Future Leader:
The Journey of Developing (and Nurturing) Adaptability, The Future Is Now

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How to Create Adaptive Leaders

How to teach-facilitate-mentor

Handbook
For

Instruction of Adaptive Leaders

[3rd Draft]

Originally written by

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The views expressed in this handbook are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. This report is not cleared for public release; distribution is limited.

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ABSTRACT

Decision-making is central to the United States Army leader. The essence of effective leadership is to make and communicate sound decisions. It is essential for the Army to produce leaders that can make effective decisions in a timely manner by using naturalistic decision-making processes such as Recognition Primed Decision-making (RPD) instead of the timely analytical method of the Military Decision-Making Process (MDMP). The MDMP represents the old leader paradigm centered on task-centric proficiency. Future leaders need to become adaptive because of mastering RPD. However, this type of decision-making requires a substantial investment in time for the decision-maker to accumulate an adequate base of knowledge to utilize.

The handbook addresses how to educate adaptability as part of a new leader paradigm. This occurs at the beginning of an officer's career. It provides a framework for a model for this foundation called The Adaptive Leader's Course (ALC). Students that attend this course become more proficient in decision-making before assuming key positions such as platoon leader and company commander. The current operational environment requires adaptable, flexible, and resilient leaders capable of effective decision-making. The ideas presented are a start point for further study for producing the knowledge that future leaders needs on today's field of operation.

ABOUT THE AUTHORS

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Why an Adaptive Leader's Course?

Warfare is a clash between complex adaptive systems. While doctrinal publications are turning away from the linear Newtonian view and instead begin to use new science metaphors to describe the methods and conduct of war, the Army's training and education approaches are stuck in the Industrial age.

The methods of waging warfare are changing on these modem complex battlefields. The fundamental nature of warfare has not changed, but changes in the methods and conduct of warfare appear to be shifting. A new future vision of warfare appeared this past decade in a number of books, professional journals and presentations. The possible emergence of a new way of warfare sparked interest in the changing trends of the modern world and their implications on the future of warfare. Emphasis in the past has always been towards large, identifiable foes with professional standing armies, all organized along Newtonian lines.

Asymmetric Warfare (AW) reorients the Army toward a new kind of threat, similar to our opponents in the war on terrorism. This reorientation identifies capabilities and characteristics optimal in an Army faced with the task of operating against new methods of waging war and multiple hybrid opponents of the modern environment equipped with both shelf and off the shelf technology. AW levels the playing field for many opponents without a great expenditure of resources.

The Army Training Revolution that occurred after the Vietnam War made the U.S. Army into the premier training organization. Training and Education in the Cold War Army became synonymous. Yet, this was fine because the Army largely knew what it was training for and where and on what terrain it would likely fight. Since the end of the Cold War, war has evolved further, while the Army's doctrine on Leader development has largely changed.

The forces that fight war and war itself resemble the complex adaptive systems theory. An understanding of this would provide solutions for improved success in how the Army screens for, develops and nurtures its leaders. Complexity science of complexity provides more than answers to old the questions. It brings a new set of questions pertaining to how we educate and train leaders.

AW suggests that as nation-states shift from the old Westphalia model to some newer derivation, the Army will encounter increasingly chaotic forms of opposition. The result of this shift will be the requirement to wage war effectively against emerging non-state actors employing new methods for which the current Army must adapt to overcome. The Army will better prepare its current and future leaders for this evolving type of warfare by understanding that adaptability is going to require a new paradigm in leader development and training doctrines.

Scope: This handbook discusses the "how-to" teach inspiring leaders how to be adaptive. It also includes discussion on the main tool used in this approach, the development and use of scenarios to improve decision making and military thinking.

Upon completion of the hand book today's Army leaders—officer and NCO—should be able to understand the problem that lies before them. There is extensive preparation to facilitate and evaluate scenarios to evolve their cadets or Soldiers toward adaptability. It is not going to be easy, but the reward—a pupil or subordinate that understands adaptability and can actually demonstrate it with complex problems—is great. In this handbook, the scenario, and one of many ways it is employed, is the centerpiece on how to develop adaptability. Its use includes the classroom exercises as a seminar, or in the extreme of complexity, force-on-force. free play scenarios.

Purpose: To provide guidelines to instructors and facilitators who want to develop their cadets, Soldiers or students into adaptive leaders. With intense study and practice they should be able to expand the decision-making capabilities and capacities of their cadets, Soldiers or students to adapt. The ROTC program at Georgetown University went from 157th to the top five percent using these methods. We want to share them with not only ROTC instructors, but all professionals in the Army.

Objectives: The objective of this handbook is to expose you to a new paradigm in leader and soldier development. After completing this hand book, you will still not be ready to be an instructor of inspiring adaptive leaders. You will only realize there is much work ahead of you. This handbook provides guidelines developed from the success of this approach used at Georgetown Army ROTC school years 2000-2005 in developing adaptability in its cadets. It also examined other periods and armies in time that successfully developed adaptability in its leaders.

After reading this book, you will have a better understanding of,

- Today's Army Leader Paradigm
- What is Decision Making and a Decision
- What is Adaptability
- Two Methods Decision Making
- A New Leader Paradigm
- An Adaptive Leader's Course
- Scenario-based education

To be ready for your students, you must practice what is in this handbook with other groups of aspiring instructors. Someone you feel understands adaptability must also critique you. Once you and your peers feel confident, then you are not done. Teaching adaptability is also experimenting with your students. The entire process is evolutionary. It never ends.

Therefore, if you think you can go into an Adaptive Leader's Course (ALC), qualify for it, and then rest on your laurels, then you better find somewhere else to go because the learning process for teacher and student never ends at an ALC.

However, the awards are worth the work.

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I. Introduction:

"The Army' focus on the Newtonian linear training process and analytical decision-making in its Leader Development leaves future leaders ill prepared for leading in the real world that keeps evolving faster than they can develop formal curriculums for."

Major Donald E. Vandergriff
"Letter to Major General Alan Thrasher, Commanding General, U.S. Army Cadet Command, January 17, 2005"

The Army is facing a new and dangerous world that involves the evolution of war into areas that the Army and its leaders have not had to worry about in the past. Solutions of yesteryear revolved around technological responses employed by an Army shaped by industrial personnel system ("smothering them with resources" while war was seen by personnel managers as an inconvenience or disruption to their process).

Unfortunately, for the Army and the nation, this type of organization and leaders will not solve the complex problems of the future. The Army's attrition approach may even make them worse. There is an ability to win the tactical fight but lose the strategic one. Creating adaptive leaders and then nurturing them is the key to the Army's success in the future.

Sergeant First Class Jeff Roper and I understand that this "is easier said than done." We were at it for almost five years. That is why we took notes, and then translated them here for our fellow Soldiers, leaders, and teachers.

The Army must move from an industrial approach in its professional education and training of its leaders to one that deals with the complexity of warfare.

The first step is a change of mindset.

Army leaders must accept change as an evolutionary process of infusing well thought out, tried, yet sometimes-revolutionary ideas. Today this is called a "Learning Organization." Instead of viewing change as criticism, Army leaders must take the approach that while those legacies of the past, such as the current Army Leader and Training doctrine, were successful for what they were designed and implemented for, they have a diminishing role at problem solving in the world of today and especially in the future.

There is a better way. There is a solution! Begin earlier with change!

The solution to the problem of developing the right leaders is evolving the Army's education system alongside the changing face of war, which calls for a different Army leader mindset.

We say after five years, "why not begin the reform where it all begins?" If leaders in the Department of Defense, the Army, in Congress and smart people in the think-tanks really want to "Transform" the force, then they should start with the next generation of potential leaders as they enter the force as cadets.

Of course one of their first responses will be "how much will it cost?" And, "what are the political costs?" Our answer is that our recommended journey will cost less than the approach of today to prepare the next generation of leaders for the complex challenges the Army and nation faces today and in the future. The hard part of our recommendation is how to find, select, and then develop a cadre of instructors that can teach and develop adaptability in aspiring leaders?

In the handbook, we will explain the reasons for change and our suggestions on how to create adaptive leaders. Our proposals specifically aim at how to teach adaptability and within what type of environment (known as "command climate"). We will refer to it from now on as a "Learning Organization."

II. Decision Making and Adaptability

"Everyone talks and wants adaptability and innovation until it rocks the boat"[1]

Franklin C. Spinney

The Army uses these phrases and words all the time, and its leaders read about and actually can talk about it? The Army claims that its people are doing it as we speak.

Then, many will respond, "What is the problem?"

While the Army talks a lot about adaptability, in reality the culture develops confirmatory, especially in the way it develops leaders—today's leader paradigm is a combination of education, training, but more specifically how it promotes and selects. The latter two have the biggest impact in the shaping of leaders, or performers in today's Army.

This is not a criticism at all of today's leaders and Soldiers. Today's leader development paradigm does establish a solid grounding in analytical decision-making. This process unfortunately dominates the curriculum of most leader-centric courses. While the objective is creating leaders who can make sound decisions, today and future operating environment demand something different. This chapter defines key terms required to develop Adaptability. They consist of decision-making, decisions, two decision making model, and then it explains Adaptability.

Leaders make decisions.

Decision-making is central to the United States Army leader. An Army leader who is incapable of making a timely decision or uses poor judgment in his choices is a leader who puts his mission and soldiers in jeopardy. The essence of effective leadership is to make and communicate sound decisions. Effective leaders apply analysis and synthesis as required by the situation rather than applying templates to problem solving. The requirement for leaders to make and communicate sound decisions is not new to the Army. The Army has focused with great success on developing effective combat leaders.

The Future Force will require leaders to make decisions in a full spectrum of differing types of operations. War embraces the full spectrum.[2] However, the Army has not

[1] Made in reference to the use of adaptability on numerous Army briefings in the spring of 2005.
[2] US Army Training and Doctrine Command. FM 3-0, Operations (Washington DC: Department of the Army, 2001), 1-15. FM 3-0 defines full spectrum operations as operations across the spectrum of conflict. They include offensive, defensive, stability, and support operations in any environment and in any combination. The spectrum of conflict can range from fighting and winning wars, to deterring war and resolving conflict, to promoting peace.

traditionally prepared its leaders to conduct this type of operation until an impending mission requires it. Most Army leader-centric courses and institutions concentrate on preparation for execution of close combat. Doctrinal guidance to the directors of these courses is to focus time and resources on training combat tasks unless directed otherwise.

Based upon emerging diverse threats and emerging mission requirements deviation from this may be required but this diversion of focus to non-combat related tasks is to be temporary in nature and done only when preparing for anticipated missions. The reality is that it is not possible to anticipate many of these missions. Nevertheless, many leaders have adapted. They had too. Our concern is with how many have not adapted, or did not have the preparation to make sound decisions in a rapidly changing environment? We wrote this manual to help those in the Army who deal with leadership to show them how to teach decision-making and develop Adaptability.

How do leaders make decisions?

A decision is a point in time where reasonable options exist to execute a task in more than one way. The Army has produced decision-making tools that include the Military Decision-Making Process that have stood the test of time. However, comparison of multiple courses of action does not have to occur for a decision because a single acceptable course of action may stand out to the decision maker.[3]

Decisions have certain taxonomy. The term Coup d'oeil, as used by Clausewitz, implies two types of decision that a leader must have proficiency. Coup d'oeil refers to "any sound decision taken in the midst of action … [through] the quick recognition of a truth that a mind would ordinarily miss or perceive only after long study and reflection."[4]

The first type of decision that Clausewitz expressly describes in coup d'oeil is a decision conducted under stress. For Clausewitz: stress equates to time. A decision under stress occurs when the decision maker must make the decision now ('midst of action') with what he knows ('quick recognition of the truth'). He must use the information, knowledge and experience that he already has to arrive at his decision.

Clausewitz hints at the second type of decision in his definition of Coup d'oeil when he specifically references the time to "perceive only after long study and reflection." This is a decision made with no major time constraint or, in other words, without stress. This type of decision allows the decision-maker the time and ability to ponder and reflect upon multiple solutions to the problem and weigh the potential effects. Because time is available, the decision-maker can gather additional information and draw from the skills and experiences of other people to arrive at his final decision. The ability to make stressed decisions separates the true expert of execution from those who are proficient only with time and research.

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[3] Gary Klein, Sources of Power: How People Make Decisions (Massachusetts Institute of Technology, 1998), 16.
[4] Carl von Clausewitz, On War, 102.

Clausewitz's definition of Coup d'oeil provided for decisions under stress and decisions not under stress. His definitions use time as a delineator between the two decision types. However, Clausewitz did not address the element of risk. When the element of risk combines with the element of time, decisions actually fall into four categories based upon low to high risk and low to high time (Table IV-1).

Risk State: **High**	A stressed decision that relies upon current knowledge and experience •Stressed •Experience Based (Enemy force surprises you by approaching from a different direction than the one your squad was preparing to ambush and they are within small arms range, and is this the same force you had planned to ambush?)	A stressed decision that relies upon current knowledge and experience but allows the decision-maker to use knowledge and experience from outside sources and there are consequences to the decision •Analysis Based •Low Stress (Plan an ambush next week against a competent and unpredictable enemy, but you possess good and reliable intelligence)
Risk State: **Low**	An unstressed decision that relies upon current knowledge and experience •Experience based •Unstressed (Recon-both ground and UAV-identify an Enemy force approaching from a different direction than the one you had planned to ambush, but you have time to adjust your plan, and you also retain good observation everywhere else)	An unstressed decision that allows the decision-maker to get the necessary knowledge and experience to make the decision but the consequences of the decision is minimal •Analytical Based •Unstressed (Plan an ambush next week against a poor and predictable enemy, and you have good intelligence)
	Time: **Low**	Time: **High**

Table IV-1 Decisions and Risk

A critical aspect of battle command is to know which decisions belong in each of the four categories allowing the decision-maker to execute the most effective, timely decisions possible. FM 3-0, Operations, states that "effective decision-making combines judgment with information as an element of combat power: it requires knowing, if to decide, when to decide, and what to decide."[5]

In effect, the decision-maker must categorize his decisions knowing which decisions he must act upon now with what he knows and which can wait until later. It is the low-time, high-risk decisions that Clausewitz addressed with the term Coup d'oeil. Military leaders must prepare themselves for this the decision category that no matter where the operation falls within the full spectrum of military operations.

[5] US Army Training and Doctrine Command, FM 3-0, Operations, 5-2.

Two Ways to Decide

The Military Decision-Making Process (MDMP) is often the first notion that enters the mind of a soldier during a discussion of the topic of decision-making. The MDMP is a very good example of an analytical decision making process. The analytical model is the first of the two primary decision-making models. Analytical methods such as the MDMP are formal problem solving techniques. The decision maker uses an analytical decision-making process to reach logical decisions based upon a thorough analysis of the mission and situation. The MDMP as well as other analytical decision-making models use the same basic problem solving methodology.

The second type of decision-making model is naturalistic or heuristic model. Experience has much to do with this method of decision-making. There are three key steps inherent in heuristic decision-making: experience the situation in a changing context, recognize the pattern of the problem from personal knowledge and experience, and implement a solution. Although this is a commonly used decision-making approach, heuristic/naturalistic models for decision-making have only recently come into prominence in the literature.

The point is that the Army has to do more than just put the word "adaptive" and "leader" on power point slides or highlight it in official literature. There is a lot to do to create adaptive leaders, and it begins with the education and training of the Army's cadets. Cultural change is a long-term evolutionary process. Nevertheless, the spark starts at the beginning of our leader's careers. In addition, before they enter the adaptive leader's course, the cadre has to know how to teach it, which is a lot harder to do than in a course that uses the industrial approach.

Finally, what is adaptability?[6]

- Refers to the process of adjusting practices, processes, and systems to projected or actual changes of environment, e.g., the climate or the enemy

- Includes the creation of innovative combined arms organizations, doctrine, systems, and training concepts as demanded by the environment, allies, and the enemy

- Solutions to complex problems in chaotic, unpredictable situations are based more on intuition than on analysis, deliberate planning, and doctrine.

How do leaders that understand adaptability decide, and how is it created and nurtured? There are seven key aspects of adaptability a leader-centric course must address.

[6] John Tillson, et al, "Dealing with Asymmetric Threats," (Alexandria, VA: Institute of Defense Analyses (IDA), June 2005), p. 5.

- **Rapid or Adaptive Decision Making Process:** The formally recognized naturalistic or heuristic model is simply called the "gut check" in the operating environment-must be built through a large amount of experience-learning

- **Using the OODA loop:** is a decision-making process that relies on experience to recognize key elements of a particular problem to arrive at an appropriate decision. The goal is to determine and implement the first solution that could result in success faster than your enemy

- **Time Criticality and Leadership:** In order to make decisions when time is critical, the decision maker places more emphasis on the intuitive decision-making process than the analytical decision-making process. Commanders and leaders more readily use

    - **Intuition** is to know something without apprehension or reasoning. In many cases, intuition is directly related to lesson learned through living

    - **Judgment** in intuitive decision making refers to the ability to fit the situation to the first possible solution that is most likely to succeed. Merely acting on the first solution that comes to mind does not require judgment

    - **Experience** is an aggregate or combination of what an individual has learned from the process of dealing with problems and making decisions in the course of an individual's career or life

    - **Pattern Matching** occurs when someone sees similar factors in a current situation compared to a previous one. The greater the experience that a decision maker has, the greater intuitive decision-making power of the individual. Pattern matching is often how Soldiers and leaders solve tactical problems and challenges in the operating environment.

III. Approaches to Leader Development

"Tactical leaders must consistently be more able than the enemy to convert the combat potential they have at hand into superior relative combat power under any circumstances. This depends in part on their ability to observe, orient, decide, direct, monitor execution, assess results and adjust their operations. Much of this demands intellectual preparation, practical experience, and knowledge of capabilities at their disposal."[7]

Brigadier General Huba Was de Czege (retired)
Remarks to Commandant of the Army
Command and Staff Collge, April 2005

Today's Leader Paradigm

The way of training leaders under the guise of the mobilization based leader paradigm evolved out the industrial age way of war and centered on the rote memorization of process, or what is today called the Military Decision Making Process (MDMP).[8]

MDMP evolved from a scientific way of organizing thoughts in the preparation and execution of missions. It goes so far as to tell commanders and their staffs that certain decisions should be made through events and time on a matrix. Additionally, MDMP evolved to represent how the U.S. Army prepares civilians to become officers. The Army's education system has centered on memorization of the process, or the "checklist approach," to war fighting.[9]

U.S. Army Major Eben Swift created the MDMP in 1897. At the time of the emergence of the philosophy of scientific management, based on the theories of Frederick Taylor, Swift's methods were seen as the basis for a professional military education. The source of his process has a twist of irony to it, however. Swift's approach was based on his examination of a French interpretation of a German book on tactical decision games by a Prussian officer named Verdy Du Vernois.

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[7] Tillson, "Dealing with Asymmetric Threats," p. 1.
[8] Much of the training in pre-commissioning courses, the Officer Basic Course, the Basic Noncommissioned Officer Course, the Officer Advanced Course, CAS3, the Advanced Noncommissioned Officer Course, the Command and General Staff College, the Sergeants Major Academy, and to a lesser degree the School for Advanced Military Studies all teach the MDMP as the core to decision-making and structure much of their course instruction around the process. Author's observation made through attendance to most of these school's and through discussion with people who attended the others.
[9] For more of the history behind this evolution and an understanding of why the U.S. Army went this way, see http://www.d-n-i. net/vandergriff/rha/index.htm; see also Vandergriff, Path to Victory: America's Army and the Revolution in Human Affairs, 2002.

In Du Vernois' system, most calculations and die rolling were eliminated in favor of an umpire who would determine results based on the situation and his own combat experience. War games had become a mainstay of German military training. Du Vernois proposed to eliminate the written rules and govern opponents by tactical rules that would become obvious during the course of the game.[10]

On the other hand, the French organized Du Vernois' book of tactical decision games by structuring the games and their presentation. Swift went even further, organizing the answers to the game into what we now call the five-paragraph operations order. It is important to note that, at the time, more U.S. officers spoke French than German. This made the adherence to French principles of war easier.[11]

Swift then institutionalized his game at the Army's Staff College at Fort Leavenworth. Over time, the Swift method evolved into our task, condition, and standard approach to task training, and our crawl-walk-run approach to education and training systems.

The Leavenworth methodology for teaching problem-solving skills has remained constant since the 1890s, when Swift introduced an educational technique known as the applicatory method, under which lecture, recitation, and memorization gave way to hands-on exercises in analytical problem solving, such as map exercises, war games, and staff rides—all designed to teach students how to think, not what to think. By the late 1930s, such exercises accounted for more than 70% of total curriculum hours. The applicatory method survives in the form of curriculums, practical exercises; terrain walks; staff rides; and the capstone exercise, Prairie Warrior, which relies heavily on computer simulation.[12]

The French Connection

Today's "crawl-walk-run" or "lecture-demonstration-practical application" system used in leader development curriculums is dramatic. This contrasting American approach was born out of necessity in World War I. The U.S. Army, arriving on the field of battle unprepared for large-scale war, followed the French military approach to education based on the philosophy of **René Descartes**.

DeCarte was a famous mathematician who broke down engineering problems in sequence, making it easier to teach formulas to engineering students. This approach was translated into French military training, where the French found it easy to break down

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[10] Du Vernois. (1877). J.T. Gatto, "The Prussian connection": The underground history of American education: An intimate investigation into the problem of modern schooling. (New York: New Society Publishers, 1991).

[11] Swift, E., Major, U.S. Army. (1906). *Field orders, messages,and reports*. Washington, DC: Government Printing Office Document UB283.A45. Also see Gitto.

[12] S.R. Stewart, "Leader development training assessmentof U.S. Army TRADOC brigade commanders," (Washington, DC: U.S. ARI Research Report 1454).

military problem solving into processes (checklists) to educate their officers and their awaiting masses of citizen soldiers upon mobilization.[13]

The Cartesian approach allowed the French (and later the United States) to easily teach a common, fundamental doctrinal language to many who were new to the military. It significantly reduced the time it took to master basic military skills. The downfall of this approach is that it simplifies war (complex problems) into processes where the enemy is only a template, not a free-thinking adversary with a very important voice in determining how the plan might be executed.

The Cartesian approach also slows down a decision cycle by turning the planners' focus inward on process instead of outward on the enemy. The problem with this approach is that it does not fit in with the problem at hand. It is the same thing with operations research, which is a powerful tool for solving certain well-defined problems. The problem that we have with or in the Armed Forces is that we try to apply it to all sorts of inappropriate problems.

The French, relying on a massed citizen army in the late 19th and early 20th centuries, had to find a way to instruct many citizen officers quickly in military doctrine. Additionally, because of the casualties of World War I and the advance of modern weaponry and its destructiveness, the French needed a way to teach its officers how to control these resources to concentrate firepower so they could compensate for their lack of unit skills on the battlefields. They used an orderly and systematic approach to planning that was similar to the MDMP.

When the United States arrived in Europe in 1917 with its new Army, led largely by citizens who had been transformed into officers almost overnight, soldiers needed to learn the fundamentals of the profession of arms quickly. All U.S staff officers and commanders attended French schools in planning and controlling forces in combat. The United States and France were the victors in World War I and saw that victory as a justification of their training process.

When the French developed methodical battle in the interwar years, the United States copied it with all its accompanying process-focused education. The U.S. Army carried this over to its education and training, as well as its doctrine.[14] The analytical approach to leader development supported the Nation's mobilization doctrine. For the Army it worked well for World War I & II.

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[13] Robert A. Doughty, *The Seeds of Disaster* (Hamden, CT: Archon, 1985), p. 3-7.

[14] Russel F. Weigley, "Elihu Root Reforms and the Progressive Era," in William Geffen, ed. *Command and Commanders in Modern Warfare* (Washington, D.C.: Office of Air Force History, 1971), p. 24. Jack C. Lane, "The Military Profession's Search for Identity," *Marine Corps Gazette* (Quantico, VA: Marine Corps Association, June 1973), p. 40. Samuel P. Hays, "Introduction" in Jerry Isrel, ed., *Building the Organizational Society* (New York: The Free Press, 1971), p. 3 & 10.

The MDMP

There are four basic steps in analytic models: define the problem and gather facts, develop possible problem solutions, decide on a solution, and implement the solution. This type of decision-making tool relies on producing multiple courses of action and then deciding upon the one that best accomplishes the mission or solves the problem. The use of a full analytical decision-making technique results in a detailed, deliberate, sequential, and time-consuming methodology.

The Army identifies three advantages in using the analytical approach of the MDMP for decision-making. The first is that it attempts to identify the best solution by using the formal comparison of multiple friendly and enemy courses of action. The second is that it produces a solution with a great deal of integration, coordination, and synchronization while minimizing the risk of overlooking a key aspect of the problem. Finally, it results in a detailed operations order or operations plan. The disadvantage is that it is a time-consuming process.

Specifically, MDMP decisionmaking offers advantages when:

- Time is not a factor – during pre-hostility contingency planning, for example
- Decision-makers lack the experience needed for sound intuitive judgments
- The problem poses so much computational complexity that intuitive processes are inadequate – detailed mobilization planning, for example.
- It is necessary to justify a decision to others or to resolve internal disagreements over which course to adopt
- Choosing from among several clearly defined and documented options such as in deciding from several equipment prototypes in the procurement process.

We are not suggesting that adaptability is always superior to MDMP. Each of the models has strengths and weaknesses. One of the keys to effective decision-making is appropriate to a given situation. There are circumstances in which the MDMP approach offers advantages. So clearly there are circumstances in which analysis helps. Having said that, however, the important point is that adaptability is far superior to MDMP decision-making. This is true in the vast majority of typically uncertain, fluid, and time-sensitive tactical situations that our leaders face today or will face in the future.

Diminished returns were observed during the Korean and Vietnam Wars. Yet, because the mobilization doctrine had influenced laws, regulations and policy for so long, the leader development paradigm became a cultural mindset. In the Army mind, the solution only needed a little “tweaking” now and then. Now, amidst, a new type of war, with new types of opponents, the time to change the leader paradigm is now.

"Give it a Try before Giving it a Name"

Due to reforms led by Gerhard Scharnhorst shortly after the destruction of the Prussian army at Jena in 1806, the Prussians searched for ways to develop officers who could make rapid decisions in the chaos of the battlefield. Prussia's military education of its officer cadets was based on an education approach developed by a Swiss educator, Johann Heinrich Pestalozzi.[15]

In the late 1700s, Pestalozzi developed his theory that students would learn faster on their own if allowed to "experience the thing before they tried to give it a name." More specifically, the Prussians used Pestalozzi's methods to educate leaders on how to identify the core of a problem and then deal with the centerpiece of the problem without "wasting time working their way to finding a solution"[16]

The new education system, along with other radical Scharnhorst reforms such as strenuous selections of officers from a broad base of the population, gave the Prussians what they sought—a professional officer and noncommissioned officer corps. In the center of Europe, surrounded by several potential enemies, the Prussians had to be able to mobilize rapidly. Their officers had to prepare hard in peacetime to be ready when war began.

From the very beginning of a Prussian (later German) cadet's career, decision games were used to sharpen the students' decision-making skills and to provide a basis for evaluating them on their character. Prussian cadets had to solve problems with many variables under different conditions and then explain their decisions to the instructor and class. The problems the cadet was given were complex and dealt with units three levels above his own (in the case of cadets, platoon = company, battalion, and regiments).

The instructors wanted to find out what the cadet would do when presented with a complex problem. They were not concerned with what the cadet had already learned, but with the cadet's willingness to present and solve the problem. These scenarios were timed. When time was up, the cadet presented his solution. Instructors and peers evaluated decision-making ability, not how tasks were accomplished.[17]

Decision games introduced the cadets to the unknown, with the result that cadets wanted to know more and asked questions. They also sought to answer for themselves what they did not know. In addition, the students were given orders that conflicted with the situation on the board and were forced to resolve the conflict between the two.

Another technique the Prussians used to teach decision making was to change the original situation or the orders while the cadet was preparing his solution to the initial

[15] B.I. Gudmundsson, personal email communication, December 16, 2004.

[16] See http://www.cals.ncsu.edu/agexed/aee501/pestalozzi.html.
[17] E. Morsy, editor, *Thinkers on education* (Paris: UNESCO Publishing, 1998).

problem. This forced the student to either challenge the original order because it was out of date or accept the old order and live with the consequences.

Most of the time, the TDG was also presented under limited time, creating even more stress. But it was when the cadet briefed his solution that the major part of the learning took place, not only for the cadet but for also for his peers. "It is not so much 'training' and 'pretraining.' That is to say, they serve to develop habits that are conducive to the use of all sorts of other methods, to include more elaborate simulations and field exercises, to study tactics"[18]

The cadet would have to present his proposed solution in front of his peers, instructors, and visiting officers. The great von Moltke, chief of the Prussian general staff from 1858 to 1888, frequently visited corps' district academies (where the Germans produced cadets) and would sit in on these games and even frequently oversee the instruction, present the situation, and then guide the discussion afterward.

The Prussians went beyond using TDGs to teach; they also used them in their evaluations. Weak performance on graded TDGs was grounds for failure on an exam or for expulsion from the academy. Signs of weak character were grounds for failing an exam, or worse, for a repeat offender, for expulsion from the course. The inability to make a decision or defend one's decision in the face of adversity was grounds for not being commissioned.

Short of performance on an actual battlefield, there were several measures that demonstrated what type of character the cadet possessed. If the cadet changed his original decision to go along with the instructor-recommended solution, he was seen as a failure, as having weak character. Weak character was also demonstrated if the cadet stayed with a poor or out-of-date decision from higher because that is what the instructor ("higher") told him to do. The worst thing a cadet could do was to make no decision at all.

A New (old) Way to Decide

A leader in the research and publication of heuristic/naturalistic decision-making is Gary Klein, a cognitive psychologist, chairman, and chief scientist of a think tank that specializes in the study of decision-making. Klein used leaders of firefighting organizations as his primary research pool. In his studies, Klein concluded that people did not use an analytical decision-making model when they made decisions in a time sensitive and stressful situation. Instead, they relied upon heuristic/naturalistic methods. Klein calls this approach mental simulation.[19]

Introduced earlier, Clausewitz called it "Coup d'oeil."

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[19] Gary Klein, Sources of Power: How People Make Decisions (Massachusetts Institute of Technology, 1998), 16.

From his research, Klein developed the Recognition Primed Decision-making process or RPD. In Recognition Primed Decision-making, people who must make decisions in time sensitive and stressful situations do not rely upon analytical analysis of the problem but instead rely upon personal knowledge and experience to quickly interpret a situation and immediately identify a reasonable response to it. Multiple courses of action are not required because the first course of action, although not necessarily the best, is feasible, acceptable, and suitable based upon recognition of a specific or an extrapolated pattern from the decision-makers knowledge and past experiences.

A summary of RPD demonstrates the advantages and disadvantages of this decision-making model. RPD decisions take less time because the decision-maker focuses on the sequential evaluation of courses of action until he finds a workable one. Evaluation of each course of action requires less time because instead of a formal analysis and comparison, the decision-maker imagines how it will work (a mental wargame).[20]

The decision also takes less time because the course of action used is usually the first one considered due to the decision-maker's recognition of a pattern based on his knowledge. The mental wargame allows the decision-maker to spot potential weaknesses in the course of action early in the decision-making process allowing adjustments to the course of action to make it stronger and more viable.

There are three main disadvantages of this process. The decision-maker requires a large pool of personal knowledge and experience and to make effective decisions in this manner. The analysis and decision on a course of action rests on one person and since the emphasis is on execution of the course of action, full integration, coordination, and synchronization occur after the fact. RPD is not a group or consensus method. Finally, although the solution is workable, it is probably not the optimal and depending on the experience level of the decision-maker may not even be one of the best solutions.

There is another way to look at how to decide while in the context of Adaptability.

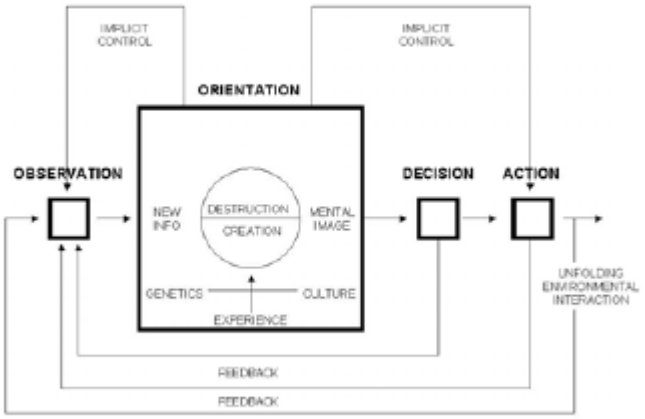
The OODA Loop

John R. Boyd demonstrated the power of making sound decisions in a timely manner in his theory of decision-making. Boyd contends that human behavior follows a specific decision-making cycle. The four steps of the cycle consist of **O**bservation, **O**rientation, **D**ecision, and **A**ction OODA loop. The side in a conflict that executes this decision-making process more rapidly and more effectively gains an advantage over his opponent because the opponent will constantly react to his actions. These continued reactions eventually result in poor decisions followed by paralysis of the entire opposition

[20] Gary Klein, Sources of Power: How People Make Decisions, 17.

decision-making process. The common expression of the successful execution of this procedure is getting inside the enemy's decision cycle.[21]

The critical step in the OODA is orientation. In this step analysis and synthesis of the observations occur. The process consists of taking many different disparate nuggets of data and information and translating them into a mental picture which the decision-maker can then use to make a decision. Boyd refers to this as "examining of the world from a number of perspectives so that we can generate mental images or impressions that correspond to the world."



III-1. Boyd's OODA Loop

The OODA loop gains its power from the ability of a leader to form mental constructs. Timeliness and accuracy of decisions and actions relate directly to the decision-maker's ability to orient and reorient to rapidly changing and uncertain situations. Personal experiences, education, and training (aka knowledge) empower the leader to form these mental constructs.

Boyd's theory emphasizes the importance of the ability of leaders to think. By-the-book answers to specific well known situations are not good enough. It is the ability to think that allows a leader to take the knowledge from personal experiences, education, and training and adapt it to the imperfect information of the present situation to arrive at a timely, sound, and workable solution to that situation.

Applying the OODA Loop faster than the opposition is the essence of situational or intuitive decision making. It is the means of quantifying a mental process into a mechanistic action that all Soldiers can understand and apply. Decision-making superiority is merely creating a tactical decision-making base in the operating environment.

[21] I have been very fortunate to have been mentored by many of the acolytes of John Boyd, particularly Mr. Franklin "Chuck" Spinney and Dr. Chester Richards. Also see,

A New Leader Paradigm

The contrast between the ***Pestalozzi*** approach and today's "crawl-walk-run" or "lecture-demonstration-practical application" system used in leader development curriculums is dramatic. This contrasting American approach was born out of necessity in World War I. The U.S. Army, arriving on the field of battle unprepared for large-scale war, followed the French approach based on the ***Descartes method***, which evolved into the MDMP analytical decision-making and merged with the Army's approach to leader development.

Both the analytical and the heuristic methods have an appropriate place in the world of decision-making. Analytical decision-making is strongest in situations that are unfamiliar to the decision-maker and/or there is sufficient time to apply a full, in-depth analysis to the problem to find the best answer to address it.[22]

Heuristic decision-making, as exemplified by the Recognition Primed Decision-making model, addresses situations where time is not available and a solution is required for immediate implementation. One is not necessarily better the other and the choice of which process or even a combination of processes to use should result from the situation presented to the decision-maker.

Of the two types of decision-making, the analytical process is easier to train the inexperienced to execute. The United States Army dedicates large amounts of training time in its professional schools to teach officers and noncommissioned officers the Military Decision- Making Process. The Military Decision-Making Process is a great equalizer. It affords a common method for solving problems and making decisions by individuals possessing knowledge and experience from the novice through the expert. Its use should produce optimal solutions to the problem or, at worst, produce plans that should not fail.

However, many of the decisions required on the field of battle or field of peace must be accomplished quickly under stressful conditions. In this environment, the RPD model of decision-making provides the best method of operation. However, an inexperienced and ignorant decision-maker probably will not make the most effective decisions using this model and will often produce plans that fail. The best RPD decision-makers possess a vast array of knowledge and experience from which to draw courses of action. The drawback is the amount of time required to acquire the requisite knowledge and experience to conduct effective decision-making in this manner.

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[22] Army doctrine (FM 22-100, Army Leadership, August 1999, 5-3 to 5-4) lists the two types of decision-making processes as Troop Leading Procedures followed at company and below level and the Military Decision-Making Process at battalion and above. Both are analytical. Paragraphs 5-16 and 5-25 go on to say that there is another decision-making method based upon using experience and intuition but that but that you "should not be fooled into relying on this because it may just hide a lack of competence or someone too lazy to do the homework needed for a reasoned, thought-out decision." In fact, the presence of competence in the profession of arms is what allows this decision-making to occur.

The decision-making method best suited for low-time/high-risk decisions is a naturalistic/heuristic method exemplified by the Recognition Primed Decision-making process. Quickness in the choice of a workable solution to a problem is the critical component. A key aspect of this decision-making method is pattern recognition. It requires a large personal database of knowledge for the decision-maker to be fully effective in identifying patterns in a situation and adapting an appropriate solution to it.

The implications of this are clear: the Army must start to develop intuitive decision-making skills among its leaders, and the earlier the better. It is also important to recognize that, while conceptually opposite, the two models are mutually exclusive in practice. It is possible, for example, to incorporate analytical elements as time permits into what is essentially an intuitive approach.

IV. A Learning Organization

"Facing the music—acknowledging what's not working—is the necessary first step towards climbing out of the pit in which so many organizations now find themselves, in order to build a creative and dynamic company capable of revitalizing itself."[23]

Peter Kline & Bernard Saunders
Ten Steps To A Learning Organization

Today the Army is untouchable at how it trains its Soldiers and Leaders to accomplish tasks. Commonly referred to as "task proficiency," its approach has worked well in the past on how to train its leaders and Soldiers for battle. At one time, the Army's training doctrine was the right method for preparing mobilized millions for war. Since the period for which the mobilization doctrine delivered an Army the nation needed, war has evolved in scope and how our opponents fight it, as well as the type of opponents we may and do face.

The Army is evolving as well to becoming a Future Force with joint and expeditionary capabilities, so doesn't the leader paradigm change as well?

Based on the expeditionary paradigm, the Army no longer has the benefit of a leader paradigm focused a peacetime individual centric career patterns then transition training to a combat focus when the need arises. Leaders must arrive immediately capable of conducting simultaneous, distributed operations. All leaders must be prepared to operate in all environments with a greatly expanded range of operations and skill to some minimum standard.

The minimum standard of preparation that results in successful Army operations is adaptability in its leaders. The naturalistic decision-making method of Recognition Primed Decision-making is a critical skill for staying ahead of a protagonist and to anticipating and recognizing events and situations and making decisions that are of a high risk/low time nature. RPD decision-making requires an appropriate broad base of knowledge for adaptability.

Evolving to an Adaptive Leader's Course

To solve our problem, we conducted a thorough study of history, a detailed analysis of present and future environments so we could predict what the Army would call for officers to do in the future. Defining the end state made it possible to put to practice (by trial and error or experimentation) concepts that will build adaptability and intuition in cadets before they go on as commissioned officers to lead Soldiers.

[23] Peter Kline & Bernard Saunders, Ten Steps To A Learning Organization, (Arlington, VA: Great Ocean Publishers, 1993), p. 24.

SFC Roper and I (as well as other instructors-we must thank Lieutenant Colonel Mary McCullough and Lieutenant Colonel Allen Gill for their encouragement of our methods) at the Department of Military Science at Georgetown University cast away the industrial focused curriculum of cadet command and applied our own based on how to adapt when dealing with complexity. The approach evolved through teamwork synergy.

Complimentary Teaching Team

One of the common myths about the ALC is that it is officer-centric, that Non-commissioned officers (NCOs) are task-centric. This is not true. Some of the finest teachers of adaptability were NCOs, like Master Sergeant William Lewis, Master Sergeant Rob Frye, and fortunately, for the Army, many others sprinkled among the various ROTC battalions I worked with over six years.

Of course, some people cannot teach, but still have roles. We had our own cadre—both officer and NCO—as well as cadre from other battalions, that were still competent Soldiers, but were not good teachers. A Learning Organization finds a place for everyone to play a role in order to succeed. Some officers and NCOs were very good task-trainers. Others were good administrators, or logistics planners and executors. All were essential to the organization, to free the teachers to do the core mission, develop adaptability.

With regard to the team I had for three years, I would theorize study and suggest, and SFC Roper would bring it (and me) into reality. Then we would plan, get with other cadre to "task organize." Finally, we would go out and execute. The process of learning and preparing for our students did not end there.

Then, with input from other cadre, the results of watching the progression of the cadets (along with their feedback) we would go back and try it again with what SFC Roper called some "tweaking."

We would then repeat this approach throughout.

We also kept attuned weekly to what was going on in different battlefields and the lessons they provided.

Finally, we did this within a command environment that allowed for learning and experimenting as long as a few principles were adhered too.

"Principle-based curriculum"—always evolving.

Cadets and Student leaders develop adaptability through the repetitive use of "scenario based training" using several tools. This based on several sources (listed at the end of this book). We developed four principles that guided our development of

adaptability. Each principle has a number of lessons learned (see section below "***Principles of an ALC as a Learning Organization?")***.

The result has produced some good adaptive leaders for the Army. Sources also came from feedback from many young officers that served in both Afghanistan and Iraq, as well as trained at the Army's Training Centers.

They told us that our approach was the main reason that they were prepared for the leadership challenges that awaited them.

The curriculum always evolved around a Complexity POI

We put into practice and evolved many ideas on how to better educate and train cadets at Georgetown Army ROTC using our mental resources, that in turn took the limited resources we actually had, and made the most out of them. Resources or a lack there of, did not seem to impede our success.

Our Program of Instruction (POI), and supporting curriculums evolved adhering to the four principles mentioned below.

We found to teach something so complex that everything to "enable" adaptability had to remain as simple as possible. The systems supporting it, from the plain evaluation cards we used, to keeping logistics from taking our time away (many times opting for using "rubber duck" or fake M16s in place of real weapons) had to remain as simple as possible.

The cadre could focus on the development of adaptability over time or "evolutionary adaptability" based on numerous observations of students involved in several different scenarios under different conditions.

So, if the cadre plan to use real M16A2s with blanks and MILEs, without taking into account the time to sign for, pick up, travel time, issuing and then zeroing, little or no enabling of adaptability may take place. There is a value in using this equipment, especially in a free play force on force scenario, but it has to be balanced with the development of adaptability. There are some things though, that have to be done, where evolutionary adaptability is subordinate to the task mission.

The planning, preparation and execution of the M16A2 range is a good example of a task centric problem that easily tips the scale. We all agree it is essential for "warrior leaders" to be proficient with their small arms. The students like to shot. The basics of marksmanship must be taught, and ranges ran safely. But, the task does not have to be cadre centric either. There is room to enable adaptability. It takes planning and open minds to find that balance.

We did all of this without raising the budget of the program, or adding to our personnel with outside contractors, or with the luxury of hand picking the instructors. Yet, we still had to spend a lot of time in constant preparation from developing new scenarios, evolving old ones, to walking through and conducting teacher-reconnaissance of new training opportunities.

We did it entirely with the cadre the Army gave us through its personnel assignment system. (We did bring in outside "experts" in the form of speakers and observers).

We also found out students from an "elite university" were not the biggest reason for our success. Sure, this helps, but we found out that the ability to adapt, to make decisions under pressure, and then believe in them cannot be measured solely by intelligence tests, or in the classroom.[24]

Any College or University student can take in adaptability, and acquire an ability to make sound, rapid decisions as long as,

- The cadre knows how to teach it by adhering to four principles
- The cadet has the drive, motivation and desire to work and study hard to become adaptive
- The chain of command understands and creates a learning organization to sustain the first two, one of its main tasks if the free the teachers of the cadre from the rigors of daily administration which a statistics driven Army depends upon[25]

Principles of an ALC as a Learning Organization?

First, we demanded that new cadre that came into the program erase their memory of how they were "certified" to teach, or how they thought one should teach. "Come in with an open mind, and be prepared to be shocked," we would warn them. Instructors of the adaptive leader's course, today's Army NCOs and Officers should adhere to a four principles (supported by a lot of "sub-principles") that we developed over time:

1. **The adaptive leader's course must be supported by a "Learning Organization", which**,

[24] I stopped counting the number of times people liked to use the excuse "But, you were at Georgetown University and had the cadets that could do that…."as a reason not to try to evolve their programs into ALCs.

[25] We refer to all members of the faculty of a "battalion" as cadre. In a sense, they are all teachers, because they must first set the example, even though they may never step in front of a group of cadets formally. Then, there are the "teachers." Those cadre who are good at imparting information, motivating their cadets to learn more, and act as a role model in the development of leadership and adaptability.

a. Every moment of the day, every task, offers an opportunity to teach adaptability, how to think, in places you can never imagine

b. Place as much ownership for the program in the hands of the students, make them work for everything

    i. All year, the cadets, particularly the cadet officers (MS IVs) would complain that "all their time was taken by ROTC." When they reflected, on what they were able to accomplish and apply later, they would tell us, "it was worth it."

c. The trait or principle sought for the lesson should drive the education, not resources

d. Whenever possible, education and training must take place in the context of a team, be it two people or company operations

e. Hazing or demeaning techniques, such as yelling, called the "rabid dog approach" are not used. Instead instructors put pressure on students by

    i. Not saying be easy, but standing in front of an individual or group and "cussing them out" will cause automatic credibility deduction that will be hard to regain
    ii. Don't punish, unless you can do it too
    iii. Balance it with rewards
    iv. Use sarcasm

        1. Teaching simple things like time management offers an opportunity to use sarcasm
        2. "Oh, you were late because you knew you had to start your car early because of its bad battery, but you just knew this was the morning [of class] that you did not need to do that, just jump in it and get here in five minutes!"

    v. Reply with a question

        Cadet or Student: "Sir, what time was the SP tomorrow?"
        Teacher: "Where can you go and find that information, or who can you ask in your cadet chain of command?"

    vi. Use time,

        1. Shorten time, but don't make it impossible

2. For those who are impatient and great in the intense scenarios, a scenario with a lot of time will test the use of time by the leaders in the preparation of their units

vii. Type of scenario

1. Determine this as much as possible based on an examination of the student leader
2. Also, how the scenario is delivered, what tool, is important

viii. Changing conditions

1. "Change of mission"
2. Weather is a factor
3. So is terrain
4. But remain realistic
5. Such as suddenly putting a good leader in charge of an entire new group of students for a mission
6. What appears to be a straightforward mission, such as assault a bunker with a squad, and infusing a non-combat scenario to it? This works well when you have leaders that are good at the combat aspect, but want to ignore or become to "cocky"

ix. Varying resources

1. Take away ammo
2. Take away people that the student had planned to use
3. Or, even add too much, may slow what is really needed to solve particular problems (again see how the student-leader handles the situation; we once added a couple of vans, and saw the leader waste valuable time trying to "fit" them into their solution).

2. Evolution is second nature

a. Continue to evolve the program based on the lessons from ongoing missions and war

All the teachers spent time daily reading, including

1. Lessons from the Global War On Terror
2. Military History, particularly leadership biographies
3. Also, non-military (relate to the students)

a. News items
b. Sports

b. Be open to well-thought out ideas—even from students

c. Open to experimentation

i. A hard one for an Army culture focused on process, standardization and test for proficiency
ii. In an adaptive leader's course, how to think is important
iii. Be prepared to facilitate, introduce theory and doctrine, later, not earlier. Let the student discover
iv. As long as it can be safely done
v. As long as the student tries to explain their reasoning

d. Failure is accepted as long as over time improvement is made

i. Another hard one
ii. In the act of making a decision

e. Metrics of measure are conducted through an examination of signs of adaptability over time

i. The final hard one-does not have to be a checklist
ii. We literally had 15 to 30 observations of students over two semesters, observations are conducted as part of a 360 degree assessment[26]

3. The Instructors themselves must,

a. Always set the example, ethically and morally

i. You are watched all the time
ii. It does not mean you have to be a Nun, but specifically, what you say must be backed up by action

b. Not let your ego get in the way of encouraging cadets how to think

i. There is little room for "when I was…this is the way we did it"
ii. Be proud of your accomplishments, but don't over do it. Sure, put up a "love me wall." Your students love seeing where you came from and what you have done, but let your actions speak for your ability

[26] Explained in more detail later.

c. You can learn from everyone, students included

    i. We conducted 360 evaluations, which included the students accessing our performance. Every semester I learned something about myself (of course we gave them the option to sign the form or not)
    ii. We also conducted semester class "bitch sessions" where the Military Science IV (MS IV) or cadet officers ran the session and took notes
    iii. At the end of the fall semester, the professor of military science or PMS (the commander and head professor of the battalion) tasked the two company commanders to give assessments of the development of each Military Science III (MS III) cadet

d. Get used to spending a lot of time observing and taking notes

    i. Our planning frame was two to three hours for every hour of execution, more time for more complex operations like free play, force on force training
    ii. To keep up with detailed observations, most cadre and cadet officers took notes on a plain card and then transferred the information to the detailed and complex cadet evaluation form

e. Expect to work very hard, you will have too,

    i. Be very proficient at everything in order to facilitate properly, not only,

        1. Your specialty, but holistically understand war
        2. Other disciplines
        3. Understand the theory, but don't obsess with it
        4. Know how to use of historical case studies to emphasize a learning point
        5. Physically fit, and well-rested

    ii. Constantly evolve scenarios to give your students what they need to develop adaptability

        1. It was never, "I'm done now"
        2. We would tell our students, "don't try to ask so and so from last year what the exam would be, we always evolve them." But, "there is nothing wrong with studying the problems he or she faced"

    iii. Be prepare when conditions are right, to teach a lesson

1. From the scenarios we developed, and the lessons from previous application of earlier scenarios in whatever forum, we figured what tasks or lessons had to be emphasized

iv. Understand the time and place for tasks training

1. There are times it must be done
2. Be prepared to use to impart a lesson
3. Prefer the student be given the task to find the answer and then instruct their peers on how
4. It remains subordinate to enabling adaptability

v. Process does not drive results

4. The adaptive leader course, the "learning organization" can also be fun

a. With all the hard work—planning, preparation and execution—made it fun
b. We were able to buy paint guns my second to last year, and with student input, guided by the three principles above, developed some innovative, fun, yet challenging training that enabled adaptability[27]
c. The finale exercise of the school year pitted the "G-forces" (guerilla forces) of the cadet officers to fight a free play force on force exercise against an attacking cadet company, commanded and led by MS IIIs at all levels. The student leaders were issued OPORDs with time to present their subordinates orders and also rehearse their course of action
d. Cadets ran a "Maneuver Warfare Club" that studied warfare beyond what our curriculums presented

The bottom line is that this climate drives all members of the organization to do the best they can in preparing their cadets for the future by using the most effective methods in education and training.

The end state ***we-the* Army—is** seeking is creating ***leaders of character*** who are ready, willing and able to make the right decisions in the face of adversity, be it the enemy, subordinates, peers or superiors, on and off the battlefield.

[27] Georgetown University authorized us the funds to buy 25 guns with all the equipment, and plenty of ammunition. Cadet Command does not endorse the use of paint guns?

V. Scenarios Enabling Adaptability (SEA)[28]

What do you mean by using the word "enable adaptability"?

Scenarios Enabling of Adaptability (SEAs) are situations—both combat and non-combat—employed through an array of different tools to create the conditions to evolve adaptability. This process over time is Evolutionary Adaptability. Each SEA emphasizes one or more of the traits of adaptability. SEAs come in many shapes and sizes (that is where instructor selection of what tool to deliver the SEA is important).

There three other factors that must work together to produce learning synergy. They are

- How the instructor facilitates
- Does the student understand or try to understand what is being taught?
- The final and likely most important factor is mentorship (either individual one on one or through an After Action Review.

The instructor must sit down with both the leader and their team, both together and separately and go over what was just learned. With the team, this can resemble the After Action Review (AAR), and with the individual, it is similar to counseling—but both are conducted in a two-way forum.

SEAs are situational-based where individuals are required to exercise mental agility to meet the demands of the situational stimuli while implementing a problem solving solution. The SEA can be delivered through the following tools,

- Listening exercise where instructions are translated from paper media to a situation given orally to Cadets by an instructor. Then the students have limited time to write the instructions down and give them back to the instructor
- Seminars
- Virtual computer based wargames
- Staff rides
- Terrain Board Exercise
- Tactical Decision Games (TDGs)
- Free play, force on force exercises

The purpose of SEAs is to provide opportunities to gain experience. Through multiple participation, either as a leader or team member, students gain breadth in experience and skills in decision making to meet a specific set of circumstances.

The benefits of SEAs used with the proper tool are to provide cadets and students with supplemental information that can be converted to experience when a situation

[28] See Annex C

presents itself. It must be noted that these scenarios and the prescribed teaching approaches shown later in this hand book are not substitute for true real world experiences.

SEAs benefit cadets by

- Improving pattern recognition skills
- Exercising the decision-making process
- Improving and practicing communication skills
- Increasing leadership potential

The Terrain Board Exercise or TBE is one of the most fundamental ways of delivering a SEA. A Terrain board Exercise (TBE) is a three-dimensional tactical exercise game that employs a three-dimensional terrain model with various props to represent assets or liabilities. It is one way to use scenarios to enable adaptability. Assets are items that can be utilized to develop a solution or optimize performance in some manner. Terrain boards or similar training support items benefit the students by creating "top site," which is the ability to see how the pieces of the problem fit together.

Advantages of Scenarios Enabling Adaptability

Another way to understand scenarios that enable adaptability is by the use of historical case studies to facilitate learning. These are sprinkled throughout the scenario, where the instructor sees fit, to enhance learning. Every training application has benefits and limitations, which is understandable since training can only simulate the operating environment, and the mettle required to function under combat conditions.

The SEA does have benefits and limitations. While all scenarios enable a student's ability to think critically in conjunction with some level of situational awareness and analysis, the generalized benefits of conducting scenario enabling are listed below:

1. Interactive training
2. Hot seat thinking
3. Experiential learning
4. Command experience
5. Learning Organization

***Interactive Training* is** seminar approach to Scenario enabling that creates an interactive learning process, which can be highly effective. The instructor can project training focus and integrate experience into the SEA while providing immediate feedback to cadets on their solutions.

Hot Seat Thinking is when a cadet or student is put "on the spot" and has to make decisions, and then deal with the outcomes just as they would in a real situation. Soldiers have prided themselves in near flawless performance in any application they are assigned. The ability to perform in front of peers can generate the motivation and

initiative to develop greater proficiency or diversified skills. In order to create this positive learning environment, the instructor must use judgment to create a challenging level of stress during the scenario, and a mentoring approach to the after action reviews.

The combination of leadership finesse and mentorship will build a more cohesive leadership team within the unit, since "hot seat" thinking leads to proactive leaders.

***Experiential Learning* is where cadets and students can** often learn through the experiences of others. The learning can come in the form of after action reports, case studies, or actual observation of an event.

***Command Experience* is where t**actical decisions are always expressed in the form of combat orders. The cadets must understand and be able to give "frag" orders based on a given conditions initially with the scenario and subsequent changes as the scenario progresses. This builds confidence and presence.

***Learning Organization* in this context is where a scenario and how it is applied** can be designed as a rewarding way for cadets and leaders to expand skills, while creating a positive environment where training and the associated learning are actually fun and practical. The ability to create new skill sets affects leaders much like qualifying on the rifle effects the Soldiers attending basic training and Advanced Individual Training (AIT). A given scenario and how it is implemented provides a great team building and mentorship forum that builds tactical and technical proficiency through decision-making.

Limiting Factors of SEAs/Tools

Understanding the limitations of how to deliver SEAs allows the instructor of adaptability to link the training objectives with the appropriate tool when using the SEA. The limitations of different tools that SEAs use are,

1. One Move TDGs
2. Difficulty simulating operating environment
3. Works best at the initial attack, extended attack, or company level
4. Difficult to apply to special operations

One Move TDGs represent a single "snapshot in time" that requires players to make only one move. These TDGs do not capture the on-going interactive nature of tactics or decision making.

Difficulty Simulating Operating Environment is important to develop mental agility and critical thinking skills the decision execution is the primary difficulty and often becomes the limiting factor of SEAs. While the SE can enhance critical and creative thinking skills, it is almost impossible to simulate the friction and uncertainty of the operating environment.

Design Difficulties

While SEAs have viable applications at every level, it is most effective at the company level because of the enhanced number of variables and limited perspective of the scenario. When TDGs are used at higher or lower levels, they are more difficult to design. At higher levels, the decision-making cycle takes longer and the scenario must generally describe a situation developed over time. At lower levels, a terrain model might better serve the TDG or detailed micro-terrain details.

Limited Special Operations Applications Operations that require intricate planning and large quantities of detailed technical information, generally becomes too difficult to design applicable SEAs no matter what tool is used to implement them.

SEA Design

Designing a SEA and choosing what tool to employ them with to enhance training and decision making can be a challenge. Instructors using SEA need to incorporate critical thinking and decision-making skills in order to improve the performance of their cadets and themselves. This section focuses on how to design a Scenario and what tool to use to employ them that is innovative and useful.

The SEA is only as successful as the design and the tool selected to deliver the SEA. After developing or during development of a SEA, the facilitator should try to incorporate as many of the following elements as possible or required for SEA play when determining what tool to use to employ the SEA.

1. Interest
2. Appropriate tool with level of challenge
3. Level of detail
4. Granularity
5. **Multiple Interpretation and Solution**
6. **Avoid a Solution Approach**
7. **Role-Playing**
8. **Limit Information**
9. **Limit Time**
10. **Create a Dilemma**
11. **After Action Review**
12. **Simplicity** Design

A SEA and how it is employed should generate ***interest***. In order to do this, the instructor has to focus on quality and the application reality. A mission that reflects the possibilities of the operating environment will build interest. Gaining interest is the first step in developing an infectious desire to learn and excel.

Developing a SEA employing the ***appropriate tool and with the level of challenge*** requires the instructor or facilitator to continually monitor the skills and abilities of the cadets that are going to be involved. Pushing the limit on a cadet's tactical and technical ability is fine as long as it does not minimize interest and learning opportunity.

The level of detail for each SEA will be different and will also assist in picking which tool should be used to deliver it. For example you may have the resources to do a SEA involving a squad through the force on force free play, while a company or higher SEA would be appropriately delivered with a TDG. The facilitator must present enough information allowing the player to act. The right level of detail keeps the TDG from getting bored or overwhelmed. Ideally, creating a situation that amply shrouds the dilemma in the "fog of war" without overwhelming or boring the participants creates the max benefit for the players and facilitator.

Granularity refers to the level of information that is proportionate to the level of the game. Squad level games should set squad or platoon level objectives, have appropriate level maps, and details. Granularity can be achieved by using the Systems Approach to Training, which is covered in a subsequent section of this hand book.

Multiple Interpretation and Solution **is where t**he SEA should present a dilemma that is open to scrutiny and freethinking, which will generate multiple reasonable solutions. For example when using a seminar with multiple players to deliver the SEA, the multiple options create opportunity for discussion and interactivity.

Avoid a Solution Approach **is where the SEA and tool provide the solution. The SEA and appropriate tool should** present a problem or dilemma, not a solution reverse engineered into a problem. Contrived situations with a "canned solution" limit interest and the decision-making opportunity.

Role-Playing refers to the perspective that the SEA is designed to view the dilemma. For example, a squad leader may have to capture the perspective as the company commander, which could significantly change the play of the problem. Role-playing expands the perspective of the battle space and the requirements for mission accomplishment or solution.

Limit Information **is where** the information is limited in the SEA and requires the player to critically analyze the information that is provided, and then apply it as creatively as possible for the maximum solution with minimum time requirements.

Limit Time in SEA requires the players to focus on adaptability while economizing the information flow to critical information requirements only. Decision making under mental duress hones the player's ability to make decisions in real situations where the operating environment may be hostile.

Create a Dilemma is where the SEA **s**tarts out as a basic problem. The problem and how it is delivered should be appropriate for the level of experience and skills of the cadets participating in the SEA.

After Action Review allows the seminar leader to draw out lessons learned from the TDG play. Reviewing the chosen course of action or reasoning behind the decision-making process can be beneficial for all parties. Building the experiences and reinforcing lesson learned is an essential part of the decision-making process.

Simplicity Design often has greater effect than complex TDGs. Simplicity requires intuitive thinking and focuses on basic or universal concepts. Universal concepts can be altered slightly for unique situations quickly and effectively.

The SEA should infuse fog and friction to create a situation that has no one clear solution. The ability to cause friction gives the simple SEA through the use of a TDG or TBE magnified value though discussion and decision-making potential.

Design Sources Designing original SEAs from scratch can be a great challenge. After defining the objective of the SEA, the facilitator may be able to draw a workable scenario from another source. Some of the possible sources are listed below and should be considered by instructors developing SEA and what tool to use to deliver them.

A historical battle can provide a useful basis for a TDG. The instructor can update the scenario by using modern weapons and the organizational structures. The scale of the battle can be adjusted, as necessary, to meet the SEA objectives. When the seminar leaders brief the historical situation and outcomes pre- or post-SEA, they should be careful to not present the historical solution as the "right" solution. The focus is on developing decision-making capacity and capabilities.

Personal experience can be converted into SEA, but the teacher should focus on the decisions generated rather than the actual outcome. If the cadets involved all share common core competencies, this particular approach is particularly effective.

Specific Dilemma:

1. Mission
2. Enemy
3. Size
4. Disposition and activities of enemy
5. Disposition of friendly forces
6. Terrain and weather

Random Engagement focuses on a specific piece of terrain with relief, vegetation, and other features. The instructor then makes the enemy and friendly forces appear in different location and multiple directions, as the scenario requires. The

situational factors should be filled as appropriate for the skills and abilities of the cadets participating in the SEA.

In general terms, a SEA can be designed in one of two methods. These methods are

1. "Here's the mission" or situational-based
2. "Now what?" or a reaction to the solution

Situational-Based SEA focuses on a particular situation that is given to the player in a mission order format.

Solution Reaction SEA focuses on taking the initial situation and moving one situation forward in time. The situation should be considered in three dimensional terms, so that the instructor can select the best option to feed to the cadets.

Enhancements can be used to modify a SEA to achieve different adaptability objectives, and develop a larger experienced base. The instructor can implement any number of the following suggestions to increase the decision-making opportunity, and minimize the amount of time required to negotiate the SEA.

Reverse Scenario is where the scenario is reversed and players have to rethink the dilemma from the opposing perspective. It is mainly used in either with a TDG or seminar approach. If time and resources allow, though, free play force on force can get exciting when the winner or part of the winner now has to assume the role of the opposing force they just defeated. A player has to create an analysis of how an opposing force would execute an operation on the same piece of terrain that was either being defended or assaulted. This is an excellent method to war game a scenario to identify strengths, weaknesses, opportunities, and risks that fortified or weakened the previous scenario.

Modify Terrain Perspective is where the SA **c**an change drastically by simply modifying terrain perspective. When using a map, terrain model, or sand table, and rotating the perspective 90 degrees can totally change the way decisions have to be made and implemented. This is even the case when using free play force on force tool to deliver the SEA. During the after action review, which is conducted by the instructor, focus should be placed on how the SEA dynamics and decision-making rational changed by rotating the terrain.

Variable Modification is where SEAs slightly change the problem analyses, decision processes, and solutions significantly. For example, the instructor could change the TDG scenario in the one or more of the following ways:

1. Daylight to nighttime operations
2. Foot mobile forces to mechanized or heliborne forces
3. Changing climatic or terrain factors, such as desert operations to

woodland operations

4. Modifying the size of the enemy forces
5. Changing it from a non-fight to a fight

In order to be successful using variable modification, the instructor must be intimately familiar with the capabilities and capabilities of the cadets in their group. Challenging the mental processes and procedures is the goal, but care must be taken not to overwhelm the cadet to the point that they no longer wish to participate.

Special Operations SEAs are difficult to design, since they require large quantities of detailed or highly technical information and usually can only be done through a TDG or seminar approaches.

VI. Teaching Adaptability

"We cannot expect to be able to issue long-winded orders, either written or oral. Whatever order we are able to issue must be short and must be clear. If we hope to do this in war we must practice it in peace."

Adolph von Schell, *Battle Leadership*

Effective teaching in the ALC incorporates as many of the following guidelines when conducting a SEA by any tool:

1. Infuse enthusiasm
2. Craft tactical proficiency and interactive perspective into the SEA, different tools can accomplish different traits of the SEA
3. Demonstrate mental agility and adaptability
4. Stimulate and maintain player interest
5. Integrate mentorship into the SEA
6. Manage players and scenario

Enthusiasm is **t**he ability to realistically paint the scenario and place the participant into the play is crucial. Enthusiasm is contagious and absolutely necessary to effectively build the scenario.

Proficiency and ***Respect*** is when the instructor knows the skills and abilities of the participants, the SEA through the appropriate delivering tool can be used to challenge cadets without overwhelming them. It is absolutely crucial that the instructor not to over design the SEA and pick the right delivery tool beyond the scope of their capabilities. An instructor should conduct a self-analysis of their own skills and abilities, and keep the SEA to where it generates positive results, not professional embarrassment.

Mental Agility and ***Adaptability*** are **paramount.** The instructor should demonstrate the ability to react to unanticipated solutions and responses. Incorporating critical and creative thinking requires the instructor to adapt to the response and redirect the play as required. Becoming mentally mired in as the facilitator could limit the decision-making and experiential learning potential.

Stimulate Player Interest starts with design and development, but finesse in execution is even more important. Do not beat concepts or observations into the ground. Keep the play and discussion rolling at a light and brisk pace. Leave room for mental maneuver.

Ideally, the instructor will be a senior approaching the SEA from the position of a mentor. Positive communication and approach increases the effectiveness of the SEA. The seminar can target areas such as

1. Teaching or illustrating warfighting or tactical concepts
2. Teaching warfighting or operational techniques
3. Relate the importance and development of implicit communication

Cadet Critiques are essential to recap the play of the SEA and create lessons learned. The game facilitator will have to make notes during the game to analyze and capture the thought processes used to make decisions during the SEA. Critiques can identify adaptability objectives that can be implemented in future SEA, curriculums, and field applications.

In the POI of the adaptive leaders course, the instructor has direct input on the schedules or may do the actual planning, so the results from SEAs can be used to create similar situations for future SEAs as well as what tool will be decided upon to deliver them.

Conduct Discussions during or after every SEA enhances the lessons learned since it requires the players or observers to think critically. Discussion is the oral application of decision making, since it requires the players assess the information and then provide feedback to the SEA facilitator and other players. Critiques, discussions, and after action reviews are all similar, but can be directive, interactive, and informational respectively depending on the personality and approach of the facilitator and the training objectives that support the design of the SEA and the appropriate delivery tool.

Manage the SEA is where the instructor attempts to set a tone of open candor when the group participating in the SEA is made up of varying experience levels.

Facilitation

When the instructor is determining the method of delivering the SEA, the number of cadets to be enabled and the adaptability objectives are the determinants. The instructor is most likely going to use a TDG to deliver a SEA. The three basic methods to play a TDG are

1. Solitaire
2. Seminar
3. Force-on-Force (dynamic, multi-resource)

The ***solitaire method*** requires the player to solve the problem in a fashion similar to solving a crossword puzzle or brainteaser. The paper TDG is the ideal application for the solitaire game in that the individual reads the problem, produces a solution, compares a response with the one provided, and then reflects on the rationale that is used to determine the solution.

The ***seminar forum*** involves a designated facilitator and a group of players. The facilitator presents the information and guides the solution produced by the players. Ideally, the number of cadets should be limited to 12 or less.

The ***Force-on-Force*** or the dynamic, multi-resource method is a more advanced version that evolves along a timeline. Players may represent opposing or adjoining forces and must respond to changing situations. When playing from opposing perspectives, the teams simultaneously solve the SEA from opposing viewpoints. The instructor also assumes the role of an observer controller facilitating and comparing the two solutions and generates a new scenario based on how the two scenarios match up.

The instructor uses judgment to assess outcomes or casualties of the solutions. In this case, the facilitator must control the evolution of the SEA with the purpose of generating new tactical challenges. The new challenges must be "on the spot" or intuitive decisions vice the collaborative thinking and planning used for the initial scenario. After four or five engagements, the opposing side will have completed an engagement.

Limiting Force-on-Force Play is where the instructor limits the size of the teams when using the force-on-force forum to four to six cadets. Larger or smaller sized teams limits the amount of interactivity, increases the amount of time to play the SEA, expands the decision-making capacity of the players, and is harder to direct and control the objectivity of the game.

Facilitator Responsibilities

The instructor facilitating the SEA should be able to incorporate the following concepts to create the desired benefits from the SEA based on how it was delivered

- Prepare for the exercise
- Present the scenario
- Choose cadets(s) to present solutions
- Enforce the "time limit" rule
- Enforce the "decisions as instructions" rule
- Question the thought process
- Lessons learned

Prepare for the Exercise **is when the instructor** must have a thorough knowledge of the SEA being presented, and be prepared to address a variety of possible decisions made by the players. The experience and expertise of the Cadre corps has to be at such levels that it makes them excellent SEA facilitators, but it also requires them to think "tactically."

Thinking tactically is not necessarily thinking in terms of combat, but more so in conceptual perspective of warfighting. Creating an atmosphere that forces the "game play" to utilize the OODA process intuitively, can be challenging with novice players. Designing SEAs that unroll quickly for more advanced players, requires the controller to

combine warfighting, tactics, techniques, and occupational specifics to speed up the decision-making process faster and more effectively.

***Presenting the Scenario* is how the instructor** presents the scenario to the group. This can be done with an explanation supplemented with an orientation of a map or sand table, as applicable. The controller should also be prepared to answer any questions that the cadets may have about the situation. Answering questions does not mean that the controller should eliminate all uncertainty.

Choose Cadets to Present Solutions is generally better than asking for volunteers. The player should not feel as though they can escape the challenge by simply not volunteering. Creating a SEA environment that makes the players feel as if they have as much chance as anyone else is important since it adds to the stress of the TDG. The controller should not tolerate players that actively try to avoid presenting a solution.

Enforce the "Time Limit" Rule holds the players to a set time limit, it forces them to act quickly. Time compression creates stress, which is normally part of the decision-making process especially under operational conditions.

***Enforce "Decisions as Instructions" Rule* is when the instructor** should require the players to issue their decisions as combat orders utilizing the appropriate format. The player should be prepared to discuss the decision made later in the game. The facilitator should ensure that the SEA forum is focused on "Decide now, discuss later."

***Question the Thought Process* is when the** SEA facilitator should question the thought process by inquiring as to the rational used to make the decision present. Useful questions include:

- What was your reasoning for that action?
- What was your overall estimate of the situation?
- What would you have done if...?
- What were your assumptions?
- What was the biggest concern about your plan?

Lessons Learned Summarizing is done at the conclusion that the SEA produced, and it is essential to create greater decision-making ability.

Brief Instructions

The facilitator should provide the players with a briefing and clear instructions for the SEA. The briefing and instructions should convey the following essential information:

1. **Overview of the situation** is to include elements or anticipated changes in the situation that could significantly influence the actions of the unit.
2. **Mission and commander's intent** is what the task is, why it needs to be

done, and what the intended end result of the action is.

3. **Coordinating instructions** that state what each unit is to do and when.
4. **Communication methods** are used between individuals and between adjoining forces.

Identification of known hazards and planned controls of those hazards.

Facilitation Techniques

The following facilitation techniques should be incorporated in TDGs.

1. The art of asking questions
2. Teaching to objective
3. Briefing clear instructions

***Art of Asking Questions* is the** asking of questions to allow the facilitator to shape the dilemma that the cadet is expected to respond to. It requires the facilitator to incorporate two basic techniques:

1. Active listening
2. Questioning

Active Listening is important in that it prompts the facilitator to ask questions, how to ask and answer questions, and how to defer questions or bounce them off the rest of the group.

Questioning-the SEA facilitator must probe the player's thought process to get the player to explain their rationale.

Questioning Techniques is using questions to prompt thought in the cadet, the facilitator should avoid leading questions. Examples and suggested alternatives are provided below

Example: "Wouldn't this have been a more effective course of action?"

Alternate: *"Did you consider any other alternatives?"*

Example: "Do you really think that will work?"

Alternate: *"On a scale of 1 to 10, what do you think is your probability of success?"*

Example: "So by using air support, you really think that you can still use direct attack on this flank?"

Alternate: *"What would you do if the air delivered munitions missed the*

target?"

Example: "Don't you think that hill is too steep for a dozer?"

Alternate: *"What information did you use in choosing a dozer for this assignment? Is there anything else you should consider before using a dozer?*

Objective Focus is the facilitator's primary responsibility is to ensure that the exercise and discussion does not stray away from the purpose of the evolving toward adaptability. Additionally, the facilitator should refrain from lecturing and allow the participants to teach each other. In order to meet these two requirements, the facilitator should have provoking questions prepared to stimulate activity and limit discussion. The following guidelines can assist the facilitator.

1. Guide the discussion.
2. Focus on the objectives in a logical sequence.
3. Avoid detailed examination of events not directly related to major training objectives.

Teaching to the Objective is where SEAs are set up with specific learning objectives in mind, and it is the facilitator's responsibility to ensure that the exercise and discussions do not stray away from the adaptability purpose.

Refocusing on the Objective is where **t**he objective of the SEA is decision making. A SEA is not an academic test, but rather an exercise in thinking and application of information, and experience to improve the decision-making process. The questions selected to prompt activity should help the player clarify that information inputs are consciously and subconsciously important to them. Additionally, the player should be able to rationalize how the information was used in the decision-making process.

Conclusion

But, finally have fun with SEAs.

There is no 'right' answer, only better ones. All responses have some benefit, and highlight your perception of the problem. There is nothing to stop you from coming up with more than one response. Recognizing, however, that there are many ways to approach a problem, we did not limit the student to one pass-or-fail school solution.

This is hard when using the SEA through the TDG for example to evaluate decision-making ability during an examination, but it can be done.

We used four evolving questions when grading the TDG exams and quizzes.

- First and foremost was a decision made?

- If so, we jump to two was it communicated to their subordinates effectively?

- Then, we ask was the decision made in support of the commander's intent (long-term contract), and mission (short-term contract)

    - From there, if it was not, then the instructor asks himself was the cadet solution based on changing conditions that made it a viable decision even if it violated the original mission, but supported the intent?

Failure in the SEA occurs when the cadet cannot make a decision. Or, in the course of briefing their course of action, or while the instructor is assessing the SEA, the cadet changes their decision because the instructor challenged the cadet's choice. Here, the cadet demonstrates the need to go along with the instructor ("higher"). Even if the instructor feels that the cadet's decision is a sound one, they may challenge or test the cadet's character in the face of adversity, to see how much the cadet believe in themselves.

In the end we believe that SEAs executed through the right tool, mostly TDGs, provide the best educational approach for building a cadet's strength of character. The current Army POI of most courses uses process and task training to train potential officer on "what to think." In most of our wars, with the U.S. coming in late, and after the Germans were bled down and almost already beaten, it made it appear in the "glow of victory," that our system of officer production was the right one.

VI. A Journey Not a Destination

What is the goal of the cadre, specifically the teachers, in an ALC? Of course it is to develop and nurture adaptability in their students.

But how?

Didn't we mention this in earlier sections through the principles of an ALC?

Yes, that was the how to, but this is the "what", the goal of the ALC. While the lessons are listed below, are similar to some of the sub principles, we found that they are worth listing as how to accomplish the goal.

An ALC should do the following throughout and after the new adaptive leader graduates. Listed below extend beyond the four principles of an ALC, and apply to the leader throughout their lives. Students should be,

1. Left to do as much as possible, from planning training to combat

2. Allow to fail (context of seeking a solution)

3. Push to seek answers

4. Introduced/trained/evaluated on tasks, in a mission

5. Individual tasks or requirements are part of self development-interspaced later in the course, or put upon the student to discover

What does the adaptive leader course, a "learning organization," inspire?

1. It allows for experiencing emotional trauma of failing within a safe, face saving environment

2. It forces the student to find the answers for themselves, and then the lessons are emotionally marked in time, which builds intuition—a necessary trait of "adaptive leaders."

At the end of the course what can the new adaptive leaders have do?

1. Rapidly distinguish between information that is useful in making decisions and that which is not impertinent

2. Avoid the natural temptation to delay their decision until more information makes the situation clearer or risk losing the initiative

3. Feel the battlefield tempo, discern patterns among the chaos, and make decisions in seconds much like a Wall Street investment trader, but with life threatening consequences

In addition to enabling, developing and nurturing adaptability, Leaders will also develop the following traits alongside and in order to be adaptive,

1. Strength of character

2. Built experience, intuition through repetitive skills training

3. Understand the value of self study

4. Understanding of a command climate to promote adaptability, accept change, and encourage innovation

Today in Iraq junior leaders are being forced to improvise on their own to overcome what they were not taught in peacetime. We must realize that the foundation of an effective officer corps in the future must begin early. Military education must change radically to establish "how to think" and create leaders that are adaptable and have intuition. If we are going to really "Transform" the future force, we need to start now with the next generation.

Annex A

Lexicon

1. Purpose: Two principal emphases of the Army's leader education system assume increased importance in the next ten years. In the first place, institutions tasked with leader development must produce technically qualified, doctrinally trained leaders. In the second, it must evolve from a competency-based education and training system attuned to support the nation's doctrine of mobilization to one that supports an expeditionary Army by providing those leaders the intellectual foundation to develop adaptability, as well as strength of character to lead change in the years ahead.

For the teaching in and as cadre in an ALC both requirements first mean defining fluency. In other words, ALC members must share and understand a professional language and a set of operating concepts while moving forth with proposals to evolve professional development from the current one designed to support mobilization doctrine to one that will support an Army with expeditionary and joint capabilities. One that is adaptive. Key terms listed below were identified as those terms that will be important in creating a common understanding, but different members of the group caused confusion using them in varying context.

Below, each term is listed in order by the times they have been listed in official documentation dealing with adaptability and leader development. All the terms here were mentioned yesterday by both the Task Force and/or presented slides. Definitions listed as officially used by the Department of Defense, the Army, or Academe.

2. Key Terms:

a. **Adaptability: "**is an effective change in response to an altered situation." Adaptability is not speed of reaction, but the slower, more deliberate processes associated with problem solving. As we discuss later, speed in problem solving may come after adaptability-related skills are learned, but speed is a secondary—not a primary—characteristic.

b. **Agility:** "the ability of friendly forces to act faster than the enemy." (ARI, 2005). Indeed, all of the definitions of agility focus on speed and nimbleness. Agility is too narrow a concept to encompass all the factors that seem to be important in dealing with asymmetric threats. While speed or nimbleness is clearly an important trait, it was a secondary trait when compared with adaptability.

c. **Complexity Theory as Applied to Warfare**: Complexity theory deals with the study of systems which exhibit complex, self-organizing

behavior. A complex system is any system composed of numerous parts, or agents, each of which must act individually according to its own circumstances and requirements, but which by so acting has global effects, which simultaneously change the circumstances and requirements affecting all the other agents. Complex systems are based on the individual "decisions" of their numerous agents (Briggs and Peat. *Turbulent Mirror*. 1989. Harper and Row).

d. **Culture: "**Culture is a longer lasting, more complex set of shared expectations than climate. While climate is how people feel about their organization right now, culture consists of the shared attitudes, values, goals, and practices that characterize the larger institution. It's deeply rooted in long-held beliefs, customs, and practices." (*FM 22-100 Leadership*. 1999).

e. **Newtonian/Mechanistic Approach:** Sees military operations as a closed system not susceptible to perturbations from its surroundings. This leads toward an inward focus on the efficient internal functioning of the military machine. If war is deterministic and if the machine is operating at peak efficiency, then victory ought to be guaranteed without any need to consider external factors. The mechanistic view likewise leads to a focus on optimization finding the optimal solution to any problem (which is based on the Cartesian assumption that an optimal solution exists). War comes to be seen as a one-sided problem to be solved like an engineering problem or a mathematics problem rather than as an interaction between two animate forces. In idealized Newtonian war, the enemy, the least controllable variable, is eliminated from the equation altogether.

f. **Learning Organization ("Culture of Innovation"):** a culture of innovation as one in which people at all levels proactively develop and implement new ways of achieving individual, unit, and institutional excellence and effectiveness. A culture of innovation is typified by an environment within which every single person in the organization is invested in the organization's success and feels a responsibility to implement new and better ways to achieve organizational objectives. People are encouraged to try alternative paths, test ideas to the point of failure, and learn from the experience. Experimentation and prudent risk taking are admired and encouraged. Experimentation is not a destination to be reached, but an unending process of trial, feedback, learning, renewal and experimentation again. The organization as a whole is agile, ready to learn, continually changing, and improving. It is fast, flexible and never prepared to say "we have finished getting better." Innovative organizations depend less on forecasting, planning and control and more on scanning, agility and feedback. Innovative organizations embrace uncertainty, recognizing that an uncertain future potentially holds as many opportunities as it does threats. (Fastabend and Simpson, 2004, "Adapt or Die").

g. **Culture Change Strategy:** Paradigm changes in leadership development cannot succeed unless the entire system focuses on objectives consistent with operating values and organizational culture. In turn, the operating values necessary for transformation must lead to development of officers to bring about organizational excellence. Aligning personnel development standards with transformation brings strategy and structure together. If these ideas are not linked, the system will develop leaders not well suited for transformational change. (McGee, Jacobs, Kilcullan, and Barber, "Conceptual Capacity as Competitive Advantage: Developing Leaders for the New Army", in Out *of the Box Leadership: Transforming the Twenty-First Century Army and Other Top-Performing Organizations*, ed Hunt, Dodge, and Wong. 1999. JAI Press).

h. **Command Climate:** A sub set of a larger culture, and usually short-lived, it can reflect the larger principles and beliefs of the culture, or can counter some of these due to the fact that the leaders are closer to "the action" and adjust performance measures and command philosophies to enable success (Jones, *Improving Accountability for Effective Command Climate: A Strategic Imperative.* 2003. USAWC).

i. **350 degree Assessment:** Subordinate and peer ratings on the performance of their leaders within their chain of command using evaluation questionnaires. In an organization which uses 360 degree assessments, each leader receives 360-degree feedback during each duty assignment. Feedback received as a commander or staff officer is equally valuable in identifying leader strengths and weaknesses, and by doing it this way, the leader receives continual feedback throughout his or her career which optimizes self-awareness, and; therefore, greater potential for leader development> (Ulmer, "Military Leadership into the 21st Century: Another "Bridge Too Far?" 1998. *Parameters).*

j. Process: "The prescription for complexity is *process*, and over time the Army has applied this antidote to the point of addiction. Process is important, but excessive focus on *process* versus *product* significantly impedes innovation. Process is better suited for optimization rather than innovation. A process dependent organization like the Army can quickly lose the product forest in the process trees. This wound is not entirely self-inflicted. External stakeholders, such as Congress, the White House and the Office of the Secretary of Defense, operate within their own processes that are not optimized for innovation; many processes, in fact, are optimized for control rather than change. Balancing their vital oversight role with the freedom of action which best leads to innovation is a prime challenge for the civilian leadership of the military." (Fastabend and Simpson, 2004, "Adapt or Die" 2004. *Army*)

k. **Education:** Education is imparting and reflecting on an assembled body of knowledge. The faculties of all the schools have no unified view of that

"assembled body of knowledge." Education teaches a minimum of psychomotor skills. It concentrates instead on the cognitive domain, especially the higher cognitive levels, i.e., high comprehension and above. Cognitive objectives written at the appropriate level of learning (knowledge, comprehension, application, analysis, synthesis, or evaluation) are more useful for education. When behavioral or criterion objectives are used in education, they are generally broader than when used in training and relate to the learners' ability to generalize, see relationships, and function effectively in new situations—situations which cannot be completely visualized or defined. Education, in contrast, is an open system. Learning is continuous with no cap or ceiling on how well the graduate may be prepared to handle new responsibilities. Right answers and ways of doing things often do not exist in education—only better or worse ones. (Kegan. *The Evolving Self*: *Problems and process in human development*. 1982 Harvard University Press).

l. **Training:** Prepares a soldier to deal with expected situations. Following the traditional three-part distinction among the domains of learning (psychomotor or doing, cognitive or thinking, affective or feeling), training emphasizes the psychomotor domain of learning. Training that is done in the cognitive domain is generally at the knowledge level and lower part of the comprehension level. Criterion objectives are most appropriate for training. That is, under a given set of conditions, a student will exhibit a specific behavior to a certain predetermined level or standard. Training is essentially a closed system. The trained individual is easily recognized as knowing the "right answers," doing things the "approved way," or arriving at the "school solution." Under these conditions, the products of each trainee in every situation can be expected to look the same. Objectives, job requirements, and skill levels are constraints with training. Yet time required for training can vary because of the aptitude, experience, and previous skill level of the student. (Kegan. *The Evolving Self*: *Problems and process in human development*. 1982 Harvard University Press; Also FM 7-0. *Training the Force*. 2002. HQ, Department of the Army).

m. **Learning:** Affective learning, by the way, is a product of both education and training. A change in behavior as a result of experience. Learning clearly includes training and education. how we perceive is highly related to how we think and learn and to what we know. It is a nexus of *Horizontal* (in-time) processes that drives three forms of *Vertical* development – Cognitive (CD), Social-Emotional (ED), and Knowledge (KD). Together, the P& L processes determine what we 'see' outside of ourselves and how we view and what we learn about ourselves from within. Evidence shows we have preferences for using one mode of apprehension, thinking, and evaluation over others and that such preferences are 'hard-wired,' but not beyond our control. We can learn to

perceive more than we normally would, once we understand there are alternative 'world views' clearly distinct from our own and then begin viewing the world as others do. These preferences also define a *learning style*, because they define how we think about what we perceive. (Jung, C. G. 1971. *Psychological Types*).

n. **Science of Learning:** has evolved to a point where the distinction between training and education is no longer useful. On the traditional battlefield, training prepares a soldier to deal with expected situations. Education prepares a soldier to deal with uncertainty. On the asymmetric battlefield soldiers know that they will have to be capable of performing specific tasks and following their orders in order to survive. However, they will also be expected to demonstrate resourcefulness, initiative, creativity, and inventiveness demanded by a battlefield on which confronting the unexpected and new is considered to be routine. Training for the asymmetric battlefield must develop these skills as well as those associated with traditional tactical tasks. Likewise, soldiers studying in a classroom will have access to virtual and synthetic environments that immerse them in a simulated battle that closely resembles real war. Thus, the nature of modern war and modern technology is challenging the traditional concepts of training and education and causing them to merge into a new form of learning. We describe the confluence of training and education as learning packaged into two categories: training as *field learning* and education as *institutional learning*. In addition, learning to adapt to asymmetric threats requires that individuals and units have the ability to develop new knowledge, skills, and abilities that are necessary for success but for which they have neither been trained nor educated. Conventional wisdom suggests that we "train for the known and educate for the uncertain." This division is no longer adequate. We must train and educate within an uncertain environment to prepare a force to adapt.

o. **Leader Development:** How an organization, large of small develops and creates its leaders ***within time*** and within context of creating, developing and growing defined Leader c*ompetencies, factors, skills, abilities, etc.*, a Leader should be and do X, Y, & Z.' Thus, 'X', 'Y,' & 'Z' are one set of behaviors that spring from what we call a developmental or referred to as 'Frame-of-Reference' (FOR). Behavior changes are not lasting if an organization fails to strike at their antecedents. That is to say, an organization has to account for the fact that the actions it takes at the earliest points in a career and thereafter, in a sequential and progressive fashion, manifest themselves much later. To be proactive, an organization must start as early as possible on having an impact on the causes, rather than attempting to change their effects later. In both educational and unit training contexts tells the Army that to create a "Culture of Innovation in the United States Army" (Fastabend and Simpson, 2004, "Adapt or Die") the Army must start in the school house at all levels as early and as intensely as possible, in accordance with extant Army plans, and take a

different focus on what it is we think we are developing. Leader Development plans will not produce the effects intended, unless at least two things and all that they portend happen. First, the Army must adopt a view of **what** they are growing; and second, the Army must develop **metrics**, and measure of leader development progress systemically *across time*, integrating behavioral measures. To do this, and organization outlines a model of perception, learning, and development constructed on the basis of the best available evidence.

p. **Competency-based Education**: Evolved from the Principles of Scientific Management developed by management and efficiency theorist Frederick Taylor in the 1890s. By the end of World War II, most Public Schools had adapted it as a foundation for its curriculum (Kline, 2002. *Why America's Children Can't Think*). It was designed to fit time constraints with objectives used and defined as reaching a given proficiency selected upon by an organization (such as "Federal Standards") in order to achieve efficiency and define an agreed upon minimum level of effectiveness, or standards have even evolved into beliefs by a culture. Industrial-age organizations seek routine and habit achieved through standardized procedures. Complex tasks are broken into simple steps that are assigned to organizational positions to ensure that employees are both interchangeable and easily replaced. Bureaucratic hierarchies tend to value quantifiable assessment of specific aspects of complex managerial tasks. "Leaving no child behind" is an example of Competency Education, as well as the term "teaching the test," it is teaching "what to think" instead of "how to think."

q. **Intuitive Decision Making Education or the Johann Pestalozzi's Method of Teaching:** a Swiss educator, Johann Heinrich Pestalozzi. In the late 1700s, Pestalozzi developed his theory that students would learn faster on their own if allowed to "experience the thing before they tried to give it a name." More specifically, Pestalozzi methods educate leaders on how to identify the core of a problem, and then deal with that centerpiece of the problem without "wasting time working their way to finding a solution." (John Taylor Gatto "The Prussian Connection" *The Underground History of American Education: An Intimate Investigation into The Problem of Modern Schooling*. 1991. New York, New Society Publishers).

r. **Analytical Decision Making Education:** the classical model of decision-making. (the Military Decision Making Process (MDMP) is merely a process for making decisions and communicating them to others in the form of orders or plans, but is the foundation to how the Army currently learns.) At the lower echelons of command where the commander lacks a full staff he will perform many of these actions himself. At higher levels of the process becomes a more formal interaction between commander and staff. Either way the object is the same: to take a methodical and efficient

approach to decision-making and planning. Army leaders have been conditioned that this is the "proper" way to make military decisions and to do any less is to "wing it" and risk an ill-advised choice. This has laid the groundwork, along side "Competency based Education" model, for how the Army develops leaders. It holds that decision-making is a rational and systematic process of analysis based on the concurrent comparison of multiple options. The idea is to identify all the possible options, analyze all of these options according to the same set of criteria, assign a value to each aspect of each option (either through quantitative means or subjectively), and choose the option with the highest aggregate value. In theory, this highest-value option is the optimal solution. In the research literature, this process is known as "multiattribute utility analysis." (John Schmitt, "Complexity Theory Applied to Warfare." 1999. National Defense University).

s. **Principles Based Curriculum:** An evolving or ongoing update centered on key principles the organization deems imperative as enduring, while every day operations, or short term plans continually change processes and approaches to tasks. When translated to education curriculum this means that the teacher continually evolves how they will teach their students to think or work within the principles or key terms. A lesson plan under this approach is no more than an outline, with a listed objective or objective listed more as an aiming point, than a hard fast-required task.

t. **Competency Mapping:** This is the approach used by the Army to evaluate leadership, particularly at the Cadet and BOLC II levels. It is a systems analysis approach to leader development. It is a formal, top-down effort to identify, list, label, track, and measure competency descriptors. Competency mapping in the Army through the leader development process is known as in the Army as skills, attributes, and traits. "Once identified, numbered, and listed, they are usually broken down into subcomponents, which are also numbered, so they might be associated with the broader competency area or cluster of competencies. The mapping aspect comes into play when the competency areas are mapped to training and educational objectives and events, and then ultimately to desired leadership behaviors. Mapping models appear very comprehensive (or at least impressive due to their voluminous nature) due to the multiple linkages depicted in the map. They might be displayed in elaborate hierarchical diagrams or multiple foldouts or some other fashion designed by the administrators of the process. With their elaborate tracking mechanisms, the models also promise horizontal and vertical integration in the development of leadership competencies throughout organizational levels and educational institutions. Competency mapping is particularly appealing to analytically oriented decisionmakers." (Reed, Bullis, Collins and Paparone, "Mapping the Route of Leadership Education: Caution Ahead." 2004. *Parameters*).

u. **Single Loop Learning:** where the leaders and the organization observe the consequences of action (e.g., experimenting with a leadership competency map) and then ask for feedback to gain knowledge as to its effectiveness (e.g., whether it helped in developing leaders). The organization then adjusts its subsequent action to avoid similar mistakes (or deviations from what an ideal list or map should do) in the future. An example are policy, regulations or laws created to prevent the problem from occurring in the problem. According to organization behaviorist Chris Argyris of Harvard University, single-loop learning appears to solve problems, but ignores the issue as to why the overall solution was sought in the first place (e.g., What problem were we trying to solve when we decided that leadership competency maps would solve it?). (Chris Argyris, *Strategy, Change, and Defensive* Routine. 1985. Pitman).

v. **Double Loop Learning:** Is a higher-order form of awareness. It bypasses the single feedback loop of the top-down approach. Double-loop learning requires a multiple lens strategy that facilitates "knowledge of several different perspectives and forces the organization to clarify differences in assumptions across frameworks, rather than implicitly assuming a given set." (Paul A. Sabatier, *Theories of the Policy Process: Theoretical Lenses on Public* Policy. 1999. Westview Press & Christopher R. Paparone and James A. Crupi, "Insights for the Emerging Strategic Leader." February 2004).

w. **Frame of Reference ("FOR"):** Are c*ompetencies, factors, skills, abilities, etc.*, are terms used to characterize a 'state-of-being:' 'A Leader should be and do X, Y, & Z.' Thus, 'X', 'Y,' & 'Z' are one set of behaviors that spring from what we call a developmental 'Frame-of-Reference' (FOR). One might say that there are about as many 'frames-of-reference' as there are people. However, here we are using the term more stringently, meaning by it what flows from specific developmental levels (Kegan, 1982, 1994; Demick & Andreoletti). Such Stages describe how an individual views the world, by constructing his or her "real" world, from the inside outward. Developmental levels are intrinsically associated with cognitive dispositions (Jaques; Laske), and together with them form what we refer to as 'Frame-of-Reference,' or FOR. This internal FOR is what leads us to be of a certain 'order of mind,' to say, be, and do in *characteristic* ways at different times in our lives. Research shows that individuals FOR changes as they mature, and it is the fountain head from which many characterizations of what people do may flow. The Army can speak of a Center of Gravity that determines all manifestations of a current knowledge state (Lewis &Jacobs *Individual Differences in Strategic Leadership Capacity: A Constructive/Developmental View.* Phillips and Hunt (Eds.), *Strategic Leadership: A Multiorganizational-Level Perspective*. 1992. Quorum Books).

x. **Knowledge:** represents the combined product of Cognitive Development (CD) and Emotional Development (ED) and is the platform for Frame of Reference (FOR), the outcome state that, in turn, defines our patterns of behavior. CD and ED are the *vertical* growth dimensions and the nature of their nexus is ***absolutely critical*** to leader development. Another way of stating this is by way of an old, familiar adage that what is not thought 'in your gut' is not thought thoroughly. Whatever is transferred out of CD is abstract knowledge, in the same sense that a grammar constitutes abstract knowledge ('competence') in contrast to speech (performance) in real time. 'Performance' has an experiential component, and 'competence' does not – learning to ride a bicycle from a book without ever mounting one represents the CD component, while actually riding it provides KD's ED complement. Thus, CD and ED together provide a complete grasp of a person, object, situation, issue, etc. Consequently, focusing on CD alone, as many educational and training experiences do, leaves out a critical part of what is needed to make an understanding of the object under study or consideration whole. So, while CD => KD = competence.

y. **Social – Emotional Development** (ED), also a *Vertical* (across-time) growth process, is all about how comprehensively the individual has a grasp on himself or herself, and, therefore, of others as well. It reflects a person's 'Center-of-Gravity,' or the center of their emotions, actions, and decisions at some point in time. Whereas CD will determine the scale and scope of problems and operations an individual can effectively take on, ED determines, in large part, the why – people's motivation – of what they do. Put simply, it is all about 'WHAT SHOULD I DO AND FOR WHOM?' Successively higher achievement on this dimension determines how ***objective*** the individual can be about their strengths and limitations, which also reflects how open they are to learning and discovery about themselves and others. According to ED logic, people's self-identity, and feelings of self-worth, are defined by two distinct perceptions: their own, and what they believe others think of them, especially the views held by significant others. Our social identity springs from these two sources. Development on this dimension also results either in a focus on 'self' (Stages or levels 2 & 4) or 'others' (levels 3 & 5). Consequently, how much we are concerned about what others think of us varies systematically over the life span. The need to have agency over (control) situations, others, and even the self is directly related to ED progression.

z. **Five distinct Stages of ED**, roughly corresponding to CDs seven Strata, have been identified and described qualitatively and quantitatively. Four of them (with intermediate points totaling 15 stages & sub-stages) are classified as adult growth stages.

1) Most adults (about 55%) progress from an exploitative, self-centered 'teenage' Stage 2 into the broader 'community' oriented Stage 3. Far fewer (about 25%) reach a 'self-authoring, 'I own my values and principles of operation' Stage 4, and fewer still (< 10%) ever manage to achieve Stage 5, where the individual is able to construct true 'learning organizations' in themselves and the broader social context that can be self-sustaining. Because ED is so important, in relative terms, to leader effectiveness, we briefly describe these four adult Stages of this form of development. For each stage, we present a caricature, in the way of example, of what someone at this stage would be like, and describe the nature of the climate (or culture) that person might create, if put into a leader position.

2) ***Stage 2***. Is an 'I' stage, characteristic of teenage and early adulthood, although in our own culture, private sector profit concerns often drive many adults to revert to this stage, at least in their 'world of work.' Persons on this stage are highly, if not totally, steeped in their own wants or needs. They are impulsive, seek immediate gratification for those needs and wants, pay little attention to what others say about them, but will vehemently deny feedback that is not concordant with their own rigid self-perception. Above all else, they are interested in preserving the image they have established for themselves, regardless of how accurate it might be. When challenged, they can be very emotionally explosive and abusive to the feedback's source(s). S(he) readily understands others' perspectives, not out of empathy, but for the sake of knowing how to manipulate them to satisfy their own needs and ends. They will follow socially established (Stage 3) community rules and conventions when beneficial to them, or as long as they believe they will not be caught or punished. Thus, cheating, lying, deception, and falsification will be used, as necessary, to achieve self-set goals. They can work effectively and productively, if working alone and if their objectives happen to be aligned with those of the organization. In a Leader role, they will tend to micro-manage, exploit others, create ill will and mistrust, and misunderstandings will abound within the team or work group. Unbridled 'careerism' typifies this stage, for those individuals who manage to work their way into positions where they are given any degree of social authority.

3) ***Stage 3***. This is a 'We,' or a sense of community, stage. Self-image is determined entirely by what others think, whether these others are internalized or external others. Thus, people at this stage are highly, if not completely, identified with an external

socially established norm or standard that has been internalized. If rank, position, power, etc., are viewed as being important by the system that defines them, then they are important to this individual, as are appearances – social correctness. Obtaining status, in whatever terms the external reference is based upon, makes them highly competitive, but they will not stoop to the stratagems a Stag 2 person will to achieve their ends. They 'follow the rules,' and are 'above board' about winning and losing. It is very unlikely that they will 'see' or think beyond the established operational principles and values of 'their' organization. Because their image is so caught up in the status quo, they will be unwilling to take the risks necessary to change it, even if they can stand apart from their unit, group, or organization far enough to objectively assess what could make it operate more effectively. Hence, they do not make good change agents, either in the sense of seeing what needs to be done or in actually doing it. Any change they believe might be beneficial will be whatever is being echoed by the majority. In a leader position, this person will follow what they believe the norms are and will try to establish a climate accordingly. Yet, they may have a very tough time doing so, unless those norms lead them to simultaneously gain recognition, or credits, within the broader social structure. What contributes to the climate first is how it will affect their stature. Hence, the climate will be focused as much on individual achievement as it is on the group's collective effectiveness.

4) ***Stage 4***. This is an 'I" stage, but one much different from Stage 2. These individuals, rather than trying to become someone, have found themselves or 'come of age.' They have been successful while pursuing Stage 3 goals and have, in their eyes, earned the 'right' to stand above the crowd and be noticed. Consequently, they are highly, if not completely, identified with the value system that they have authored for themselves, yet they are very respectful of others for their competence and different values and beliefs. They find great difficulty in standing away from themselves to discover their own voids, but they will accept them when they are discovered. In this sense, they can be more self-accepting, relative to those less well developed. They can stand back, however, from the *Stage* 3 institution that previously defined them far enough to be objective about what they 'see.' Since they are far more objective, they can be good at apprehending what could be done to change the system of which they are a part and, once doing so, will have enough strength in their own center-of-gravity to weather the storms that may come about in actually instigating a change or transformation process.

The changes they author, however, will, more likely than not, be directed towards making the organization more responsive to themselves, authoring and moving it in directions approximating their own personal 'institution,' rather than one more universally self-sustaining. The climate they create will be one that follows the status quo, but taking on their own idiosyncratic values and operational principles as time passes. Since they are caught in their own FOR, they fail to appreciate the value of other FORs just as much, if not more, developed. This, by definition, limits the extent to which 'their' organization can learn-to-learn, grow, and further develop.

5) ***Stage 5***. At this stage, people are no longer strongly identified with any particular aspect or asset of their own FOR. They know that no matter what they do it will be limited. Consequently, they have come to realize that learning-to-learn, life long learning, is not just a platitude, but becomes their life. Collaboration and collegiality become the means for exchanging FORs openly, where exposure of self-limitations is routinely accepted as the only means to learn increasingly more about the self and others. This makes them potential unifiers – consensus builders at their level – and an invaluable resource for rethinking corporate goals, operational principles, and values that combine to create culture. Such a person is best positioned in billets where visionary risk taking and development of others, their organization, and the broader social context are called for. Such a person is often highly self-critical, even humble, seeing clearly the limits to which s(he) can impose their perceptions and convictions on others, as suggested. The climate they will create will be one that is open to exploration, risk taking within reasonable limits, and the emphasis, above all else, will be on promoting and sustaining growth and continued development of others and the organization as a whole (Jacobs, T. O., & Jaques, E. Leadership in complex systems. In J. Zeidner (Ed.)., *Human productivity enhancements: Vol. 2. Organizations, personnel, and decision making*. 1987. Praeger. Magee II, ed., *Strategic Leadership Primer*. 1998. USAWC).

aa. **Competence** is a necessary condition of acting 'knowledgeably,' it is not a sufficient condition for acting 'responsibly,' or with a full understanding of the social – emotional consequences, on whatever scale, of the course of action one chooses to pursue.

bb. **Intuition:** the way leaders translate experience into action. It enhances decisions at all levels, *provided experience is a reliable guide*, because it enables rapid decision making without conscious awareness or effort.

cc. **Experience** is a reliable guide when it is relevant to the contemporary and future operating environment and missions, and when it is filtered, processed and stored in the brain using enduring principles and useful, reliable thought models. When key elements of the operating environment, opponents, technology and missions change rapidly, *how* experience is translated into intuition is even more important.

dd. **Developing Intuition:** Requires learning the decision requirements of the job in various relevant mission contexts; practicing decision-making in such situations, repeatedly and in a variety of contexts; and reviewing and obtaining feedback on decision-making experiences with the help of *expert* coaches. Teachers help the learner detect and solve problems. They help them become aware of relevant factors in the environment, make sense of information, anticipate or detect problems that require options or solutions, identify potential internal failures, and develop "work-arounds" to correct disruptions and breakdowns. Moreover, most importantly, they continually reinforce the enduring principles and useful, reliable thought models at the foundation of an adaptable doctrine. The premium on quality coaching both during unit training experiences and during institutional education is now very high, and will only increase.

ee. **Cognitive Skills:** are critical to sound judgment in novel and complex situations. Sound judgment depends on reliable intuition and "thought models" to sort the routine from important problem nuance that demands critical thinking, and creative solution. Relational skills are critical to persuade and lead, negotiate and settle disputes, and for cooperation and teamwork.

ff. **Critical Thinking:** is the use of cognitive capacity, skills and strategies to achieve understanding, evaluate viewpoints, and solve problems. "Critical thinking skills are becoming especially important now as our world is changing at an ever-accelerating rate…Critical thinking skills are needed to adapt to a changing environment…" (Army Research Institute definition) The last statement is very true. Professionals must solve problems daily by adapting outdated methods. At the other extreme, ideas with bumper sticker names and passionate advocates like "net work centric warfare," and "effects based operations," bombard the profession daily. Knowing intuitively that an outside reformer's proposal is flawed is of little use once that idea generates political influence behind it. In addition, knowing intuitively, but not being able to articulate why with confidence, that a newly proposed official Army concept or doctrine is wrong does little good.

gg. **Creative Thinking:** is different from critical thinking, and equally important. Contests between and among open or organic systems are won through creativity rather than through the application of formulas. Experts

disagree about how creativity occurs, but they agree that it is something that improves with practice and experience. One can be creative in a familiar field and not in a new field. Experts also agree that creativity is something that humans will do better than computers for some time to come. Trainers and educators must pose problems and dilemmas that challenge creativity. Tactics, organizational design, and operational art all require creativity. The German's called it "fingerspitzengefuhl," a feeling in the tip of one's fingers. Napoleon called it "coup d'oel." It is not magic. It is a learned way of thinking.

hh. **Relational skills:** Relational skills include self-awareness and social skills. Self-awareness is an understanding of ones strengths & weaknesses. Social skills enhance interpersonal adaptability and build on self-awareness.

ii. **Social Skills** enhance interpersonal adaptability and build on self-awareness. Social skills are essential for working with diverse cultures and groups. Social skills include appreciating diversity, effective listening, conflict management, and developing others. They facilitate effective communication with broader audiences; assist in building collaborative networks; enhance consensus building and enable conflict resolution. The key is not to have specific lesson blocks on these subjects, but for faculty "coaches" to develop these skills throughout the curriculum and especially during role playing case studies with focused and deliberate coaching and feedback.

jj. **Self-awareness:** Self-awareness is an understanding of ones strengths & weaknesses. Knowing oneself enhances flexibility. You gain interpersonal agility and improve awareness of how best to contribute to a situation. "Self-aware and adaptive leaders are the basis for success in full spectrum operations. The greater self-awareness gained by assessment against measurable standards, the more adaptive the leader" (Army Training and Leader Development Panel, 2001). Self-awareness assessments must become integral to the curriculum. Schools must provide self-assessment tools and reinforce self-awareness efforts with comprehensive feedback -- 360 degree assessments, mentoring, coaching, and development plans.

SEA Observation Sheet

Adaptive Leaders Cadre Certification

The ability to make Observations is not done following a checklist but based on experience, training, education and certification in Adaptive Leaders Instructors Certification Course

Rater	Leadership PSN	Observed during:
LT	Time in Position:	Student led PT ☐ Garrison ☐ Classroom ☐
Date	Hour / Min	FTX 1 ☐ FTX 2 ☐
		FTX 3: Urban Ops ☐ Convoy LFX ☐

PART I - CHARACTER: Combination of values, attributes, and skills affecting leader actions

Using the rating scale provided below circle the number that best reflects your rating for each dimension.
IMPROVE comments in Part III are mandatory when a rating of "1" or "2" is indicated.
1 = Needs much improvement 2 = Needs some improvement 3 = Satisfactory 4 = Excellent
NA = Training situation (e.g., inadequate time) did not allow LT to display this quality often enough to rate.

ARMY VALUES					
1. ***Loyalty:*** Shows faith and allegiance to the Army; shows commitment to the unit and all Soldiers.	1	2	3	4	NA
2. ***Duty:*** Fulfills all obligations; takes initiative and carries out mission requirements in the absence of directions from others based on a sense of what is morally right.	1	2	3	4	NA
3. ***Respect:*** Treats all Soldiers with dignity and regard; is discreet and tactful when correcting or questioning others.	1	2	3	4	NA
4. ***Selfless service:*** Puts the welfare of other Soldiers first; gives credit for success to others; sustains team morale.	1	2	3	4	NA
5. ***Honor:*** Lives up to all the Army values; doesn't lie, cheat, steal, or tolerate those actions by others.	1	2	3	4	NA
6. ***Integrity:*** Acts honestly and does what is right legally and morally, especially in challenging and stressful conditions.	1	2	3	4	NA
7. ***Personal courage:*** Overcomes fear of bodily harm to successfully complete tasks or mission; takes responsibility for	1	2	3	4	NA

WARRIOR ETHOS ATTRIBUTES					
1. ***Perseverance:*** Works through adversity. Does not give up.	1	2	3	4	NA
2. ***Sets Priorities:*** Accomplishes tasks and mission according to appropriate priorities.	1	2	3	4	NA
3. ***Makes Tradeoffs:*** Makes correct tradeoffs between personal sacrifice and the appropriate application of tactics, techniques, and procedures to accomplish tasks or mission.	1	2	3	4	NA
4. ***Adaptability:*** Reacts smoothly to unexpected changes in tasks or mission; finds ways to overcome obstacles and/or improve team effectiveness.	1	2	3	4	NA
5. ***Acts Responsibly toward Other Soldiers:*** Continues to perform tasks or mission despite being weakened or incapacitated (e.g., wounded by enemy, accident, illness).	1	2	3	4	NA
6. ***Relies Appropriately on Other Soldiers:*** Works as a team member to accomplish tasks or mission and ensures the ability of the team to fight again.	1	2	3	4	NA
7. ***Motivated by a Higher Calling:*** Demonstrates clear understanding of the importance of achieving proficiency in Warrior tasks and collective missions.	1	2	3	4	NA

LEADER ATTRIBUTES / SKILLS / ACTIONS			
1. ATTRIBUTES: *Fundamental qualities and characteristics*	**1. Mental** 1 2 3 4 NA — Possesses desire, will, initiative and discipline	**2. Physical** 1 2 3 4 NA — Maintains appropriate level of physical fitness and military bearing	**3. Emotional** 1 2 3 4 NA — Displays self-control; calm under pressure
2. SKILLS: *Skill development is part of self-development; prerequisite to action*	**1. Conceptual** 1 2 3 4 NA — Demonstrates sound judgment, critical/creative thinking, moral reasoning	**2. Interpersonal** 1 2 3 4 NA — Shows skill with people; coaching, teaching, counseling, motivating and empowering	**3. Technical** 1 2 3 4 NA — Possesses the necessary expertise to accomplish all tasks and functions
	4. Tactical Demonstrates proficiency in required professional knowledge, judgment, and warfighting 1 2 3 4 NA		
3. ACTIONS: Major activities leaders perform; influencing, operating, and improving			
INFLUENCING: *Method of reaching goals while operating/ improving*	**1. Communicating** 1 2 3 4 NA — Displays good oral, written, and listening skills for individual / groups	**2. Decision-making** 1 2 3 4 NA — Employs sound judgment, logical reasoning, and uses resources wisely	**3. Motivating** 1 2 3 4 NA — Inspires, motivates, and guides others toward mission accomplishment
OPERATING *Short-term mission accomplishment*	**1. Planning** 1 2 3 4 NA — Develops detailed, executable plans that are feasible, acceptable, and suitable	**2. Executing** 1 2 3 4 NA — Shows tactical proficiency, meets mission standards, and takes care of people / resources	**3. Assessing** 1 2 3 4 NA — Uses after action and evaluation tools to facilitate consistent improvement
IMPROVING: *Long-term involvement in the Army, its people, and organizations*	**1. Developing** 1 2 3 4 NA — Invests adequate time and effort to develop individual subordinates as leaders	**2. Building** 1 2 3 4 NA — Spends time and resources improving teams, groups, and units; fosters ethical climate	**3. Learning** 1 2 3 4 NA — Seeks self-improvement and organizational growth; envisioning, adapting, and leading change

PART II - OVERALL NET ASSESSMENT: Taking into consideration all of the preceding values and attributes, circle the number that best reflects your overall rating:
2 3 4 NA

Name: **Date:**
Mission:
Observations:

Counseling date: **Student:** _____
Instructor name: **Instructor:**_____

SEA Observation Sheet

Adaptive Leaders Cadre Certification

Name: **Position:** **Date:**

Mission:

Observations:

Counseling date:

Instructor name:

Is this observation by a peer or Instructor ☐ ☐

Yes No

Student: _____

Instructor:_____

Peer:_____

SEA Observation Sheet
filled out (example) Instructor

Name: Lieutenant Jim Bob Smith **Position:** Squad Leader **Date:** 160600 June 2006
Mission: Link up with friendly unit to hand over SEA using Seminar DMG (in our classroom)
Observations:

Smith received my instructions, asked no questions, and immediately addressed squad of 8 people, using OPORD format, but left no time for questions, and did no rehearsals. He did designate a APL but no team leaders. He also failed to get any input or ideas from team members. He made up his own list to what to ask replacing unit liaison. Despite what the base OPORD said about enemy activity, He failed to address security issues, but still had the foresight to put his squad in a 360 degree security just outside the door, then took himself and his APL into the room and assumed the link up point was secure by just walking in. He met the role playing friendly unit, and became very frustrated when the player asked a long list of questions, and acted like he did not know what Smith was asking. The APL suggested some ideas, but Smith did not want to listen, and only took incomplete notes from the friendly Soldier. It was at this point that I decided not to induce a neutral party coming into the room. Smith was overwhelmed by events.

Summary of AAR and counseling: Members suggested several ideas on what to ask and coordinate for. Smith only complained to the group and me in mentorship session that this was to hard for him, and he had not been exposed to it before. He said if he had had a chance to study for battlespace handover and review his TLPs he would have "passed". Need to observe Smith for his social judgment and self-awareness evolution in his next SEA

Counseling date: 160900 June
Instructor name: Sergeant First Class Allen Wood, TAC BOLC II
Is this observation by a peer ☐ Yes ☑ No

Student: _2LT Smith_____
Instructor: SFC Woods_____
Peer:_____

SEA Observation Sheet
filled out (example) by peer(s)

Name: Lieutenant Jim Bob Smith **Position:** Squad Leader **Date:** 160600 June 2006
Mission: Link up with friendly unit to hand over SEA using Seminar DMG (in our classroom)
Observations:

Smith ignored everything we tried to tell him, we knew what the mission was, but did not know the enemy had changed, based on how he rushed through everything and then just walked into the room without considering any security. One of our other members was four years prior service and had done this kind of mission in Iraq, but Smith did not even ask him (he knew because we had an exercise yesterday where we had to find out about each other when we were left in a room for a hour. though I could not see anything I was left to observe down the hall outside the room, Smith was pissed off when he called us together for the AAR and acted like it was our fault that we did not tell him anything. It is the second SEA since we got here yesterday and his first one, maybe he will adapt?

Counseling date: Observation made on June 16th in the morning
Instructor name:
Is this observation by a peer ☑ Yes ☐ No

Student: _2LT Smith_____
Instructor: _____
Peer:_2LT PJ Grant_____

Evaluation is Evolutionary

Students get participate in several SEAs

At designated points, throughout course instructors determine using an array of tools, the SEA observation card being one of them who needs to be challenged and at what level. At the end the instructors "RACK AND STACK"

Name: Lieutenant Jim Bob Smith Position: Squad Leader

Date: 160600 June 2006

Mission: Link up with friendly unit to hand over SEA using Seminar DMG (in our classroom)

Observations:

Smith received my instructions, asked no questions, and immediately addressed squad of

8 people, using OPORD format, but left no time for questions, and did no rehearsals. He did designate a APL but no team leaders. He also failed to get any input or ideas from team members. He made up his own list to what to ask replacing unit liaison. Despite what the base OPORD said about enemy activity, He failed to address security issues, but still had the foresight to put his squad in a 360 degree security just outside the door, then took himself and his APL into the room and assumed the link up point was secure by just walking in. He met the role playing friendly unit, and became very frustrated when the player asked a long list of questions, and acted like he did not know what Smith was asking. The APL suggested some ideas, but Smith did not want to listen, and only took incomplete notes from the friendly Soldier. It was at this point that I decided not to induce a neutral party coming into the room. Smith was overwhelmed by events.

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Counseling date: 160900 June Student: _2LT Smith_____

Instructor name: Sergeant First Class Allen Wood, TAC BOLC II

Instructor: SFC Woods_____

Is this observation by a peer

Peer:_____

Yes No

SEA incorporate(s) many task(s)

Adaptive Leaders Cadre Certification

The other three components Of SEA
- Instructor facilitation
- Is student evolving, at least trying to solve
- Mentorship/AAR =360 Assessment

Lessons Learned

Student Experience Level

Components of Adaptability

SEA development

Tool Selection

Instructor preparation

Execution Of SEA

SEA development

Feedback Loop from Previous SEAs

Resources & Time

Tasks to be Incorporated

Instructor pick(s) case studies to use during SEA

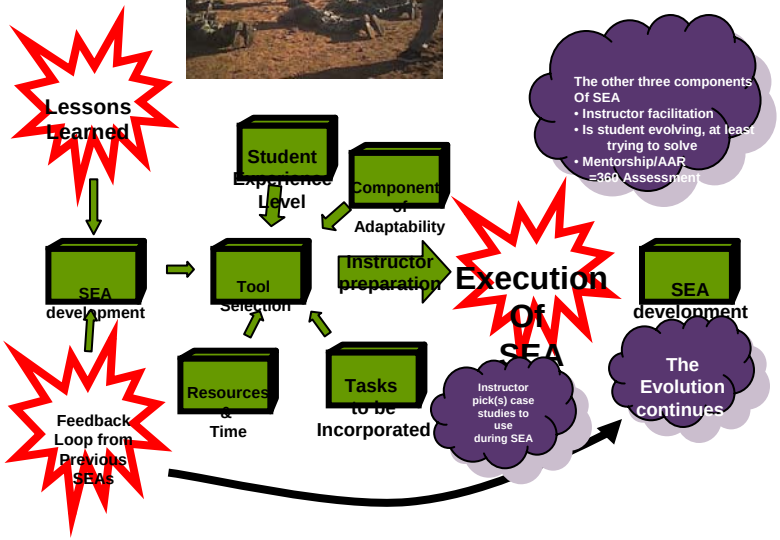
The Evolution continues

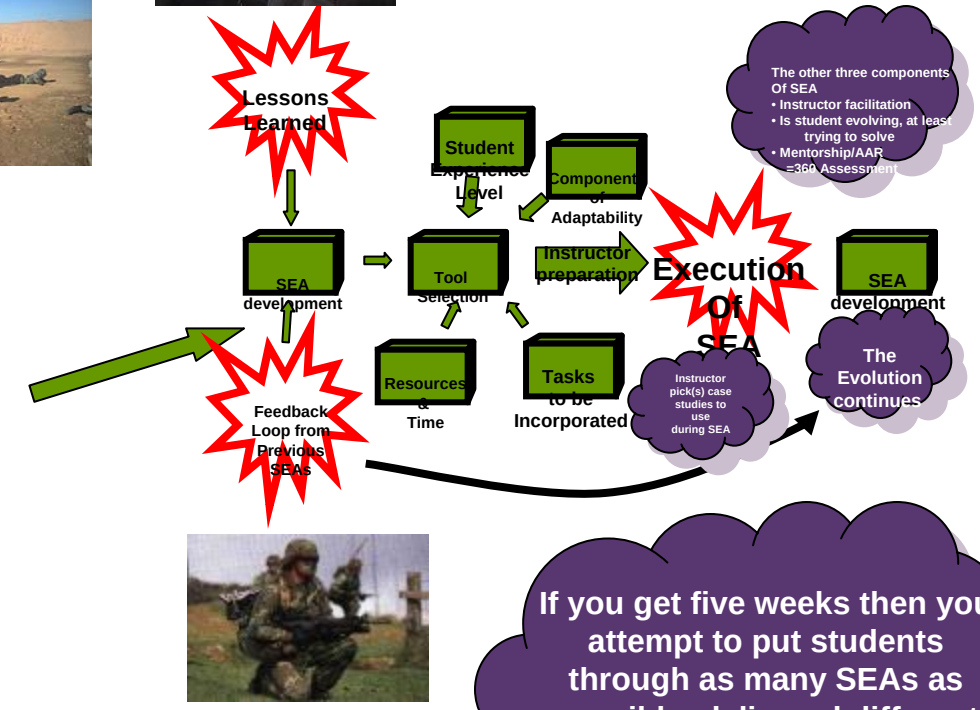
AnnexC

Evolutionary Evaluation

Adaptive Leaders Cadre Certification

Instructors Teaching-Facilitating-Mentoring using different SEAs employed with different tools





If you get five weeks then you attempt to put students through as many SEAs as possible, delivered different tools, then assess who has become adaptive

Time is not a restraint but a factor

AnnexC

Annex D

Georgetown University
Army ROTC, Military Science
Leadership Skills III– MLSC 114
Course Syllabus – Spring 2005

12 December 2004

IT IS IMPORTANT THAT YOU READ THIS ENTIRE SYLLABUS AS YOU WOULD AN OPORD. I WILL DEVIATE FROM THIS DOCUMENT ONLY IF FORCED TOO

Primary Instructor:	**Major Donald E. Vandergriff.** Assistant Professor of Military Science, Georgetown University, Army ROTC. Office location: CAR BARN, Room 305, telephone 202-687-7065. Office hours are 0900-1500 daily or by appointment. E-mail: dev@georgetown.edu
Secondary Instructor:	**MSG Rob Frye**, Assistant Professor of Military Science, Georgetown University Army ROTC. Office location: CAR BARN, Room 305, telephone 202-687-1240. E-mail: rmf23@georgetown.edu
Class Times:	Section 1 – Wed, 0830 – 1005 Car Barn, Cadet Lounge. Physical Training – Mon, Wed, and Fri – 0650 – 0800 Section 2 – Thur, 0830 – 1005. Cadet Lounge. Lab see, calendar on back pages. Physical Training – Mon, Wed, and Fri – 0650 - 0800
Credits:	No credits will be granted for MLSC 114, **but it is mandatory in order to progress to your MSIII year and receive commission. So, while it does not give you credits toward a degree, it does go toward getting a commission, granted by Congress, in the United States Army.**
Office Hours:	Army ROTC cadre are available every weekday from 0800 – 1630 for appointments. Otherwise, students may arrange to meet with the instructor by appointment.

Course Description. This is a combat squad leader's course. I expect you to be proficient in small unit leadership, understanding the role of soldiers and squad level tactics by the end of the school year. We will focus on your leadership skills in decision making, physical fitness and how a team works to accomplish missions in garrison. We will also have fun.

Course Objectives. End state is to walk into the MS III class well prepared for operating as a small unit leader on the modern battlefield. I have broken down my goals for you by the end of the spring semester. I will use results from fall semester to track your progress. We will go over this at the end of spring semester, during your counseling. This includes:

- Physical Fitness:
  - Score a 300
  - 6 correct pull ups
  - Complete 12-mile footmarch in three hours or less without a pack
  - CWST: Screening with swimming classes scheduled (next term) for failures
- Common Task Training
  - Demonstrate proficiency in the tasks during formal hands on evaluation
- Leadership
  - Demonstrate an understanding of Army leadership
    - Lead by example
    - Be tactically and technically proficient
- Tactics
  - Proficient at Team Leader Task
    - React to contact Battle Drill
    - Lead Special Teams (POW & Search, Aid and Litter)
  - Display an understanding of the Law of War (Geneva and Hague Convention)
  - Display an understanding of Battle Drills 1 thru 5 at the squad level (FM 7-8 and Last Hundred Yards)
  - Display Knowledge of Squad level operations:
    - Reconnaissance
    - Passage of Friendly Forward Line
    - Ambush
  - Familiarized with Platoon Level Operations
  - Familiarized with 4th Generation
- Proficient on Squad TLPs
  - Construction and use of Sand Tables
  - Warning Order
  - Operation Order
  - Fragmentary Order
- Land Navigation
  - 70% or Higher on Written Test
  - Find 70% of points on Day & Night Course
- Display Proficiency in marching a squad of soldiers/cadets using:
  - Forming the squad
  - Changing interval while in line
  - March the squad
  - Changing direction of the column

Purpose and Methodology: Spring semester is designed to build a foundation for the MS III year, so cadets can continue to evolve in the following year with Leadership Development Program (LDP), Land Navigation, Tactical Leadership, Garrison Operations and Training. The

course will develop the skills necessary to not only complete, but do well at Advanced Camp and advance in the ROTC program, and build a solid foundation as an officer. Field Training Exercises (FTX's) and extracurricular activities also add to cadet duties and responsibilities. Your participation is critical this semester to the success of the program, and to mature you as a leader. Our nation needs you, and its Soldiers deserve the best leaders.

Numerous references are used in this class. All reference material and books except John Poole's **Tactics of the Crescent Moon: Militant Muslim Combat Methods**. You must buy the **Tactics of the Crescent Moon** and **Sling and the Stone, On War in the 21st Century**. You may also want to reference **The Last Hundred** Yards. They can be acquired in the Fort Myer Clothing Sales or PX book store or amazon.com, or can be ordered from Mr Poole at posteritypress@aol.com, and let him know your one of my students. This will be your text book for the rest of the year. Uniforms and equipment will be provided by the ROTC department.

Course Grading Evaluation Criteria:

EVENT	POINT VALUE	PERCENTAGE
Participation		
Lab	25	2.5%
Class	25	2.5%
PT	25	2.5%
FTX	25	2.5%
APFT	100	10%
Squad briefing x 2	200	20%
Land Navigation Quiz	100	10%
Land Navigation Course	100	10%
Leadership Assessment	100	10%
Mid-term paper	100	10%
Final Exam	200	20%
Total		100%

Participation (Lab, Class, PT, FTX): It is critical that you attend every ROTC class and lab during this semester. Because we use every minute of your time during class, labs, and FTXs, I do give homework, reading and preparation for the next week's mission (if your in leadership), so **missing any class or lab will put you behind.** Each class and lab builds on the next class and lab. It is not like your normal college class, where you can borrow notes from a friend, or spend extra time reading on the subject.

The format for spring semester 2005 will be different. First week we will meet to lecture, handle administrative choirs, talk lessons learned conduct TDGs. At the end of this class, which occurs every other week, the chain of command will be handed a Platoon OPORD and ROE for the next week's class (see leader matrix once you all return from break, and I know the composition of each class). The following week, you must have your squad ready, at a designated place and LD when the OPORD said too, on the designated route, prepared to conduct the mission. Training will all take place in the Georgetown area, under coordination with local police. AAR will be conducted at the end of the mission. The squad leader for that mission will receive a blue card.

Labs are being determined by the cadre and MS IVs. One proposal is twice a month, the other is once a month with the other lab being planned and executed by each company. Stand by for more information.

Attendance and participation at class, physical training (PT), Labs, and the FTX, and will encompass 10% of the final grade. Also, to miss PT, Class, Lab or an FTX you must submit a written excuse five working days before the event takes place. PT takes place at Yates Field house, George Washington, or Catholic from 0650-0800 Monday and Wednesday. Friday is combat PT day. Every other week will be a foot road march with equipment. As a MS II you are required to attend PT a minimum of three days per week. If you get sick just prior to the event, then you have to provide evidence of your illness with a doctor's or clinic note. **If you receive an excuse from myself, five days or longer, you may makeup missed work.**

Field Training Exercises (FTX) and Special Events: Attendance at all Field Training Exercises is mandatory for all MS IIs to fulfill the class requirement. Participation in the the MS II Battalion Field Training Exercise will constitute 2.5% of the final grade. Also, your leadership abilities will be graded this semester. Only the instructors can make exceptions to attendance at FTXs.

Field Training Exercises (FTX) Dates:

29 January	Squad STX	Fort Belvoir
25-26 February	Land Nav FTX	Fort Belvoir
2 April	MS II FTX	Fort Belvoir
29 April	Military Ball	Fort Myer

Army Physical Fitness Test (APFT): I expect every MS II to achieve a 300 on his Record APFT by the end of the school year. The goal of being physically and mentally fit is critical in modern combat. A diagnostic APFT will be given every month to determine progress, and a final test will be given 20 April 2005 which will count for 10% of the grade. You must pass the APFT and be in accordance with AR 600-9 height and weight standards to continue on to your junior year. Failure to do so will result in disenrollment. On the other hand, for each ten additional points on the extended scale (I round up-say you get 304 on the extended scale, I would still give you an extra point) you will receive one additional point on your final grade. Remember, to score on the extended scale, you must max all three events on the APFT. The grading scale for the final APFT is as follows:

Record Fitness Test Score	**Points Earned**	**Grade**
301 or higher	one additional point for each 10 on the scale	
300	100	A
290-299	90	A-
279-289	80	B
250-278	50	F
180-249 (minimum 60 pts per event)	40	F
179 and below	0	F

Squad leader briefings: I or an appointed representative will evaluate two squad level orders this semester. You will be given a platoon OPORD prior to class, and then expect to tell the MS

IV TAC and me where your squad OPORD on a sand table will be conducted prior to the mission the next week. I will be looking for presentation skills and familiarization with FM 7-8 and **the Last Hundred Yards**. The other one will be prior to or during the MS II "Combat Squad Leader's" FTX 2 April 2005.

Land Nav. Written Test: A written test covering Basic Land Navigating, 10% of the final grade.

Land Nav. Test: The Land Navigation course on 25-26 Feb 05 is your only opportunity to score 10 points of your total grade (I will not do make ups).

Mid-term paper: You will write a paper, 5-7 pages on COL Hammes book, **Sling and the Stone**. This paper is due 23-24 FEB. It is not a book review. But I want something original that places you as a lieutenant in the environment that COL Hammes talks about, and how you would prepare yourself, and react. The more imaginative, and well written, better the grade. More guidance to follow, but I will e-mail you some subjects to pick from in a couple of weeks, so if you want to read the book and start over the break, you can.

Final Examination: One examination will be given during the semester, 20% of the final grade. The exams will be a Tactical Decision Game, involving the writing of a Squad OPORD under a time limit, and responding to a changing enemy situation. If you are unable to take an examination you must coordinate an alternate date with your instructor at least 72 hours ahead of the scheduled test date. Failure to take a scheduled examination without prior approval from your instructor will result in a 10-point deduction from the test grade.

Leadership/Our Assessment: I will give you points from our position of experience on how we think you contributed to the class, made decisions and helped your peers. The MS IVs will also assess your performance. We go down each person and asked how that person has evolved as a leader, do they have potential? You will receive two blue cards as squad leader this semester, one during class time leading a patrol on a mission in Georgetown, the other at the MS II squad FTX on 2 April 2005.

Tactics Academy: Every Wed and Thur, I will be available from 1400hrs to 1500hrs to do TDGs, OPORDs, whatever you want to go over and get stronger. If your going to attend please e-mail the Monday of that week to let me know and schedule the period in the conference room.

Extra Credit: Extra-credit may be earned through participation in battalion organizations or other events prescribed by the class instructor. The following is a list of areas that extra credit may be applied toward the final grade:

Area	Points
Assist as OPFOR during the BDE FTX	50
Maneuver Warfare Club (3 or more events)	50
Color Guard (3 or more events)	50
Ranger Club (mid Jan-April, ea. Tue-must do all)	50

LEADERSHIP SKILLS MSII
CLASS SCHEDULE-SPRING SEMESTER 2005

CLASS	CLASS TOPICS/Reading	DATE
Ranger Club begins on 18 February and regular PT on 19 February 2005		
Class 1	Review of Semester OPORD example for a platoon humanitarian mission Initial Counseling did you follow your break plan Come prepared to talk about the leadership of CPT Dick Winters from **Band of Brothers**, "Crossroads" PCI (bring your equipment in order for me to PCI you by hand book, LBE Rucksack and packing list) Issue OPORD for next week's mission Read **Tactics of the Crescent Moon** (pp. XIII through Introduction XXVIII) known herein as **Crescent Moon**	12-13 JAN
Lab 1	Introduction Lab In-processing, Training summary,	14 JAN
PT	PT begins	17 JAN
Class 2	Conduct security patrol (location TBD) (per OPORD from previous week) AAR	19-20 JAN
Lab 2	TBD	TBD
PT	APFT PTs with equipment permitted to class	26 JAN
Class 3	"A Heritage of Unconventional Warfare" TDG Also review www.d-n-i.net "4th Generation Warfare" Read 3-48 **Crescent Moon**. Issue PLT OPORD for week 2-3 FEB Review Poole, **Last Hundred Yards**, pp.. 43-60.	26-27 JAN
Lab 3	TBD	28 JAN
FTX	Squad STX (Fort Belvoir)	29 JAN
Class 4	Seize insurgent leader at safe house (per OPORD from previous week) AAR	2-3 FEB

Lab	TBD	4 FEB
Class 5	"Islamic Guerrilla Tactics" TDG Read 49-116 **Crescent Moon** Issue PLT OPORD for week 16-17 FEB Review Poole**, Last Hundred Yards**, pp. 61-90	9-10 FEB
Lab	TBD	11 FEB
Class 6	Conduct a reconnaissance of an insurgent cache (per OPORD from previous week) AAR	16-17 FEB
Lab	TBD	18 FEB
PT	APFT	23 FEB
Class 7	Land Navigation test Review notes on Land Navigation Receive OPORD for 2-3 March Paper due Go over current OML for schools	23-24 FEB
FTX	Land Navigation course (Fort Belvoir)	25-26 FEB
Class 8	Move to and establish OP (per OPORD from previous week) AAR Issue OPORD for MS II FTX	2-3 MARCH
Class 9	"More Recent Afghan Resistance," "The Iraq opposition" TDG Read 117-172 **Crescent Moon**. Review Poole, **Last Hundred Yards**, pp.. 43-60.	9-10 MAR
Class 10	"More Recent Afghan Resistance," "The Iraq opposition" TDG Read 117-172 **Crescent Moon**. Issue PLT OPORD for week 2-3 FEB Review Poole, **Last Hundred Yards**, pp.. 43-60. (issue PLT OPORD for next week)	16-17 MAR

Class 11	Move to and seize cache (per OPORD from previous week) AAR	23-24 MAR
Class 12	"How Islamic Guerrillas Are Trained," "The Muslim Militants Pattern" TDG Read 173-210 **Crescent Moon**. Issue PLT OPORD for week 6-7 APR Review Poole, **Last Hundred Yards**, pp.. 91-119.	30-31 MAR
Lab	TBD	1 APR
FTX	MS II FTX (Fort Belvoir) 0500-1700 small unit patrolling against OPFOR (more to follow)	2 APR
Class 13	"Presence Patrol" (per OPORD from previous week) AAR	6-7 APR
FTX	Brigade FTX (Fort AP Hill) MAJ V leaves after class on 7th OPFOR will do 8-10 APR	7-11 APR
Class 14	"The Response must be Unconventional," "The Tactical Part of the Equation" TDG Read 173-248 **Crescent Moon**. Review Poole, **Last Hundred Yards**, pp.. 43-60.	13-14 APR
PT	APFT for grade	20 APR
Class 15	Final Examination/Peer ratings	20-21 APR
Class 16	Sign up for final counseling Will sign contract for waiting list for schools during summer break	25-29 APR
Lab	Final Lab: Skits, awards, Class A Inspection	29 April
FTX	Military Ball (Fort Myer)	29 APR

Request for Excused Absences:

1. There may be extenuating circumstances which may require a cadet to be excused from a particular ROTC activity. When that occurs, MS II cadets must provide their instructor with a memorandum requesting an excused absence. Cadets should request an excused absence as soon as they learn that they have a conflict, however, the memorandum must be submitted at least five working days prior to the event. The only exceptions to this are those circumstances which can be categorized a s personal emergencies.

NO MEMORANDUM, NO EXCUSED ABSENCE

2. Memorandums submitted for excused absences must be typed and follow format below:

ATOA-DVA-GU DATE

MEMORANDUM THRU Cadet Company Commander

FOR Assistant Professor of Military Science, Georgetown University, The Carbarn, Suite 305, 3520 Prospect Street, NW, Washington, DC 20057

SUBJECT: Request Excused Absence

1. Request I be allowed to miss training/FTX/etc…on (date).

2. State the specific reason why you need to miss the event.

3. Identify your plan for making up the missed event.

4. Provide a good phone number where you can be contacted for approval/disapproval of your request.

TYPED FULL NAME
Cadet Rank, Branch
Position

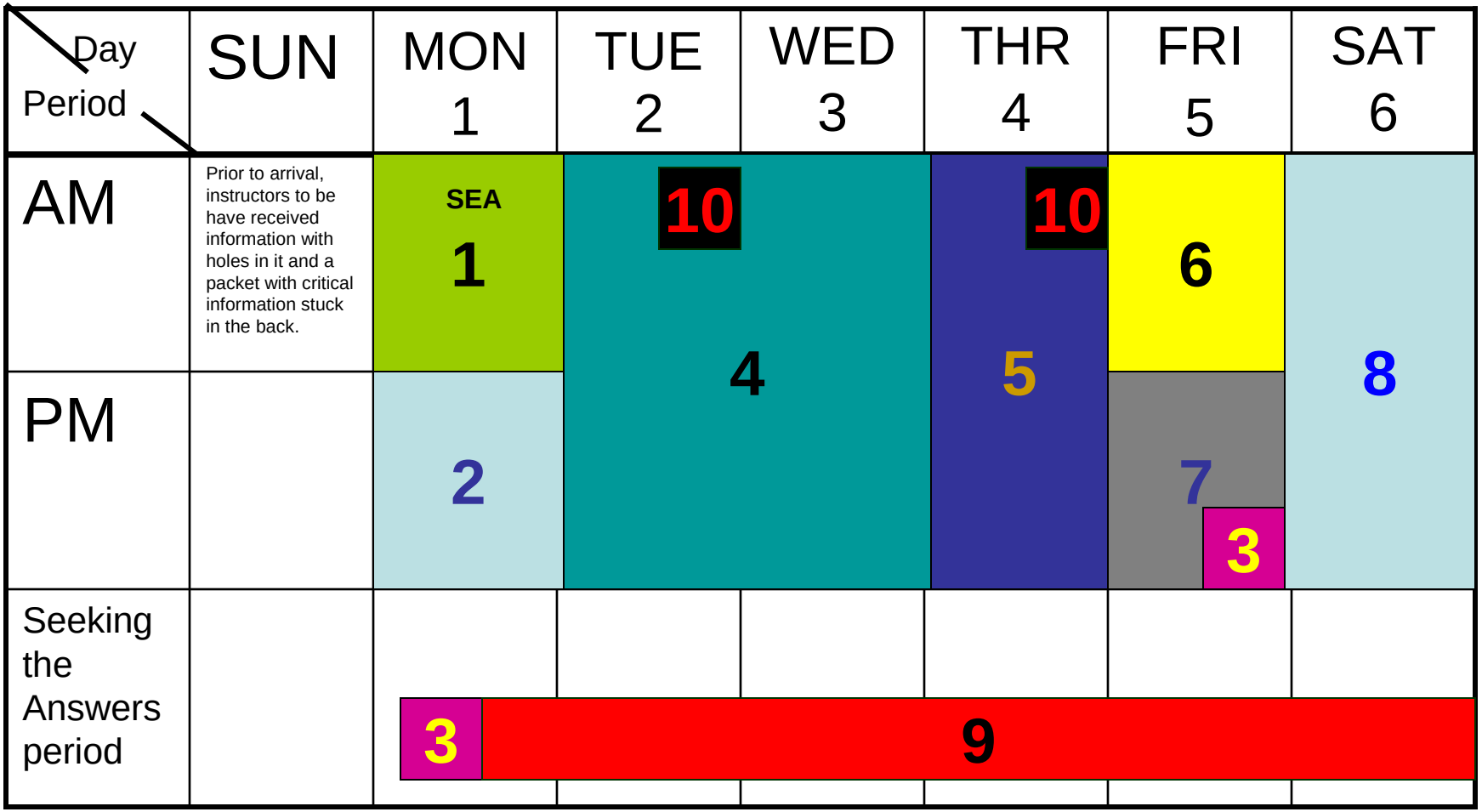
_____ Approved
_____ Disapproved

DONALD E. VANDERGRIFF
MAJ, AR
MS II Instructor

Five-week Certification Course

Adaptive Leader's Course

Week 1
Adaptive Leaders Cadre Certification



- **Time periods are not rigid—train to evolve adaptability not time**
- **Details on each period to follow**
- **Responsibility of cadre to eat, make class start times, manage accountability, and show with proper books, materials and equipment**

Key Week 1

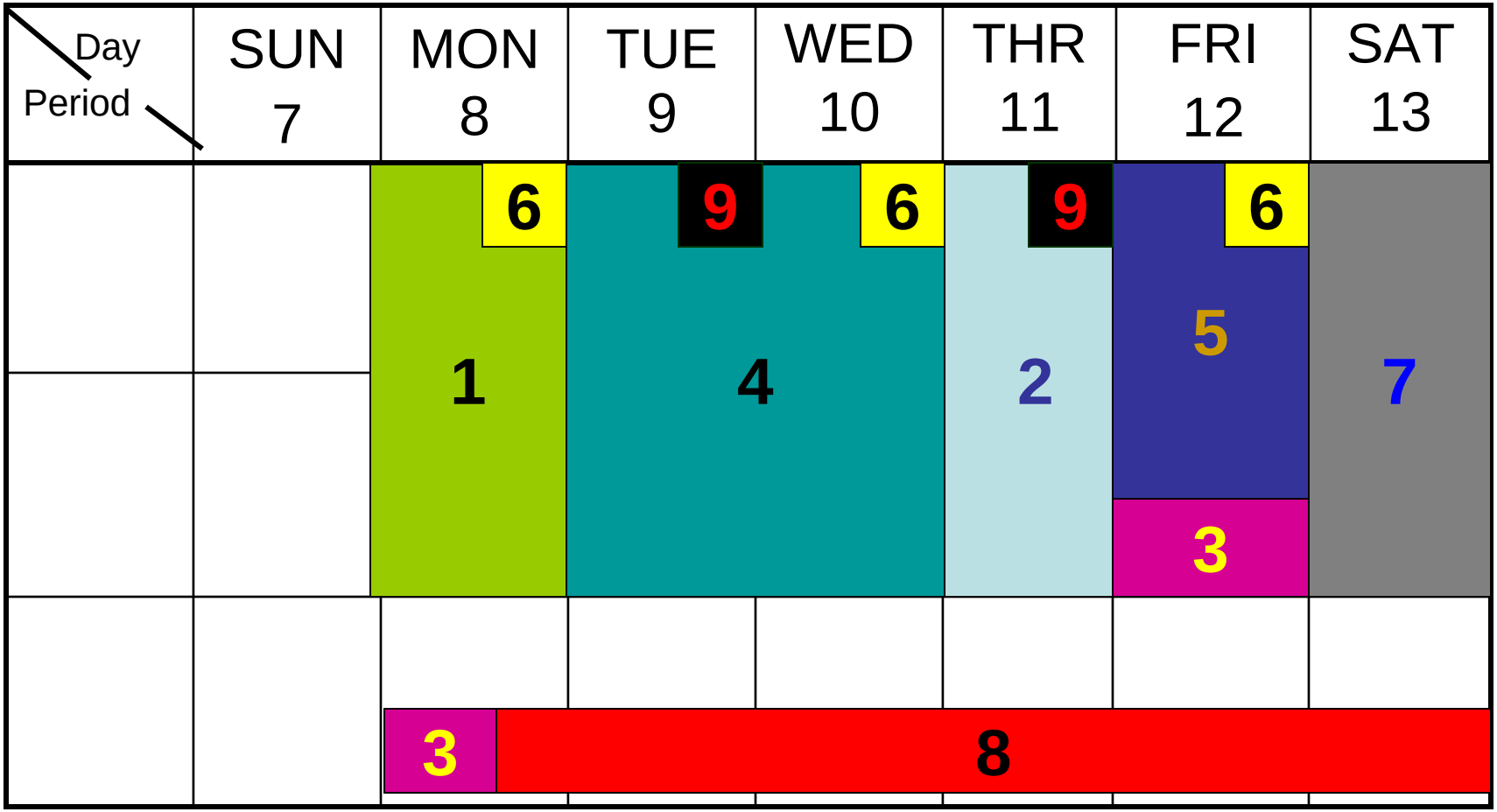
Adaptive Leaders Cadre Certification

- 1- SEA “Introduction to adaptability- “who read and who listens?”
- 2- Welcome to the Adaptive Leader’s Teaching Certification Course- “You need to be prepared to un-learn to learn here.” Demonstration “how to teach” – “What right looks like” in order to get certified as a teacher of adaptability week 5.
- 3- Assign critical thought piece, paper due Friday
- 4- “Breakthrough Thinking” Dr. Steven Stewart
- 5- Situational Enablers of Adaptability (SEAs) and the tools to facilitate them
- 6- SEA “Combat PT” – “Get from here to there”
- 7- SEAs using DMGs
- 8- Make up M16 qualification for those who did not get it accomplished prior to arrival
- 9- Reading period studying case studies centered around “Stability Operations” and “Cultural Awareness.” Also for those certification tasks not completed prior to arrival, must be done during this period- Certification will be required by completing on line short courses.
- 10-Combatives

Students are left to organize and solve how they will eat, in-process and establish themselves in their quarters. This information is enclosed in forwarded packet as far out as possible without changes. Students are also organized into 11 man squads assigned to a “Facilitator”

Week 2

Adaptive Leaders Cadre Certification

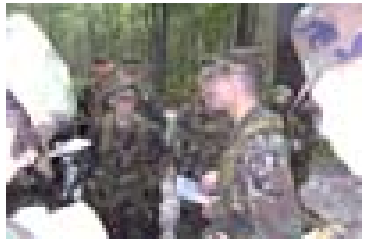


- **Time periods are not rigid—train to evolve adaptability not time**
- **Details on each period to follow**
- **Responsibility of cadre to eat, make class start times, manage accountability, and show with proper books, materials and equipment**

Key Week 2

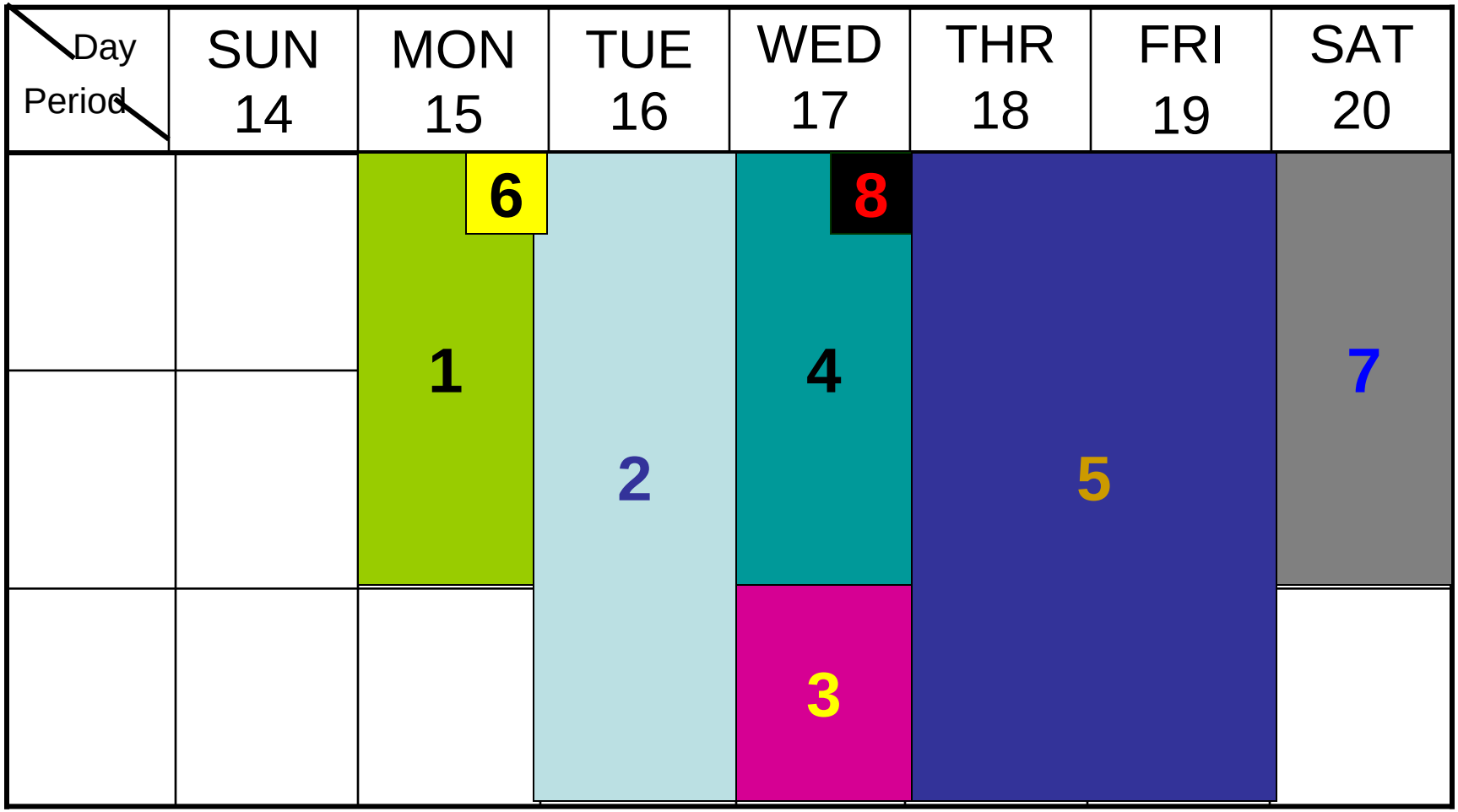
Adaptive Leaders Cadre Certification

- 1-SEA: “Character development”-Ethics situations (ref. COL George Reed & Major Mark Tribus) Classroom situational
- 2- Students practice facilitating using a DMG
- 3-Assign critical thinking piece, discuss upon return from field on Friday
- 4-Center of Teaching Excellence (USMA)
- 5-SEA: “Seize it first!”-leader/team competition, free play, force on force with paint guns
- 6-SEA: “Improvise” -Combat PT
- 7- Make up M16 qualification or task certification for those who did not get it accomplished prior to arrival
- 8- Study and reflect on case studies centered around “Personal Recovery” and “Battlespace Handover.” Also for those certification tasks not completed prior to arrival, must be done during this period-Certification will be required by completing on line short courses, or up to squad & teams on how to accomplish, such as learning about U.S. weapons
- 9-Combatives



Week 3

Adaptive Leaders Cadre Certification

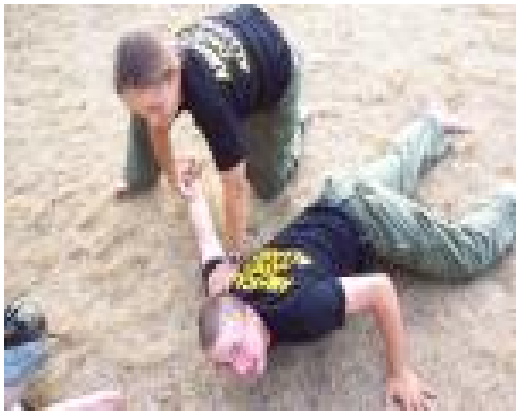


- **Time periods are not rigid—train to evolve adaptability not time**
- **Details on each period to follow**
- **Responsibility of cadre to eat, make class start times, manage accountability, and show with proper books, materials and equipment**

Key Week 3

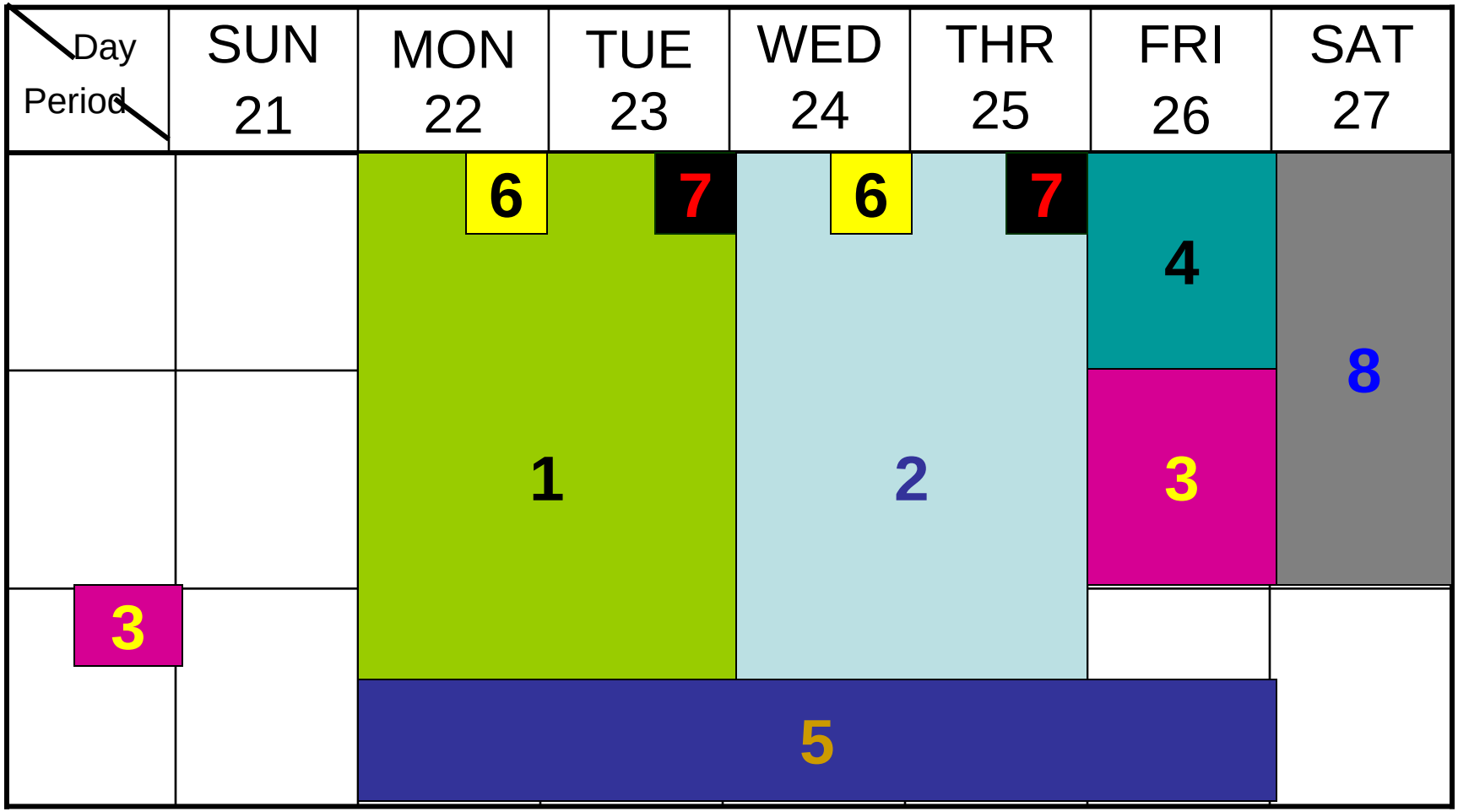
Adaptive Leaders Cadre Certification

- 1- Learning how to use a 360 degree assessments. SEA combat and non combat DMGs facilitating by students
- 2-SEA “Just Know its there” Team combat land navigation (land nav. done in the context of a situation). Mission given previous Saturday- First part of SEA is “How to get there?”
- 3-Mission prep for next SEA
- 4-OODA loop Chet Richards
- 5-SEA MOUT exercise, tool: force on force free play (combat and non combat SEAs)
- 6-Combat PT
- 7-Opportunity for students to practice facilitating
- 8-Combatives



Week 4

Adaptive Leaders Cadre Certification



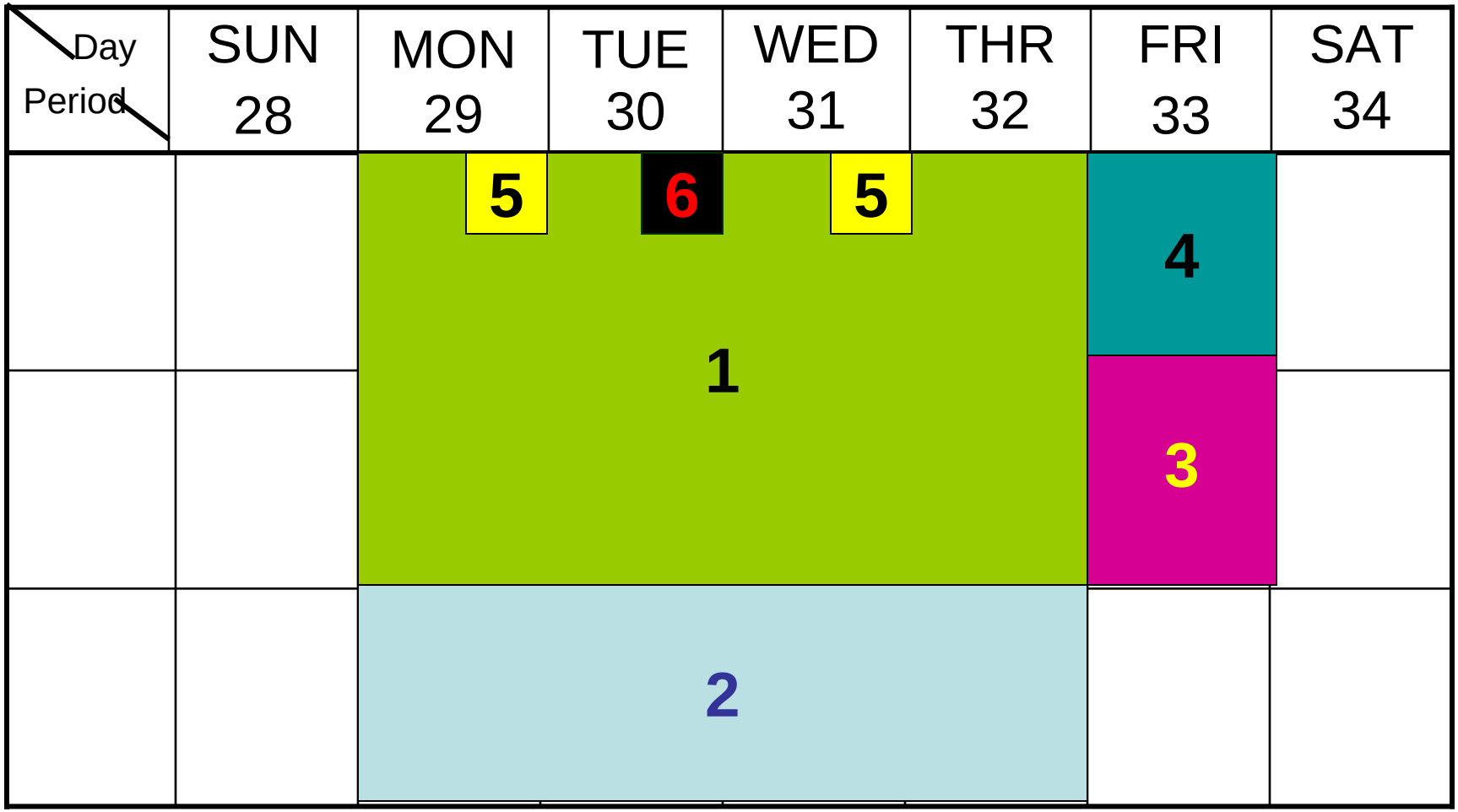
- **Time periods are not rigid—train to evolve adaptability not time**
- **Details on each period to follow**
- **Responsibility of cadre to eat, make class start times, manage accountability, and show with proper books, materials and equipment**

Key Week 4

Adaptive Leaders Cadre Certification

- 1-Institute of Defense Analysis "Learning to Adapt"
- 2- SEAs (combat and non-combat) 360 degree assessments of students in leadership positions
- 3-Assign subject for critical thought, discuss papers on day 17
- 4-Convoy operations
- 5-Reflection & Study time
- 6-Combat PT
- 7-Combatives
- 8-Practice facilitating (instructors available)

Week 5
Adaptive Leaders Cadre Certification

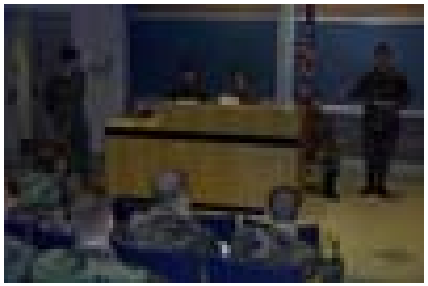


- **Time periods are not rigid—train to evolve adaptability not time**
- **Details on each period to follow**
- **Responsibility of cadre to eat, make class start times, manage accountability, and show with proper books, materials and equipment**

Key Week 5

Adaptive Leaders Cadre Certification

- 1-Teacher certification (as outlined on slide 11)
- 2-Reflection and study time
- 3-Outprocessing
- 4-After Action Review of course
- 5-Combat PT
- 6-Combatives



Annex F

Combat PT

I. <u>Purpose</u>: One the principles of an ALC is that "every moment of the day, every task, offers an opportunity to teach adaptability, how to think, in places you never imagined." (How to Teach Adaptability, page 10). One of the most glaring downfalls of most existing U.S. Army leader-centric programs is that they waste their physical fitness time as an opportunity to develop adaptability.

This annex provides ideas on how to conduct Combat PT in an ALC.

II. <u>Summary</u>: I conducted an analysis of 39 ROTC programs throughout the United States from September 2004 to May 2005 as part of the "Raising the Bar: Creating Adaptive Leaders to Deal with the Changing Face of War" study. During this time, I also asked and received PT schedules from most leader-centric leader courses. I found that the tasks conducted in physical training are effectively addressing most of the physical readiness components.[1]

However, in regards to promoting Adaptability in an ALC, as well as motor efficiency and mobility, were almost non-existent in these programs. Analysis of a Warrior-Leader combat tasks revealed that in Asymmetric Warfare, they would execute complex tasks in more than one plane of motion that require a high degree of mobility and coordination.

Unquestionably, developing motor efficiency and mobility, alongside mental adaptability, is essential. It assists in the development of Adaptability. Poorly defined fitness objectives and means of assessment exasperate this discrepancy. My study revealed that leader development programs do not include anything imagined with developing adaptability during their PT time.

III. <u>My other findings</u> resulting from analysis of the surveys include:

1. Units run too much, but they are not focusing too much on aerobic endurance. Running and foot marching are the only events being used to build aerobic endurance.
2. Physical fitness events conducted in sequential order, stand along as task centric, such as foot marching.
3. Lack of weight training does not mean that unit programs are not developing muscular strength
4. Courses are very focused on those events leaders use to define their fitness objectives and assess physical fitness readiness

[1] Donald E. Vandergriff, "Raising the Bar: Creating Leaders to deal with the Changing Face of War," 9th Edition, unpublished study, (Washington, D.C.: Georgetown University Army ROTC, June 3, 2005).

5. Programs, both ROTC and Army leader centric programs revealed surprising similarities in that,

    a. Cadres at these courses believe that preparation for the Army Physical Fitness Test (APFT) replicates doing more of the three events. This means in preparing for the test cadets or students run four miles to do well at two miles, do multiple sets of push-ups and sit ups in order to do well at the two-minute pushup and sit up events during the test.
    b. If there was any leader development at all, it consisted of "your turn to lead PT." and if it involved the student tasked to develop a PT plan, then it consisted of "replicating and perfecting what has been done." (at this point, it becomes task proficiency with cadets or students using a checklist as they go through the PT regime)[2]
    c. If innovation is involved with a PT event, it is seen as exceptional, or as a "fun day" that occurs once monthly or quarterly

IV. Specifics to Findings:

a. The APFT is a three-event test that only assesses muscular endurance and cardio respiratory fitness. The Army culture also narrows leader development in physical fitness to the APFT score. It has become so obsessive, that at some courses, such as the ROTC Leader Development Assessment Course (LDAC), that the results of the APFT on day 3 of the 32-day course, usually determine in the minds of the cadre how well the cadet will finish.

b. Running: There are a number of injuries associated with running. These include a prevalence of foot pain, knee pain, and shin splints. The three primary reasons for running related injuries are

1) Poor progression
2) Too little recovery between runs
3) Running too hard or too long on a given run

The "Raising the Bar" study revealed that most leader-centric programs ran three days a week and foot marched once a month (for ROTC programs this became more frequent the spring semester or quarter before MS III attendance of LDAC). The distance covered on an average run was 3.5 miles. This means the average run, conducted at an 8 minute per mile pace, required 29 minutes to complete. Though not examined in "Raising the Bar," research suggests that providing recovery between PT events that stress the same body parts in the same way goes a long way towards reducing injury.[3]

[2] Major Andrew Perry, Morgan State University, Survey conducted for "Raising the Bar,"March 22, 2005.
[3] USAPS Web Site, "The Right Dose of Running." Available at http://www.benning.army.mil/usapfs/TrainingSupport/trainingsupportindex.htm; from internet.

The study reveals that the lower extremities of Warrior Leaders are taking a beating in programs that adhere to the warm-up, push up, sit up and run approach to PT. Too much running, especially in younger potential leaders not conditioned to the distances or frequency with which runs are executed, can lead to higher injury rates.

c. <u>Leader and Adaptability Development</u>: Feedback from cadre, cadets and students found frustration with current approaches. While most agree that they get in better shape from their respective programs, most also countered this with that their programs also become rote and boring.

d. <u>What is meant by developing physical mobility and agility</u>: There are three planes in which the human body moves. In the sagittal plane of motion, the body is divided into right and left. Walking, nodding, and reaching overhead all constitute motion primarily in the sagittal plane. In the transverse plane of motion, the body is divided into upper and lower. Swinging a baseball bat, twisting open a jar, and turning the head to the right and left all replicate movement in the transverse plane. Lastly, movement occurs in the frontal plane of motion. In this plane, movement is divided into front and back. Common movements in the frontal plane include the side straddle hop and putting the hands on the hips.[4]

Though movement can be defined in three planes of motion, most human movement and most battlefield tasks are multiplanar (more than one plane). As a result, physical fitness programs must be more muliplanar and mobility oriented. The emphasis on Army physical fitness, which test events (pull-ups, sit-ups, and two mile run) that occur in predominantly the sagittal plane, detracts from more mobility-oriented physical training.

Along with FM 21-20, I assert that among other exercises designed to increase mobility, guerrilla and grass drills are considered some of the most challenging and functional means to train for combat-related skills. Mobility is a component of fitness that is essential in combat and cannot afford to be overlooked in the development of physical training programs.[5]

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[4]Major Mark P. Hertling, "Physical Training for the Modern Battlefield: Are We Tough Enough?" (School of Advanced Military Studies Monograph, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1987), 23.

[5]Major Mark R. Forman, "Too Fat to Fight--Too Weak to Win, Soldier Fitness in the Future?" School of Advanced Military Studies Monograph, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1997), 47.

V. Recommendations:

These recommendations pertain to both the Army and leader-centric programs, as well as to units as providing adaptability as a theme to all training:

- **a.** Develop a Combat PT Adaptability assessment that will allow commanders the opportunity to accurately assess the physical readiness of their cadets, students and Soldiers.
- **b.** Educate leaders on the importance of adaptability in unit physical training programs. This would include formal education at all NCOES schools, the infantry officer basic course, infantry officers advanced course, CGSC and the Army War College. A change in programs will not be realized until leaders, especially senior leaders, are educated on the topic and understand the overall benefits.
- **c.** Significantly, increase the amount of leader development and collective tasks conducted in leader-centric programs. Combat PT SEAs integration increases in the frequency into course physical training.
- **d.** Reduce the frequency and distances that cadets and students are running. An analysis reveals that aerobic endurance has a minimal impact on the successful execution of combat tasks. Additionally, by reducing the frequency and distances being run, more time will be available to develop other physical readiness in conjunction with Adaptability.

VI. ALC Combat PT:

The hour or more used for PT in an ALC is just one more opportunity to develop Adaptability as well as develop the physical fitness of Warrior Leaders. Leaders must make better use of those events that build and enhance a soldier's mobility, agility, and coordination.

With ALC, emphasis in how to think through adaptability education adjustments to existing physical fitness programs is minimal in regards to time and resources. The mental aspect may be taxing. Take for instance a unit that decides to do a circuit as a part of physical training. The students of a program meet at a track, football field, or in a parking lot, does the standard formation warm ups, and along a 3 mile run route stops along a road or running trail at designated areas to conduct push-ups, pull-ups, crunches, flutter kicks, sprints, etc.

A workout of this nature improves muscular strength, aerobic and anaerobic endurance, and muscular endurance. However, the development of adaptability is lost. These tasks are physically demanding, but executed in a single plane aligning with task-proficiency.

A small adjustment to Combat PT of ALC integrates the development of adaptability with physical training focused on combat. In an ALC, a student leader identifies a cross country route and at designated stations instead chosen to conduct a

vertical rope climb, low crawl, zig-zag rush, saddle back carry, monkey bars, broad jumps, 3-5 second rushes and a fireman's carry, all as fire teams. Cadre position at the start and finish with stop watches to time each team, so they can award the winning team and work with the slower teams.

A significant difference of these PT programs in terms of developing adaptability, physical agility and mobility. Like the first circuit, this circuit also improves muscular endurance, aerobic and anaerobic endurance, and muscular strength. The advantage to the second circuit, however, is that it also develops adaptability, agility and mobility—both physical and mental. Additionally, it very closely replicates many individual and small team Warrior tasks without significantly changing the PT session.

An alumni and serving Army Captain Patrick Fagan described his use of ALC Combat PT in his unit as a 2nd Lieutenant:

> When I arrived at my company, PT was focused on the APFT with three long runs a week; 1 road march a week with push-up, sit-up improvement mixed in. The battalion commander did officer PT, once every two weeks, but it just a long run that we all dreaded.
>
> Shortly after two months, we got a new command group. The BC (Battalion Commander) was into innovation, and very knowledgeable on battle focused PT. He had a one-page command philosophy. As soon as he got into command, he asked for concepts from the lieutenants, spent a short time with his XO and S3 assessing all the plans, and picked mine. He asked me to come in and talk to him about what I had learned at ROTC. I told him about our program, particularly the Combat PT. The BC then added a concept of my plan 2-page PT guidance to his command philosophy. Then, I taught a battalion OPD and passed out the PT scenarios. The commander made it a point to tell the company commanders that he did not expect them to copy my plan, and he wanted them to develop their own combat PT scenarios.
>
> The command group would then attend separate company and platoon sessions. All company commanders responded with having their lieutenants and sergeants develop their own ideas as long as it met the BC's PT philosophy. The command group also hosted a competition once a month consisting of teams of Soldiers from throughout the battalion, which wanted to compete with them. After about three months, I heard from the S3 that APFT average went up roughly 14 points. Nevertheless, more importantly, on deployments, and in Iraq, it was clear that the additional time not only physically, but mentally prepared us.[6]

[6] Lieutenant Pat Fagan, 25 January 2005. Survey conducted for "Raising the Bar"

VII. Combat PT SEAs:

Cadre and cadets executed all SEAs mentioned below. Do not limit your programs or units to these SEAs. Develop the ones listed here further, or make up new SEAs.[7]

a. "You're It!" SEA uses a squad level casualty evacuation

1. Conducted as a squad level exercise, in this case with nine cadets per team. (In this scenario there were 8 teams).
2. You will need a lane of terrain at a mile in distance from start to finish, hills and forests are preferred. Cadre determine width of training lane based on variables of avenues that can be chosen to get to the objective.
3. Cadet squads are lined up in groups along a start line (in this case a wood line), and in front of each squad was placed the following materials:

    a. Poncho liner
    b. Nine rubber M16s
    c. Each cadet has arrived in PT outfit, but were told to bring LBE and rucksack with their SOP packing list, which includes a map of that area and a protractor.

4. Cadre gathers all squad leaders and read them a FRAGO:

    "Prepare to copy. Enemy contact is not likely. Though fighting continues two miles behind you. Mission: You and your squad are to move (when you reach your squad after I read you this FRAGO, at my command "GO") a casualty (designated by another cadre from your squad—in this case the biggest person), with a gunshot wound to the thigh, to this grid in order to be evacuated by helicopter (a van) NLT time.

    Game rules and goals:

    a. Fastest team that loads casualty in van wins. We will determine what you win once all teams have arrived.
    b. If you don't have your map, improvise. (cadre outlines perimeters of exercise area)
    c. You can use the materials in front of you and anything else in the area, but not from your cars [parked behind them to get to PT some cadets had to drive]. You cannot use any motorized vehicle. You do not have to use any materials if you so choose.

[7] Only a summary of each one is listed here, the course or unit has the option to put them in the SEA format listed in Annex H.

d. You cannot issue your plan from this FRAGO until after I say "GO"
e. Time begins when I say "GO!" You have only one hour after I say "GO!" to complete this exercise. If you are short of the finish and reach one hour, a cadre or cadet officer will tell you to stop and all members continue hastily to finish point.
f. After I say, "GO" you can issue your order, but you must also treat the casualty's wound with the materials you have now. A casualty card will be given to you after I say, "GO!" Once you assess that the casualty is treated and wound bandaged correctly, tell the TAC "casualty ready." The TAC will tell you to continue if your properly treated the casualty. If you treated the casualty wrong, then the TAC will have you stand in place for five minutes, after which he will tell to continue with mission as if the casualty was treated correctly.
g. If you drop your casualty at any time after I say "GO!" your accompanying TAC will make you stay in position for two minutes, then allow you to begin again.
h. Time stops when you successfully lay the casualty in the van, and you can account
i. No questions allowed, now head to your squad and as soon as you get in front of them, face me."

5. Squad leader returns to his squad and faces the cadre running the event. They await the word,
6. Once all the squad leaders faced the cadre, the cadre said "GO!"

b. "Threes Company" SEA uses team level casualty evacuation

1. Conducted as a fire team (4-man) casualty exercise. (In this case, 15 fire teams existed)
2. Recommended course length, no more than a mile due to the difficulty of the task.
3. Teams are lined up at a start line with LBE, M16, Kelvar and rucksack (weight determined by cadre).

c. "Take a stroll" SEA uses tactical movement

1. Conducted at squad, platoon or company as a tactical movement across a wide spectrum of environments--dense jungle, open terrain, built-up areas, and mountainous terrain.
2. Cadre determine what load over a long distance can the student handle within the time allotted for the PT session. Roads and trails are avoided, if crossed, students must be shown how to cross a linear danger area.

3. Student leaders select movement formations based on the likelihood of enemy contact, and this impacts the rate at which a unit moves, the chain of command determines their formations and passes this down using the appropriate hand and arm signals. Cadre will pass down varying situation reports to gauge student leader reactions.
4. Student units conduct tactical movements with all mission essential equipment, to include load-bearing equipment (LCE), kevlar helmet, rucksack, and assigned weapon.
5. The SEA lists the demanding individual tasks that support the exercise:
    a. Move Tactically
        i. Move Under Direct Fire
        ii. Move Over, Through, or Around Obstacles
        iii. React to Indirect Fire While Dismounted
        iv. Move as a Member of a Fire Team
        v. Perform Movement Techniques During MOUT

    Note: Cadre or student chain of command determines how students should be familiarized or taught these tasks before or during the SEA

6.

d. "Shoot and Move" SEA uses move under direct fire at the team level

1. Conducted as a fire team. Students simulate moving under direct fire using those individual movement techniques a Soldier employs once under direct fire from the enemy.
2. Any field or strip of land wide enough to conduct a fire team movement can be used with in varying terrain. If all that available is a flat field, obstacles can be emplaced to simulate cover.
3. Cadre may choose to show a demonstration once of "what right looks like" of the conduct of the exercise
4. The student, who is moving as part of a team, either simulates fires in support of another team member's movement, or moves forward to the next covered and concealed position as his team moves to defeat the enemy. As the student begins to move, he must select a route that provides the best available cover and concealment without masking the fires that are covering his movement. Based on the viability of the route, the student must be prepared to

    a. Conduct a three-to-five second rush (very good covered and concealed route)
    b. Execute a high crawl (moderately covered and concealed route)

c. A low crawl (very poorly covered and concealed route).

5. This exercise is conducted while wearing Kevlar helmet, LCE, and carrying a weapon, but without the additional burden of a rucksack.
6. SEA lists Demanding Physical Tasks:

    a. Three-to-Five Second Rush
    b. High Crawl and Low Crawl

    The three-to-five second rush requires a soldier to rise up from a prone firing position, rush forward to the next covered and concealed position, stop and plant both feet, then fall forward--rolling onto the nonfiring side of the body. This must be done as quickly and efficiently as possibly, remembering that the enemy is actively attempting to engage the individual with direct fire. The high crawl requires the soldier to keep his body off the ground, resting the weight on the forearms and lower legs. The weapon is cradled in the arms with the muzzle off the ground. The knees are kept well behind the buttocks so it stays low. The student advances forward by alternatively advancing the right elbow and left knee, then left elbow and right knee.

    When low crawling, the soldier keeps his body as flat and as close to the ground as possible. The weapon is carried by grasping the upper sling level, then allowing the handguard to rest on the forearm with the butt of the weapon on the ground. The soldier moves forward by a combination of pushing and pulling movements with the arms and legs.

e. "Obstacle, Up and Over" SEA uses moving over and around obstacles

1. Students move as fire team or squad over, through, or around obstacles addresses negotiating various obstacles and danger areas that are encountered when conducting a tactical movement.
2. In negotiating obstacles and danger areas, students must be prepared to execute this task while carrying all of their assigned equipment--to include rucksack.
3. As defined by the cadre, these obstacles and danger areas may be natural (streams or open areas) or manmade (walls or wire entanglements).
4. When crossing a man-made obstacle, the cadre directs checking the obstacle for booby traps, then making one of three decisions regarding negotiating the obstacle--crossing over it, cutting through it, or crossing under it. Crossing over the obstacle requires

a mat or piece of material that protects the individual from the wire. If in his possession, the soldier places the mat on the wire, then crosses by walking or falling over onto the mat. To cut through the obstacle requires a tool (i.e., wire or bolt cutters) that can cut through the object impeding movement.

5. Crossing under the obstacle requires obstacles that provide some clearance. If this clearance exists, the soldier is instructed to slide on his back, push his weapon forward against the wire to prevent it from catching on his skin or clothing, then push with his legs and heels while maneuvering the shoulders. This movement is almost identical to the low crawl, except it is executed on the back, not the stomach.
6. When crossing an upright man-made obstacle, the cadre directs the students to climb quickly over the top, then rolling over the peak quickly to prevent silhouetting the body.
7. Lastly, when crossing an open or danger area, the cadre directs crawling (high or low crawl) up to the edge of the danger area, observing the far side carefully before crossing, then running rapidly, but quietly, across the area.

Note: With SEAs "Shoot and Move" and **"Obstacle, Up and Over"** Lend them to having the student teams carry something from one point to another as part of their problem solving exercise. In examining a task like carry, one begins to understand the importance of motor efficiency in the tasks that a soldier executes. Very often, calisthenics focus on the repetition of one muscle group (i.e., push-ups or sit-ups).

However, carrying anything requires a great deal of tasks coming together successfully. Soldiers carry many things on the battlefield--sandbags, ammunition, but most importantly, casualties. An unconscious casualty, regardless of weight, is incredibly difficult to balance and lift, especially considering the need of the "lifter" to maintain his own balance. All these things must happen to successfully pick up the casualty, but the lifter still has a responsibility to move and evade enemy fire, while evacuating the casualty. The result is a task that requires a great amount of muscular strength, anaerobic endurance, and motor efficiency.

The need for strength is obvious. The simple task of lifting a casualty may be the most physically strenuous tasks a soldier is asked to perform. To successfully evacuate the casualty, while evading fire, requires anaerobic endurance, as the soldier bounds from positions of cover to protect himself and his casualty from direct fire. The need for motor efficiency has already been discussed. Once again, another example is presented where several tasks must be completed successfully to accomplish the mission.

f. "Sand Castle" SEA uses building a fighting position

1. Students can be in two-man teams, or a fire team.
2. Cadre will need a place where fighting positions can be dug. If sand bags are available, they should be used. The exercise also includes filling the hole back up. If not available, then the exercise can use rocks or piles of sand to fill up the sand bags. The students will then be task to build some type of barrier (the cadre assess that is appropriate with the time and materials they have).
3. They required to begin construction of fighting positions are given standard pioneer tools or use their assigned entrenching tool (e-tool).
4. To achieve a hole that is armpit deep, the average soldier must dig a hole to at least a depth of three to four feet and at least the same distance wide.
5. Additionally, the standard for frontal and overhead cover is generally achieved by the massing of sandbags.
6. To prevent compromising an individual position, leaders direct that soldiers disturb the terrain as little as possible around the position so that the natural foliage assists in camouflaging the position.
7. As a result, soldiers fill sandbags behind their positions, then carry the sandbags forward to fortify their defensive positions.
8. SEA demanding tasks:

Dig, Carry

The primary component needed in digging is muscular endurance. Digging is characterized by repeated submaximal muscular effort that places a great demand on the biceps, abdominal muscles, shoulders, and back. Additionally, it requires a moderate amount of muscular strength, aerobic endurance, anaerobic endurance, and motor efficiency. Strength is demanded in the lifting and throwing of the dirt. Though digging looks simple, the act of digging itself stresses different parts of the body. A soldier uses his arms and abdomen to thrust the shovel into the soil, uses the back and biceps to lift the shovel from the soil, then uses the arms, back, and shoulders to throw the soil from his position. These intermittent events, executed at a high intensity, represent an anaerobic demand on the body. Aerobic endurance is required because the series of actions needed to dig, when conducted continuously, place a cardiovascular stress on the body.

VIII Combat PT, non-SEA events

b. The Obstacle Course

Conduct the obstacle course as a team competition is another excellent example of an event that builds motor fitness, enhances mobility, and can exercise other components of fitness as well. FM 21-20 states that "success in combat may depend on a soldier's ability to perform skills like those required on the obstacle course."[8]

c. Foot March

1. Foot marching is the basic staple of the Warrior-leader. Future operations will require some form of movement by foot. Foot marches are performed by students with load bearing equipment (LBE), kevlar helmet, individual weapon, and a ruck sack with a varied load. In total, this weight may be anywhere from thirty to ninety pounds.
2. Student leaders must be prepared to perform foot marches in all environments and for long distances.
3. The foot march measures the local muscular endurance of the leg and back muscles.

    a. Additionally, because the road march is a continuous movement requiring submaximal effort, it also measures aerobic endurance.
    b. As a result, foot marching demonstrates a high demand for muscular endurance and aerobic endurance.

4. As discussed above, a soldier's load can be anywhere from thirty to ninety pounds. Lifting this load onto the soldier's back and then carrying it requires strength. It also requires motor efficiency. It is not enough that a soldier is able to get the load onto his back, but he must also be able to move efficiently with the load. This includes movements in a wide variety of environments--mountains, swamps, rolling hills, and deserts. As a result, road marching demonstrates low demands for motor efficiency and muscular strength.

d. Climbing

1. Cadre find a place that students can climb. It does not have to be a cliff requiring rope and safety equipment, as well as "certified" cadre.

[8] FM 21-20, *Physical Fitness Training* (Washington, DC: Department of the Army, 30 September 1992), 3-1.

2. Climbing demonstrates a high demand for muscular strength, anaerobic strength, flexibility, and motor efficiency. When climbing, as a team, the students were often required to pull a combined weight greater than that of their body weight into an opening or up a rope (provide the tools but don't tell them how to do it). This requires great strength from the biceps and latissimus dorsi ("lat" muscles).
3. Because of the incredible stress placed on the muscles, soldiers are taught techniques for "locking" on a rope, and therefore, providing the arms with an often necessary break before the next pull and movement upward.
4. Warrior leaders may be required to climb for a number of reasons:

    a. In an urban environment, soldiers are often expected to scale walls and fences, and climb into second and third story windows or balconies
    b. In mountainous terrain, there are scenarios where soldiers are required to climb or scale cliffs.
    c. When crossing water obstacles, soldiers are required to perform a horizontal climb across rope bridges.
    d. Though in an urban environment it will not necessarily be a rope that a soldier is scaling, the intent is the same. The soldier provides maximum intensity as he thrusts upward until provided the opportunity to lock on a rope, rest on a windowsill, or rest on a new foothold. It is the movement itself that places the most stress on the muscles. Because of the intermittent nature of this movement and the fact that a soldier will often have to perform repeated or prolonged climbs (long rope), it requires a lot of anaerobic endurance.

5. Climbing is achieved by several skills coming together to perform a movement. It is the hands, feet, and arms all working together to scale an obstacle. When one does not work in unison with the others, the task is significantly more difficult and usually, not successful.
6. Climbing requires a great deal of motor efficiency
7. Lastly, flexibility allows the soldier to maximize his technique, and therefore, lessen the chance of injury and reduce fatigue.

e. Team Sports :

1. Basketball requires the execution of complex motor skills to be successful. Many of the tasks required in basketball are multi-planar. These tasks include rebounding, dribbling, shooting, defending, blocking-out, etc. Unless these specific tasks are trained, a person will not develop the skills necessary to excel on the basketball court. It is with this same mindset that military leaders must approach physical fitness training for soldiers. Ultimately, they are preparing soldiers for the complex, mobile, and fluid environment of combat. As a result, leaders must make better use of those events that build and enhance a soldier's mobility, agility, and coordination.

2. **Combat Olympics**

    a. Combat Olympics includes a combination of mental and physical events
    b. This can be the most resource intensive Combat PT session, but also one of the best at developing adaptability alongside physical attributes mentioned earlier. It easily becomes a major training event as the scope presented here, but in a leader-centric course with a 100 students, the scope can be narrowed to a few events conducted in a morning session.
    c. Examples of Combat Olympics include:

        i. One event consisted, of a Law of Armed Conflict challenge, a Humvee pull, an obstacle course, a sniper fire land navigation event and capture the flag.
        ii. 3rd ROTC Brigade Ranger Challenge: In spring 2002, I was tasked to make the ROTC nationwide Fall Ranger Challenge, more realistic.

            The competition had consisted of teams of cadets competing in events that were individual-centric and task centric, with the exception of the timed rope bridge. In addition, coaches and teams knew exactly what the "test" looked like, when and where they would participate in events, as well as the standards.

            This is not combat.

The course laid out over 15 kilometers in Fort A.P. Hill in central Virginia, amidst hills, swamps, dense woods criss-crossed by roads and trails.

Brigade issued an OPORD set in an insurgency environment. The OPORD also listed likely missions (tasks) they might encounter along their route. The order specified times to report at a start point, as well as reporting procedures to monitor each team's progress.

Teams consisted of 10 members (a squad). Each team was assigned a cadre TAC or RC. During the conduct of the competition, teams received FRAGOs as they concluded an event on where to proceed next. Decision making was constant throughout the day.

The actual events consisted of mounted land navigation, tactical foot march, dismounted land navigation, chance contact (battle drill), obstacle course, rope bridge, Leadership Reaction Course (LRC), First-Aid and Litter Carry Race, and the competition concluded with a "Commander's event" (only the Brigade commander knew-one year it was shooting event using M16 trainers, another year a series of sprint races with the team having to carry and perform tasks at the end of each sprint).

A point system was created based on times and task performance. Events were ran by committee while the RC assisted in each assessment as well as monitored times. During the competition, there were no administrative or down times. Teams were issued three MREs to be eaten when they had an opportunity. Water was positioned along the course at each event.

The event standard time to complete was 8 hours and 40 minutes.

Annex G

Understanding Adaptability[1]

"Adaptability" is a somewhat elusive term and its meaning can vary between two extremes. Adaptation can be passive or dynamic, or one can be either shaped by or shape the situation to his or her own advantage. Innovation, being able to "think on one's feet" and "improvise" is a prerequisite for dynamic, but not passive adaptability. Thus, to develop *Dynamically Adaptive Leaders*, the Army must develop *Innovative* ones first, which is a very tall order and suggests why the "Journey" will be time consuming and less than straightforward. Developing *Innovative, Adaptive Leaders* forces two very basis questions: ***What*** Leader attributes should Army development efforts address and ***How*** is the Army going to grow them? The remainder of this section explores these two basic issues.

The Question of WHAT?

Competencies, including lower-order associated knowledge, skills, and abilities, are what we conventionally use to describe leader development needs. Two recent studies identify critical 'Strategic Leader' competencies to 'paint' a 'portrait' of the Strategic Leader, the upper anchor of leader development initiatives, in competency terms. Army Chiefs of Staff commissioned both reviews and they yielded similar findings summarized below.

The mid-80's investigation,[2] based upon interviews with about 2/3 of all then three- and four-star incumbents about their work and its nature, boiled their findings down to these:

- Multi-National (Global) Perspective
- Philosophy of Role of the Army Within Society(ies)
- Strategic Skills – Political, Combat, Organizational Culture & Values
- Communicative – Systems (Mass Media, Organizational), Persuasive (Consensus Building Among 'Players'), Networking & Collegiality
- Systems/Organizational – Building/Engineering Systems & Organizations and/by Establishing Purpose, Values, and Shaping Culture

A more recent study,[3] a review of all relevant literature, concludes that Strategic Leaders should possess these competencies:

- Identity – Who Am I? or 'Self-Awareness'
- Mental Agility
- Cross-Cultural Savvy
- Interpersonal Maturity
- World Class Worrier

- Professional Astuteness[4]

These two sets, though identified through different methods and at different times, are remarkably similar.[5] Reading between the lines and based upon other empirical and theoretical[6] work, there are two monolithic capabilities that underpin both.[7] They are truly developmental, in the sense used in the Behavioral Sciences literature, and are ***Cognitive*** & ***Social-Emotional*** in nature.[8]

For example, "World Class Warrior" presupposes a well-developed Cognitive Capability to deal with high levels of abstraction, complexity, and ambiguity – to "read" situations well, even those global in scope. The same is implied by "Mental Agility," "Multi-National (Global) Perspective," and "Systems/Organizational – Building/Engineering Systems & Organizations and/by Establishing Purpose, Values, and Shaping Culture." Similarly, "Social-Emotional Capability" must be highly developed to demonstrate "Interpersonal Maturity" at the Strategic Level and "Identity" – "Self-Awareness" and "Professional Astuteness" as well. In fact, "Self-Awareness" is one way of defining level of achieved "Social-Emotional Capability," that is, "Self-Awareness" grows as "Social-Emotional Capability" develops.

Competencies are what Leaders have. They are composed of specific knowledge, skills, and ability complexes and manifest in specific behavior – what Leaders can do and how well Leaders can do it. Apache flight certification assures the Army that the individual possessing it is competent to fly, but it says nothing about how one might employ this asset with others in a combat situation against who for what purposes with what anticipated outcomes; however, the state of development of leaders' Capabilities– Cognitive & Social-Emotional—will provide substantial clues.

Capabilities determine "what we are" – they manifest themselves more globally in the nature of our Frame-of-Reference, or our 'eye on the world,' what we use to make sense of the environment and events happing to others and us. Thus, there are substantial differences between Competencies and the Capabilities, as outlined in Table 1.

Table 1

CAPABILITIES VS. COMPETENCIES

Capabilities Are:	**Competencies Are:**
• 'What You ARE'	• 'What You HAVE'
• Developed Across Time	• Developed within Time
• Cut Across Specific KSAs & Job Tasks/Subtasks	• Related to Specific KSAs & Job Tasks/Subtasks
• 'Foundational' to all Competencies	• Specific to Jobs & 'Job Families'
• Determiners of 'Level' of Competency Proficiency	• Reflected in Current Competency Performance
• Reflected in 'Stages' or 'Levels' of Current & Potential Growth	• Only Reflected in Current Performance

Taking another example, competence as a "Strategic Planner" means entirely different things depending on the level of Cognitive & Social-Emotional development. For example, at the lowest levels of Cognitive development, planning "strategically" will mean a few hours up to a day or two, while at the higher levels it will mean from one to as many as 20 years or more, that is, to be able to project the consequences of actions taken today out that far. Consequently, Capabilities underlie how leaders use their Competencies – they are all about how Leaders make "***meaning***," or sense, of the world, issues, others, and themselves. They determine what Leaders think of them and how Leaders behave towards the outside world.

Cognitive & Social-Emotional Development (CD & ED) occurs by "Levels" and in "Stages" for these two forms of development respectively. *Nature*, what we were born with, establishes how far we can progress, our potential, and *nurture* provides the experiences that help or hinder reaching it.[9] Capabilities and Competencies are two monolithic underpinnings depicted below in Figure 1.[10]

Figure 1.

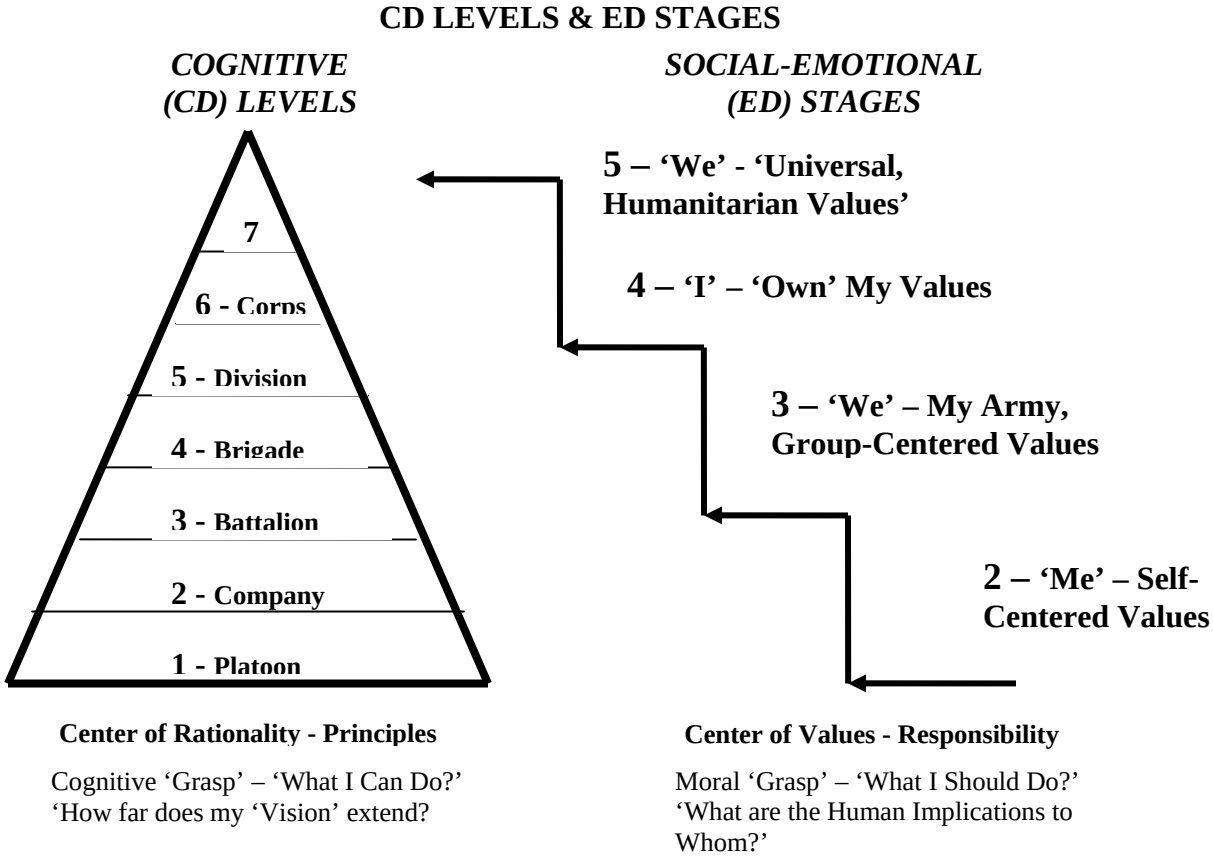

Figure 1 shows that CD, our Cognitive "Grasp," the breadth, depth, and scope of the "map" in our heads of how "I" or "we" – the person, himself or herself, teams, groups, organizations, nations, and the global community conduct business, varies widely among individuals. In large part, it determines "WHAT I CAN DO." In terms of how

Army forces have been traditionally echeloned, leaders possess a broad grasp at each one. Span of control and discretion for decision making varies widely from very little at the platoon level to very large at Corps & echelons above, whatever these, if any, are defined to be, depending upon the scope of force engagements globally.

Future force structures must envision fewer echelons, more flexible, agile, maneuverable units. This suggests that leaders must be *more capable earlier than heretofore has ever been the case*. In short, we should expect, for example, company commanders to be as, if not more, CD capable relative to today's Battalion or even Brigade commanders. Therefore, we must find ways of ***accelerating*** development over and above what our training and educational system has traditionally been capable of achieving.

In relative terms, ED is more important than CD, although the two are significantly correlated ($r=.46$, $\underline{df} = 32$, $p < .01$).[11] ED defines what has been called our "Center-of-Gravity,"[12]or the center of their emotions, actions, and decisions at some point in time. Whereas CD will determine the scale and scope of problems and operations an individual can effectively take on and the logic behind them, ED determines, in large part, the why – people's motivation – of what they do.[13] Put simply, it is all about "WHAT SHOULD I DO AND FOR WHOM?" Successively higher achievement on this dimension determines how ***objective*** the individual can be about their strengths and limitations, which also reflects how open they are to learning and discovery about themselves and others.

According to ED logic, people's self-identity, and feelings of self-worth, are defined by two distinct perceptions: their own, and what they believe others think of them, especially the views held by significant others. Our social identity springs from these two sources. As shown in Figure 1 (right-hand side), development on this dimension also results either in a focus on "self" (Stages or levels 2 & 4) or "others" (levels 3 & 5). Consequently, how much we are concerned about what others think of us varies systematically over the life span. ED progression directly relates to the need to have agency over (control) situations, others, and even the self.

Five distinct Stages of ED, roughly corresponding to CDs identify and describe qualitatively and quantitatively Seven Levels. Adult growth stages classified four of them (with intermediate points totaling 15 stages & sub-stages).[14] Most adults (about 55%) progress from an exploitative, self-centered 'teenage' Stage 2 into the broader "community" oriented Stage 3. Far fewer (about 25%) reach a self-authoring, "I own my values and principles of operation" Stage 4, and fewer still (< 10%) ever manage to achieve Stage 5, where the individual is able to construct true 'learning organizations' in themselves and the broader social context that can be self-sustaining.

The focus of one's concerns or their "Center-of-Gravity" systematically changes over time. The "We" at Stage 5 is very much different from what it was at Stage 3. In this case, instead of being "pulled" in the direction of prevailing Army norms, a person at Stage 5 will view them only as a point-of-departure. Nor will they view using the

institution as an extension of themselves, to do their bidding as they *uniquely* see fit, as they would at Stage 4. At Stage 5, they can "de-center" from their own unique Stage 4 self and will work towards change that will have better overall universal outcomes for "their" group, institution, system, regardless of how well it might suite or benefit their unique way of doing business. Table 2 summarizes salient characteristics of each development Stage.

Table 2.
CHARACTERISTICS OF ED STAGES

STAGE:	**2**	**3**	**4**	**5**
VALUES:	**'Law of Jungle'**	**Community/Team**	**Self-Determined**	**Humanity**
Organizational Orientation:	**Careerist**	**Good Citizen**	**Organizational Leader**	**System's Leader**
Communication:	**Unilateral Win-Lose**	**Exchange 1:1 – Win-Lose**	**Dialogue Consensus –Win & Lose**	**Collaboration Win & Win**
Need to Control:	**Very High**	**Moderate**	**Low**	**Very Low**
View of Others:	**'Objects' – Pawns to be Used for My Purposes**	**'Game' Competitors**	**'Contemporaries' Respectful of 'Their' Views**	**'Colleagues' Their Views Complement & Round-Out Mine**
Self-Awareness:	**Very Low-Low**	**Low-Moderate**	**Moderate-High**	**High-Very High**

Without an intervention a person within a Stage has 20-20 hindsight, they can clearly "see" and de-center from what they were retrospectively – "Oh my God, could I really have been so naïve to think, feel, and act in that way?" Yet, they have great difficulty in totally grasping their present view – imbedding them in it. For example, in the "I"-ness of Stage 4, where the person has built a solid sense of who they are, they fail to understand that their views, regardless of how well thought through, are just one of many equally valid. When they begin sensing this, to begin accepting other equally valid points-of-view and *synthesizing* them into more comprehensive, robust ones, Stage 5 perspectives emerge and the relative sterility of their Stage 4 understandings becomes obvious. They have just discovered that a new vantage point exists for them to achieve, should they care to make the effort that will be required to achieve it.

Table 3 shows theoretical expectations for CD & ED achievement by traditional position level within private sector organizations and the Army. It also describes, in very basic behavioral terms, what we expect of incumbents by level and what past research suggests that they should be able to do.[15]

We should realize that CD and ED reflect themselves in the twin pillars we use to define organizations, aside from assigning mission(s). FM 3-0 stipulates, on the one

hand, our "Operational Principles," the logic of what we do. Stated along side these are our "Values," defining the 'how' of what we do: *How the operational principles and values are realized in everyday, action defines Culture*. They are the sin qua non of what we are and there is usually a disparity between what we claim we are and what we actually are; that is, a significant delta between "what we say" and "what we actually do," a topic that will be addressed later. The extent of this delta is directly related to how difficult bringing significant cultural change about is likely to be.[16]

Table 3.
Summary of Combined CD & ED Developmental Milestones to Leadership & Organizational Structure

STAGES Of ED	LEVELS Of CD	LEVELS OF ORGANIZATION		GENERAL TASK REQUIEWMENTS
STAGE	STRATUM	LEVELS OF LEADERSHIP	POSITION/RANK	
5	VII	STRATEGIC – Mission, Culture, Strategy, Vision	**** Echelons Above Corps/Army Staff General/Global CEO-Board of Directors	Create and Integrate Multiple Commands/ Separate Business Units, Create Policy, Vision, & Establish Present & Future Directions & Missions. Brokers the Organization with outside influences: Press, Competitors, Suppliers, Partners, Congressional Constituencies, etc.
	VI		****/*** Corps/Separate Command Corporate Executive VP	Oversees Internal Operations of HQ, Subordinate Divisions, Strategic Business Units (SBU's); allocates resources, sets Policy into motion and Monitors Progress towards achieving Mission Objectives
4	V	ORGANIZATIONAL - Operational Policy, Mission, Objectives, SBU Climate	***/** Division Cmd SBU CEO	Direct Operations of complex Support and Direct Subordinate Units; Allocates assigned Resources; Implements Directives & Corporate Policy
	IV		**/* Separate Bde/ADC Senior VP 0-6 Brigade Cmd Division Director/Junior	Direct Operations of Direct Subordinate Units; Taylor or Task Organize Resource Allocations to Interdependent Subordinate Programs and Sub-Units; Put Policy Directives into Operational Motion
3	III	DIRECT/PRODUCTION – Translate & Implement Policy Through Operational Procedures	0-5 Battalion Cmd Department Director	Develops & Executes Plans & Task Organizes Sub-Units; Prioritizes Resources; Translates & Implements Policy at the Working Level within Assigned Mission Constraints
	II		0-3 Company Cmd	Directly Supervises Subordinate ~~Units' Performance; Anticipates~~ & Solves Problems in Real-Time;

			2nd Line Supervisor	**Constantly Shifts Resources with Situational Demands; Translates Policy**
2	**I**		**02-01 Platoon/Squad Leader 1st Line Supervisor**	**Direct Performance of Work; Uses Practical Judgment to Solve Ongoing-Immediate Problems**

Table 3 helps understand CD & ED achievement in relation to potential individual and organizational effectiveness. How they interact with one another defines yet a third crucial element of leader growth: Knowledge Development (KD). Infer a robust KD from level of assessed CD & ED.

Knowledge Development (KD) represents the combined product of CD and ED and is the platform for our Frame-of-Reference - FOR, the outcome state that, in turn, drives behavior patterns. CD and ED are the *vertical* growth dimensions and the nature of their *nexus* is ***critical*** to leader development. Both are statistically related. These findings and others suggest develop CD and ED *in synchrony*, to maximize knowledge development, KD, generally. CD lays open to the individual a landscape of choices, while ED determines whether he or she makes the RIGHT CHOICES under prevailing circumstances. As a result, educational and training efforts that do not develop CD and ED in tandem are predictably suboptimal, especially for military officers. Without ED being as fully developed as CD, they would know "What" but not "Who" they are!

Another way of saying this is that what is not marked "in your gut" is lean on *meaning*. "Performance" has an experiential component, and competence per se does not–learning to ride a bicycle from a book without ever mounting one represents the CD component, while actually riding it provides KD's ED complement. Thus, CD and ED together provide a complete grasp of a person, object, situation, issue, etc. Focusing on CD alone, as many educational and training experiences do leaves out a critical part of the *meaning making* process (comes through using simulation assisted learning). So, while CD => KD = **competence** is necessary for acting 'knowledgeably,' it is not sufficient for acting 'responsibly,' or with a full understanding of the social – emotional consequences, on whatever scale, of the course of action one chooses to pursue. Synchronous CD & ED growth promotes holistic understandings, which must be a part of any well-defined Army leader development process.

Perceptual & Learning Processes:

The final piece of the puzzle that the Army must consider in developing future leaders is itself a rather complicated process. Substance is to substrate in emulsions as competencies are to capabilities in human development. How competencies combine with capabilities to produce development *across* time occurs through *Learning*, but that is, in turn, dependent upon our senses – what we see, hear, taste, touch, and smell. Some would rightly add a sixth that defies rational explanation or concrete definition – *Intuition* – What we know or feel without explicit knowledge of how.

Our senses provide the food for learning–the gatherers of raw information. "Rote" learning is the food not processed before it is stored. Learning Research has shown that humans can only deal with about seven raw pieces of information (number, letters, etc.) at one time.[17] Given this limitation, people develop conceptual strategies that store higher orders of information or datum in the form of "concepts," and process further into concepts of yet higher orders, pillaring one conceptual layer on top of the other. Rote learning occurs in concepts. Someone else has processed the raw inputs constituting them, or the receiver can process the information himself or herself into the higher order. Learning consists of both processes, but one is passive and the other active.

How to produce the next Generation

Understanding how to develop and nurture adaptability must be undertaken, in concert with extant Army plans for revamping the officer Education & Training process, for the institution itself to produce Future Leaders who will have the FOR necessary to change the Army's culture in ways I and others have suggested:

Adapt the model of development suggested in favor of alternative approaches that have not achieved the ends intended for at least two generations, if not more. Those teaching at the Adaptive Leader's Course need to focus on the essential elements of development, as defined here, and as suggested from the best available findings about human development and transformation available today.

Develop measures of both the Essential Elements themselves and their behavioral manifestations. Measures of ED and CD do exist, but develop as "user friendly" and usable on a Army wide-scale basis. Metrics cannot be the current leader evaluation card used by Cadet Command that is very complicated and forces leader observers to focus on the card and not the actions of the student leaders and their units. A tool for new metrics can be a simple card with just a printed "name," "mission," "time," and name of "evaluator." The rest is space to write observations. Given a number of these observations over time, through demanding situations enabling adaptability provide a measurable evaluation of adaptability. Complementary measures of P&L exist as well. Clearly, if we cannot measure the Essential Elements, they do not matter; hence, we must find ways of measuring these elements for two purposes:

- **Intensive confidential** individual assessment, feedback, and development planning at each school house entry or career gateway. The issue is to provide the foundation needed to guide development during the educational experience and in follow-on assignments.

- **Systemic feedback**. Each officer should be anonymously assessed at each gateway point to provide a feedback loop at the systems level, to determine if the programs and processes set in motion are having their intended effects. This will provide an interlocking chain of continuity to each Officer's development from

the time of pre-commissioning onward. With such a continuity thread, it will be possible to monitor progression towards our objectives: Generically, the crucial question is developing the Army's talent at the right time and place needed in terms of the Essential Elements.

Establishing the blend of instructional technologies to use, particularly in the institutional setting, is critical to promoting synchronous growth in CD, ED, and, consequently, KD. Present instructional approaches lack opportunities for experiencing the EMOTIONAL TRAUMA OF FAILING WITHIN A SAFE, FACE SAVING ENVIRONMENT that is needed to promote ED. The technologies coequal focus must be on CD to teach critical and reflective thinking, or how to think. This should replace the now almost total emphasis on **what** to think (content) to permit building richer and deeper understandings of the self and alternative worldview, an understanding of which will enrich one's own.

The Army's highly technical environment demands that the emphasis from the outset be on t*ransformation*, on growing by learning-to-learn, not information alone. This annex has focused on the **what**, but there are going to be sequels to address the **how**, which is critical to the overall eventual success of these recommendations. In many senses, the **how** is a more difficult issue, but evidence exists that gives us strong clues about what its nature must be.[18]

Conclusion

The only way the Army can produce a future leaders with the wherewithal to define and develop a "Culture of Innovation" are from inside the individual out. It will only be possible by growing a cadre of people with a more advanced FOR than evidence suggests exists now. Thus, the transformation our recommendations envision will take place over a protracted period as the next generation is produced. If the Army starts in earnest now to focus on development as we have described it, rather than on its manifestations - behavioral "eaches" or "meta-eaches," The Army can reinvent itself in the ways current trends suggests it must: "*Adapt or Die:"* The Imperative for a Culture of Innovation in the United States Army."[19]

If the Army truly wants to raise itself to the next level, it must be prepared to grow a new, more advanced Leader at all levels, and marshal the "military continuity" – that sustained, dedicated, focused sense of purpose – that will be necessary to make it happen. As long as the Army culture mirrors more than less the culture at large, it will never produce the change it seeks. A culture supportive of the Profession of Arms, where mistakes are measured in lives, not dollars. The Army has the talent, if only the institution will take the initiative and engage the appropriate, extended effort that will be required to develop it.

ENDNOTES

[1] I would like to think Dr. Steven Stewart who assisted me in writing this one for the Army. Dr. Stewart assisted in the founding of the Army's School of Advanced Military Studies, and taught a cognitive development course at the War College.

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[14] Kegan, R. (1984). Ibid.

[15] Jacobs, T. O. & Jaques, E. Ibid.

[16] Department of the Army (2001). *Field Manual 3-0, Operations*. (pp. 1-7). Washington, D.C. U.S. Government Printing.

[17] Simon, H. A. (1969). *The Sciences of the Artificial.* Cambridge, MA: MIT Press.

[18] Stewart, S. R. (1989). *Correlates of Problem Solving and an Evaluation of Training to Increase Problem Solving Effectiveness.* Unpublished Doctoral Dissertation. Carbondale: Southern Illinois University.

[19] Fastabend, D. A., & Dimpson, R. H. (2003). Ibid.

ANNEX H

SEA Template

Use this template to outline your creation of SEAs. Refer to the hand book when first starting.

First, ask yourself, what is it I want to accomplish in my cadets or students? Where are they at right now? An example of this assessment, the first step in developing a SEA is in the handbook.

Begin template…….

[Title]

Scenario Enabling Adaptability

SEA #

"[Name]"

I. <u>Case Study</u>:

[Place a summary of the historical case study here. It should be an example of what you want to help accomplish with the SEA]

II. <u>Background and goals</u> (Teacher refer to instructor handbook):

a. What do we want the student to understand?

1) [List aspects of Adaptability SEA emphasizes here]

a) [describe it]

(1) [examples of how seen by us]

2) [You can also place a theory here that you might want to expose the students to later. For example, Recognition-primed decision (RPD) theory]

III. <u>Description</u>: [This is the exercise]

a. <u>What do we do</u>?

[provide a description of what the student sees in the scenario. Provide enough information for the student to have a problem and paths to solving. Always provide a map and diagram to assist. Describe the enemy in enough detail for pattern recognition, or to force critical thinking, but don't go overboard]

b. Requirement:

[After you read the "What do we do" this is what you want the student to do. In a TDG, it may be a time requirement to decide or produce a plan, or even an OPORD if it is used as a test. With tools that are full up exercises, it may be the start of the exercise with the requirement being accomplish the mission (in a time period)]

c. Instructor Notes:

1) [Specific Notes about the Scenario that the instructor needs to know to facilitate go here]

IV. Tools & Tasks:

a. Tools:

1) [How the SEA is going to be delivered, with the recommended tool listed first]

2) [Advantages and disadvantages pertaining to each delivery tool]

b. Tasks: [Lists Tasks Student may have to employ during SEA by number and number (Complete TSPs are posted as annexes at the end]

1) For example

IMPLEMENT THE ETHICAL DECISION MAKING PROCESS BOLC LN # 853

I	- Apply Leadership Fundamentals to Create a Climate that Fosters Ethical Behavior	158-100-1135
I	- Apply Ethical Decision Making Process as Commander, Leader, or Staff Member	158-100-1230
IV(unit)	- Comply with Department of Defense (DOD) Joint Ethics Regulatory (JER) Requirements	181-231-1001

V. Facilitation hints:

a. The following techniques are recommended:

1) [for example "Choose the Student to present the solution"]

2) ["Enforce the "Time Limit" Rule"]

b. Possible questions: [these are only examples, every SEA will poise its own questions]

1) What was your reasoning for that action?

2) What was your overall estimate of the situation?

3) What would you have done if...?

4) What were your assumptions?

5) What was the biggest concern about your plan?

6) What is the Rules of Engagement say?

7) What are Rules of Engagement?

VI. Insights: What did we learn?

a. Adaptability: [list here when and where during the scenario aspects of adaptability may occur]

b. Possible Student Solutions: [wargame possible solutions and list them here with theoretical explanations of why or why not they were working courses of actions. Avoid the "right answer" here]

1) Key Students Issues that must at least touch upon: [these are things that at a minimum the leader needs to address to at least be successful]

a.

2) [student solutions that fall under some aspect of adaptability]

a. Student Solution 1:

Teacher Notes: [theories, case studies or aspects of adaptability applicable to this specific solution]

b. Student Solution 2:

Teacher Notes:

c. Student Solution 3:

Teacher Notes:

d. Next steps and recommendations:

[Recommended education and training experiences that should follow this SEA]

VII. Resource Considerations: [List here under each presentation tool an example of how the SEA would be presented using that specific tool along with resource requirements]

a. **Free Play Force on Force**
b. **TDG**
c. **Seminar:**

    1) **Class room, any space that can hold a student squad**

VIII. Task Support Packages:[This is an annex where all specific and likely tasks go]