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Military Efforts to Meet Soldier's needs

H100 Argumentative Essay

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Abstract

Lean Six Sigma and Uniformed Army Scientists and Engineers (UAS&E) are engaged in the transformation efforts for the United States military. Lean Six Sigma is leading the way in the transformation efforts. Transformation is prominent in all aspects of the modern Army and change will happen. Lean Six Sigma's mission is taking care of the Soldiers ensuring that the Soldiers' are better prepared for their missions. Policies which were enacted in order to effect this transformation have proven that the transformation is going smoothly. The researchers are getting better at predicting the Soldiers' needs by the intense studies and preparation for future challenges

Military Efforts to Meet Soldiers Needs

Transformation is prominent in all aspects of the modern Army and change will happen. The following essay compares the way Lean Six Sigma is leading the Army in the transformation process while the Uniformed Army Scientists and Engineers (UAS&E) transformation efforts are not engaged half as much. Without Lean Six Sigma, Army transformation would not be successful. This analysis will identify key factors which led to the transformation as well as, policies which were enacted in order to effect this transformation. A discussion of the leading forces which shaped these policies for the success of the transformation is offered followed by an assessment of the desired effects of the transformation compared to the actual outcomes. Finally, the paper will synthesize the insights gained by this study; resulting in preparation recommendations for Soldiers as they prepare for future challenges.

When we look at how the logistics was done during WWII, that time frame was much more difficult to transport supplies, equipment, and personnel. During one of the battles, the United States had to destroy the German U-boats in order to transport supplies across the Atlantic. This way of transport was very slow and did not always make it in time or exactly how they requested. With modern technology, the time has been minimized and much more efficient.

Lean Six Sigma Background

Lean Six Sigma is an Army business transformation effort which was implemented Army-wide in 2006, after successful trial runs in different testing areas throughout the United States. The goal of this effort was to provide equipment to Soldiers more quickly by freeing up resources for the operational Army by executing "business transformation principles of Lean Six Sigma" (LSS) Army-wide (Alford & Shoop, 2002). In order for LSS to be effective both Army

leaders and workers must embrace the transformation principle. Specific goals of Lean Six Sigma include:

1. Remove any wasteful activities which add no value; thus achieving total customer satisfaction and an "improved operational effectiveness and efficiency".
2. Increase first pass yields while decreasing defects and cycle time
3. Develop a common set of tools and techniques which would improve communication and teamwork.
4. Meet goals of producing better products and services as well as delivering them at a faster pace and lower cost by developing leaders in breakthrough technologies.

LSS requires behavioral change such as thinking and working differently, the use of data to formulate decisions and using new principles, tools and methodologies (Resources, 2006).

Uniformed Army Scientists and Engineers (UAS&E) Background

Uniformed Army Scientists and Engineers (UAS&E) is a proposed officer career path which its creation had been approved in principle by the Chief of Staff of the Army General Eric K. Shinseki in 2002. As of 2003, the military was taking positive steps towards this transformation which improves the speed in which Soldiers receive new technologies. According to Alford and Shoop (2002),

> The Army is currently undertaking sweeping changes in its force structure, transforming into a more strategically responsive, full-spectrum force that is a lighter, more lethal, and network-centric force that achieves these increased capabilities by leveraging advanced technology innovation (Resources, 2006).

The Officer Personnel Management System (OPMS III), "…provides the mechanism to allow specialization within career fields…" and officer technological career progression (Resources, 2006). Such specializations include: (a)Army Operations, (b)Operational Support, (c)Information Operations, (d)Institutional Support (Alford & Shoop, 2002).

The Need. The Army felt LSS was necessary due to the long-standing wait times between ordering equipment and the delivery time to the troops. The components of LSS are not new. Both methodologies have been evident since before the 1980s, The concept of Lean came from the Toyota production system and Sigma Six originated from Motorola in the 1970s to "improve quality and effectiveness through statistical control" (Reese, 2006). By definition, Lean is speed and efficiency and Six Sigma is precision and accuracy which lead to "data driven decisions" (Reese, 2006).

While the two methods have had positive results individually, there are issues which each cannot resolve or improve individually. Six Sigma will not answer questions as to how to optimize process flow but it does eliminate defects. Lean principles also have a key weakness, advanced statistical tools needed to achieve the developmental capabilities in order for the meaning of "lean" are excluded. Together however, Lean Six Sigma has the possibility to talk about all types of course of action when the principles are used as one.

Departments across the country are benefiting from LSS; both military and non-military alike. In the U.S. military, a DOD-specific LSS course has been developed by the Defense Acquisition University to teach the application of LSS methodology and LSS certification. Five hundred DOD employees will be trained as LSS green or black belts through DUA in 2008.

Much like martial arts, the military provides belts as signs of achievement in LSS training. Employees who have completed one project using LSS methodology earn a green belt and those who have completed two projects receive a black belt.

As with LSS, the need for UAS&E is strong; the military has been faced with the need for getting new and updated technology into the hands of Soldiers. Unlike LSS however, UAS&E has not had as much documented success.

Policies. LSS policy requires the elimination of waste and a multi-level support system must be in place in any LSS project. All projects listed under LSS status have rigorous guidelines that must be kept.

UAS&E has not been implemented Army-wide. LSS once again has proven they are more valuable and LSS is less structured but has a better productivity ratio. If Army-wide implementation should occur, many changes would take effect. The UAS&E functional area would dedicate a substantial number of Army engineers and scientists to current and future transformations, technological evolutions and transformations. While not an entire list of disciplines, the following are the most common: (a)Aeronautical Engineering, (b)Applied Mathematics, (c)Chemistry & Biochemistry, (d), Computer Science & Physics, (e)Electrical & Mechanical Engineering (Alford & Shoop, 2002).

At least one-hundred officers, majors through colonel, with a masters degree or higher in various science and engineering disciplines will be a part of the functional area known as UAS&E and will provide input in key advisory positions within the Army and Department of Defense (DOD), such as; DOD laboratories, Research and Development (RDE) Command, Army and Joint Staff, and other key positions within DOD.

The proposed principles of UAS&E as of 2002 stated that qualified Army officers will join the functional area when they reach their seventh year of active-duty. Both UAS&E and non-UAS&E officers will be assessed in their functional area at this time (Alford & Shoop, 2002).

Leading Forces. Army Material Command and the Business Transformation Agency have both been the leaders in the LSS effort. Lean was first employed by AMC in 2002 to enable transformation and as a tool to assist in winning the of Global War on Terrorism. Lean was then

combined with Six Sigma in 2004 and a training program was developed to teach the Army workforce in Lean Six Sigma principles. This program involves Green Belt, Black Belt, and Master Black Belt programs. The trained individuals then mentor others under their command. As of 2006, two-hundred people have been trained.

One of the leaders in creating a viable career track for uniformed Army engineers and scientists (UAS&E) is General Paul Kern, commanding General of the Army Material Command. It is Kern's belief that "there is a tremendous capability when you have the operational experience of an officer and the technical training that allows a person to see what is in the future" (Alford & Shoop, 2002). Such transformation demanded that changes be made to the Army officer personnel system which would allow for a core population of officers to focus on science and technology as they pertain to the shaping of "the modern battlefield and the Army force structure" (Alford & Shoop, 2002).

Assessment. Previous to its Army-wide implementation, the areas chosen as testing grounds demonstrated successful results. In fiscal year 2005, with the use of LLS, Army Material Command had a total savings and cost avoidance of 110 million dollars. One such command post, Letterkenny Army Depot in Pennsylvania, had shown tremendous success with a cost reduction of 11.9 million dollars in "Patriot air defense missile system recapitalization" (Alford & Shoop, 2002). Pine Bluff Arsenal in Arkansas had a ninety percent reduction in repair recycle time and a fifty percent increase in M-40 protective mask production with the application of LSS principles. Red River Army Depot was another testing ground for LSS which demonstrated positive results; it demonstrated a 220 percent increase of vehicle inspection output and repair.

Besides tremendous savings and improvement of productions, LSS has had a positive effect on Soldiers fighting over seas; they are receiving new and repaired equipment faster. As of

2006, 1400 Army leaders have been trained in LSS principles and applications and trained to teach others in LSS implementation. In order for optimal success to be achieved, the improvement of speed, quality and cost, collaboration between management and technicians must be achieved.

Soldiers have already begun to benefit from the LSS methods. In 2004 it took Red River Army Depot in Texas, a week to turn out three HUMMVs; today it takes one day to produce thirty-two mission-ready HUMMVs. LSS has also shortened the length of time between recruitment and application process, as well as reduced deployment preparation time from thirty days to three. At Corpus Christi Army Depot in Texas, the time it took to rebuild the UH-60 Blackhawk was reduced from 256 days to an average of 70 with the use of LSS.

According to Alford and Shoop (2002) there are many advantages to creating and supporting the UAS&E functional area. Some of these advantages include the following:

1. The Army can ensure that the maximum advantage can be gained from the new system and equipment by supporting a core group of technically and tactically proficient officers.
2. Full potential of the transformed force can be achieved by implementing UAS&E through the "correct employment of advanced war fighting systems and technologies" (Alford & Shoop, 2002).
3. Resistance to change can be reduced and decision-makers will be more knowledgeable of the benefits of properly applied technologies due to the use of science advisors to senior-level commanders.
4. "It provides the Army with a set of honest brokers" (Alford & Shoop, 2002).
5. Could change the Army's perceptions of technically oriented service.

As of 2003, UAS&E supports the efforts of AMC Field Assistance Science and Technology (FAST) activity as well as provid "science and engineering support to selected commands" (Schoomaker & Brownlee, 2003).

Some would argue that UAS&E are doing more for the transformation of the Army than Lean Six Sigma because of the military background along with the lessons learned. USA&E can help the transformed force achieve its full potential by the usage of advanced war fighting systems and technology. This will also be accomplished by changing the perceptions of how the transformation will be done.

Conclusion

It was evident throughout the research of LSS and UAS&E efforts that LSS has been the more successful of the two. While both efforts aim at assisting Soldiers with quicker response times, only LSS has a proven track record. Due to LSS success, Soldiers are receiving much needed equipment in half the time as before LSS was implemented. It is difficult to say what the potential success of UAS&E will be; it is obvious that technology is an increasingly important weapon on the battlefield. The military has many plans for UAS&E, which in the long-run will improve the odds of success in battle; as well as improve the likelihood of more Soldiers coming home. Soldiers, due to both these military efforts, will also have a more solid and well planned career path and options for their future.

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