (Highsmith, J.,2004, p3). The same traits we want to deliver in training our warfighters.

The interesting parallel between the Adapt or Die article and Agile Project Management is innovation. Both focus on innovation as a key tenet of success. We'll put it out on the table right now; the Army is a conservative organization, not known for innovation, hence a huge leadership and culture challenge.

Making Our Schools Agile

We propose that our schools retool their thinking to focus on the development of Battlefield Wisdom[®] by taking advantage of existing tools/technologies like commercial games, and making ‘good enough’ adaptations to provide agile solutions for our Soldiers, Marines, Sailors, Airmen and Coast Guard. Using the values of APM will help facilitate this process.

We need to leverage technologies that can provide leaders with battle experiences in the schoolhouse. We need a suite of simulations that help to focus critical thinking and provide leaders multiple iterations of experiences.

Agile organizations have three key traits:

- An adaptive culture that embraces change.
- Minimal rules that encourage self-organization, combined with the self-discipline to closely adhere to those rules
- Intense collaboration and interaction among the project community.

We must instill these traits into our intuitional training system.

A Success – The Gauntlet Program

A real world example of agile training, the Gauntlet Program, was conducted at Fort Knox from 2000 to 2002.

What is a Gauntlet?

GAUNTLETS are multi-echelon, multi-grade, battle-focused leadership experiences that allow students to work together in teams to solve complex tactical problems and develop into self confident, adaptive leaders who are prepared to lead teams upon graduation. The intent of a GAUNTLET is to provide students preparing for platoon leadership and company command with multiple leadership experiences. GAUNTLETS train students in multi-grade units comprised of students overseen by a common cadre of instructors/observers/controllers. The goal of all GAUNTLETS is to develop students into adaptive, self-confident leaders. GAUNTLETS consist of constructive, virtual and live training events that provide each leader with multiple evaluated leadership experiences, more hands-on, tactical problem solving, leadership development experiences to develop leaders who train and lead units to win on any battlefield across the full spectrum of conflict. The combination of ANCOC students as platoon sergeants, AOB students as platoon leaders, and AC3 students as company commanders leads to mentoring and learning on a scale not seen in straight peer group training.

It still exists today, in a reduced form as it fought upstream against the traditional training and educational approach.

How Gauntlet Used Agile Concepts

These agile concepts were used to quickly develop the successful Gauntlet training Program used by the 16th Cavalry Regiment at Fort Knox to train Armor/Cavalry Soldiers. Some of these techniques included: quickly defining 'good enough' requirements, using commercial products to provide rapid prototypes and solutions, using simulation to provide multiple events at a low cost per iteration and leveraging the skills of the instructors.

One of the things that set the Gauntlet Program apart is that it didn't follow the processes of a formal Army program. Innovation and individuals prevailed over process. The 16th Cavalry Regiment developed the program internally to respond to training demands and leverage the skilled personnel available. It was also developed quickly and it responded to change rapidly.

The Gauntlet program focused on building Battlefield Wisdom by using simulation tools, especially

commercial constructive tools, to allow developing leaders to fight hundreds of battles to gain experience. Hence the concept of "Fighting a Hundred Battles[®]" using simulation enablers as a "time machine" to build the battle command experience needed to develop adaptive, self-confident leaders.

From an acquisition perspective the Gauntlet program again went against the grain by using working products instead of developing comprehensive documentation and requirements. The 16th Cav bought the rights to use a commercial game, TacOps, which had the necessary constructive simulation and user interface to support the leadership training requirements. And by working in collaboration with the game developer, the commercial product, as well as the training value could be improved. A win-win situation for the warfighter and industry.

One of the most significant innovations in Gauntlet was to integrate the levels of participants in the program. This was a fundamental shift in how training had been conducted. By coordinating the different training school schedules (covering ranks from Staff Sergeant to Colonel) within the 16th Cav students were combined in their proper real-world context, such as Platoon leaders learning and working with Company Commanders – although they were in different courses. Hence, more realistic battle command teams and the corresponding interactions took precedence over just doing the exercise and resulted in a richer training experience. See figure 2.

Fundamental Shift

Execute the training methodology in a Battle School fought by TEAMS of students of different ranks in GAUNTLETS.



Provide students individually and in teams through multiple leadership battle command experiences to develop students into adaptive, self-confident leaders.

Figure 2.

Although not a Gauntlet innovation, the program was designed to take advantage of the experience of the instructors within the 16th Cav. Experienced trainers know how to leverage the tools they had to develop agile leaders. Small groups with experienced trainers,

multiple echelons of leadership and the simulation tools to fight multiple battles produced a powerful training environment.

This is just a brief look at how some of the APM concepts applied to the Gauntlet program. The critical element was the desire to develop Battlefield Wisdom® into the development of agile and adaptive leaders. Putting the warfighter first, and working the system to set the conditions for success is what allowed Gauntlet to succeed.

Unfortunately, as mentioned earlier, innovation is not the norm. It is much easier to go down the well worn path that has historically produced a good force. We think we can do better. We need to innovate and adapt.

The Road Ahead – To Agile Training And Leaders

The most significant change we must accommodate is the rate of change itself. (Fastabend, D. A., & Simpson, R.H., 2005, p3)

During this period of Transformation the road ahead is very crowded with concepts and ideas. Making our training agile and adaptive is key to our future success. We believe that since Leadership is a critical combat multiplier the task of training agile leaders is also critical. Looking outside the normal paths, like examining Agile Program Management concepts, is a healthy way to foster innovation and help create the desired future. Innovation and creativity will enable us to fight the hundred battles we need to train and develop the force.

How could a ‘big Army’ process help a program like Gauntlet succeed? Today there are no widespread mechanisms built to support innovation as we have described it above. So the answer is that innovation is a hostage to process and our resource process is a major source of concern. We must address this challenge.

The training developers need to have a clearinghouse for what’s good and what’s bad. One that has credibility with the troops so that they will use the guidance and proliferate the necessary agility and put an end to wasteful systems and “pet rocks.” But our current system is so unresponsive that Commander’s have little choice to work outside the system to get the training mission accomplished. The use of CALL today is a great first step, but it is just that, a first step that needs to be reinforced at every level.

We propose that training developers shift the focus of the schoolhouse from knowledge based instruction to

“Fighting a Hundred Battles®” in order to develop battlefield wisdom in our leaders across all echelons of leadership. A Gauntlet provides an approach to develop Battlefield Wisdom® employing tough, challenging, battle-focused simulations in constructive, virtual and live settings. Most of the battles fought in constructive, virtual and live simulation will be fought against a living, thinking enemy – other students. This interactive learning against a thinking enemy is the cornerstone to preparing adaptive leaders.

Where are our training incubators? I’m confident that our Battle Labs are working hard to bring develop ideas, but who moves them forward, especially training ideas? Our current resource system allows for minimal, if any, rapid, agile program development across the Army in the training domain. We have no means to execute (resources) even if we have the will. That must change. The training community needs a more responsive, short range pool of resources.

Change is occurring at an astounding rate in our services today and we must be ready with processes and products that support innovation to facilitate our agility on today’s and tomorrow’s battlefield.

There must be real change in our ability to respond to the warfighter. That means a better way to resource efforts quickly, streamlined approval processes and acquisition. Real process changes at the DoD and Services level will provide the venture capital to quickly respond to warfighter’s needs.

We need to seek a way ahead, some kind of process to institutionalize agile training using games and other tools to facilitate the innovation and creativity adaptability necessary for our future force.

How do we provide resources for innovation that will fund the future Gauntlets or similar programs to develop Battlefield Wisdom® with tough, challenging, battle-focused simulations in constructive, virtual and live settings?

How do we integrate the Joint, One Team into the “Fighting a Hundred Battles®” scheme to take advantage of all our warfighting capability?

These are tough challenges, but as stated many times before, we must adapt or die.

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