



FROM SWIFT TO SWISS

Tactical Decision Games and Their Place in Military Education and Performance Improvement

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In today's arena of military transformation, the newest bandwagon everyone is jumping on is "reform military education." This comes about in light of the complex problems faced by Army leaders in Afghanistan and Iraq (Wong, 2004). The Army's education and training doctrine was developed to deal with second-generation or industrial war. The existing system did all right to prepare Army leaders, especially its junior officers, to adapt to the unexpected demands of the ongoing wars in Afghanistan and Iraq. Nevertheless, the Army leader development system has to do better. As a result, think tanks and military task forces are proposing all kinds of changes to military education, at the levels of joint education, midlevel officer career courses, and senior-level war colleges (Scales, 2004).

My response to all this is, "Wow! You guys just don't get it!" Why focus our efforts to change education on people whose character is already set by years of process in our antiquated personnel system? The solution to our problem is adapting our military education system alongside the evolving generations of war, which calls for a different military mindset. I say, "Why not begin the reform where it all begins?" If leaders in the Department of Defense, in Congress, and in the think tanks really want to "transform" the force, then they should start with the next generation of potential leaders. Earlier is better—transform how the Army trains its new aspiring leaders into an adaptive leader's course, as illus-

trated by White (1988). White explores the essence of German military professionalism, as exemplified by the 19th-century Prussian military. His volume focuses on the most important Prussian military reformer, Gerhard Johann David von Scharnhorst, who in 1801 founded the *Militarische Gesellschaft* (Military Society) in Berlin. The *Gesellschaft* became the focal point for the transformation of the Prussian army from a robotic war machine into a modern fighting force that was instrumental in defeating Napoleon in 1813 and 1815.

Of course the first responses will be, "How much will it cost?" and "What are the political costs?" My answer is that it will not cost much, if anything, to prepare the next generation for the leadership challenges the United States faces today and in the future.

The proposal outlined here is one part of a holistic solution. In turn, this can impact the way the Army recruits (markets), develops, educates, and trains its future leaders. A thorough study of history and a detailed analysis of present and future environments allows one to predict what the Army would ask officers to do in the future. Defining the end state—instilling adaptability in new leaders—made it possible to put to practice (by trial and error) concepts that build adaptability and intuition in cadets before they go on as commissioned officers to lead soldiers.

The ROTC department at Georgetown University (the Hoya Battalion) is already putting to practice many ideas on how to better educate and train cadets. They have done it without raising their budget or adding to their personnel with outside contractors. The Hoya Battalion has done it entirely with the cadre the Army gave us through its personnel assignment system. As a result, the program has finished among the top five in the nation over the last two school years, 2003-2004 and 2004-2005.

The cadre of the program, the noncommissioned officers and officers, accomplished this goal by adhering to a few principles:

- Continue to develop the program based on the lessons from war.
- Be open to well-thought-out ideas.
- Always set an example.
- Place as much ownership for the program in the hands of the cadets as is possible.
- Don't let your ego get in the way of encouraging cadets how to think.

The bottom line is that this climate drove all members of the organization to do the best they could in preparing their cadets for the future by using the most effective methods in education and training (Gill, 2004).

The goal of the Hoya Battalion was to create leaders of character who are ready, willing, and able to make the right decisions in the face of adversity, be that the enemy, subordinates, peers, or superiors, on or off the battlefield. In addition to this goal, the Hoya Battalion evolves parallel to a learning organization, where the students leave the program and continually seek education as a self-discipline.

The cadre or teachers of the Hoya Battalion used several techniques within the curriculum they devised under the Program of Instruction (POI) to assist them in achieving the end state. One tool is the Tactical Decision Game (TDG), which provides an efficient and effective way to teach intuitive decision making—or, as the Army calls it, rapid decision making—in aspiring leaders. The TDG, though an important tool in developing adaptability, is but one aspect of the entire POI of a true adaptive leader's course (see Figure 1).

The POI of the Hoya Battalion puts into context when and where education and training fall.

Cognitive Development (CD) occurs earlier because it is more complex and imparts a longer-lasting lesson through difficult shared experiences. Some of these experiences occur during training, but again, using the scale in Figure 1, the Hoya Battalion understands that training requires more tangible and expensive resources. Correctly done, training is resource intensive, while education is intellectually expensive. This combines into Knowledge Development (KD), which is one aspect of experience or gaining intuition. TDGs are but one tool of the cadet's evolution toward learning adaptability (Schein, 1997; Senge, 1990; Stewart, 1987).

TDG is a cheap tool, but an intellectually expensive centerpiece of the Hoya POI. By using the term "intellectually expensive," I mean that TDGs put demands on the instructor that go beyond most "ease on instructor" or "turnkey" curriculums used today. There is an art to teaching. It requires an instructor who understands war, is proficient in the technical aspects of the profession of arms, and who is a good leader. One last important asset: The instructor must have an imagination. With these ingredients, the instructor will find many ways to use the TDG to teach decision making and to build character. But first it is necessary to understand the history behind TDGs.

Background to "Why"

TDGs are used to teach leaders how to think and to train and reinforce established ways of doing something, such as task training. The technique can be traced back at least to the Chinese general and military theorist Sun Tzu, who was advocating their use more than 2,500 years ago (U.S. Marine Corps, 1989).

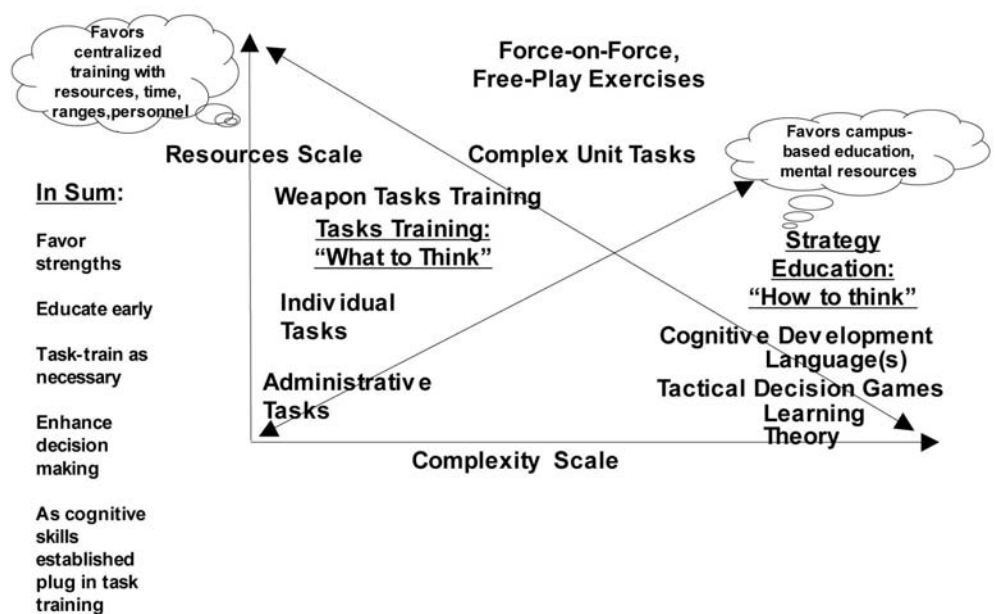


Figure 1. The POI of an Adaptive Leader's Course.

The way of educating and teaching Georgetown cadets called for in previous cadet command regulations evolved out the industrial age way of war (second-generation warfare) and centered on the rote memorization of process, or what is today called the Military Decision Making Process (MDMP). MDMP evolved from a scientific way of organizing thoughts in the preparation and execution of missions. It went 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 into the way 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. (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, 2002.)

The MDMP was created by U.S. Army Major Eben Swift 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 (1877; Gray, 1995). 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. 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 (Swift, 1906). It is important to note that, at the time, more U.S. officers spoke French than German. 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 (Dastrup, 1982). 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 practical exercises; terrain walks; staff rides; and

the capstone exercise, *Prairie Warrior*, which relies heavily on computer simulation (Swift, 1906).

At the heart of the reforms led by Gerhard Scharnhorst shortly after the destruction of the Prussian army at Jena in 1806 were 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 (B.I. Gudmundsson, personal email communication, December 16, 2004).

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" (see <http://www.cals.ncsu.edu/agexed/ae501/pestalozzi.html>).

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, TDGs were used to sharpen the students' decision-making skills and to provide a basis for evaluating them on their character (Gatto, 1991).

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 (Morsy, 1994, pp. 21-45).

The TDGs 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. Also, 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 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 (Morsy, 1994, pp. 44-45). "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" (B.I. Gudmundsson, personal email communication, December 16, 2004).

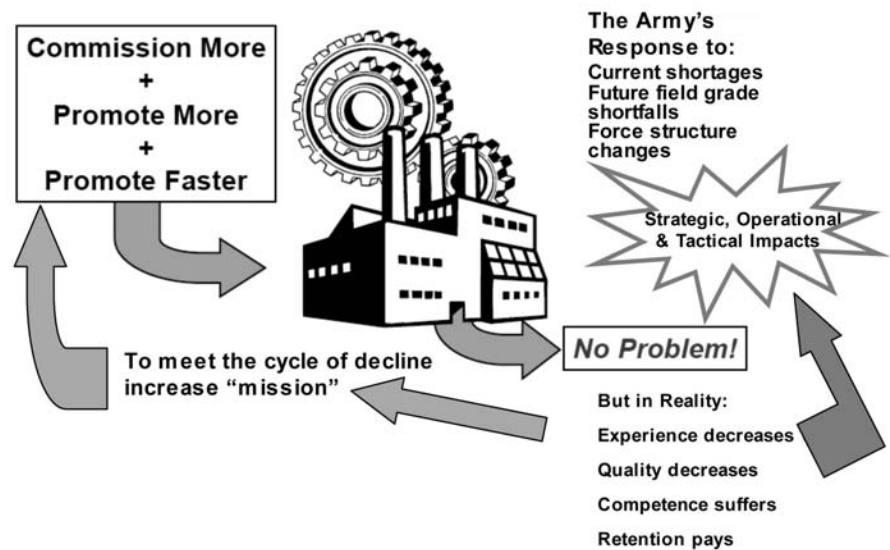


Figure 2. The Impact of the Mobilization Doctrine and the Industrial Way of War.

The cadet would have to present his proposed solution in front of his peers, instructors, and sometimes 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 (von Moltke, 1993).

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 (Bald, 1986; Rothenberg, 1986).

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 (Beihefte, 1877).

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 military approach to education based on the philosophy of René Descartes. Descartes 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 military problem solving into processes (checklists) to educate their officers and their awaiting masses of citizen soldiers upon mobilization (see Figure 2) (Kirkland, 1990; see also Coffman, 1986; J.H. Hays, 1978; F. Kirkland, personal communication, April 12, 1998).

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 (Doughty, 1986; Vandergriff, 1998).

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 (Hays, 1971; Lane, 1973; Weigley, 1971).

The Germans, on the other hand, invested far more time and rigor in developing leaders who could decide faster in fluid situations. They also promoted a military culture that encouraged initiative among subordinates, after a thorough and very tough accession process. (I must allude to the fact that we must use caution when adapting the education methods of the pre-World War II German cadet officer schools to U.S. Army ROTC. Their methods were sound but were supported by an ability to make harsh cuts without much question from the chain of command, which was tolerated in their culture of the day. The best voice in this matter is found in Daniel J. Hughes' 1986 "Abuses of German Military History;" see also Higgins, 1985; Lind, 1985; Tiberi, 1985.)

The French and the United States, in contrast—and to be fair, out of desperation because their larger societies did not put a premium on funding and supporting professional preparedness peace—practiced Progressive era personnel theories and opened the net wide to accessions, to be democratic and fair. Missing was a hard "filter" up front to judge character under stress prior to awarding a commission. It was felt that new officers could learn on the job either in peacetime duty or in war. This was a very harsh way to develop and prepare leaders. Both countries felt that they were the victors in war without examining why they were the victors, and they ignored mistakes (Hays, 1971, pp. 105-114).

How to Use the TDG as a Decision-Making Teaching Tool

Today and in the future, TDGs will assume more importance in developing and sharpening cadets' tactical skills without an extensive and expensive commitment of resources. To be sure, experience is one of the most valuable aspects of teaching and training, but it is also costly. The Georgetown POI encompasses military history, essays, and varied education techniques, which carry over easily to the field. A new

curriculum combined with a new operating environment and training philosophy will provide an opportunity to learn from the successes and failures of earlier warriors. Surveys of cadres taken by the author (2000-2004) garner similar responses regarding the use of TDGs: "There is no task-condition and standard;" "How can I grade this?" "The cadets need to be taught more before given this [TDG];" This is something they should learn later [after they are commissioned and later in their careers]."

When thinking how to use the TDG, a cadre can also consider it a tactical exercise without troops. The cadre is only limited by imagination. There is a lot that can be done with the TDG. The cadre can use it in a written exam, like writing an Operations Order (OPORD) to plan for the scenario for a test. Along with the written portion, there will often be a sketch or plan that a student is required to do in developing his or her own plan. The scenario should also define who you are, why you are there, what your assets are, your mission or objective, and the threats against you. The instructor can change or adjust all of these based on what he or she wants to achieve and the level of proficiency of the class. Although the Hoya Battalion wanted the cadets to "experience the thing before you try to give it a name," the cadets attempted problems they could manage. By exposing the cadets to too complex a problem, a program may discourage them early on from taking risks and thinking boldly about their solutions (Vandergriff, 2003).

As the cadre gets comfortable with TDGs and gets a feel of how the cadets are evolving into them, the cadre can adjust all aspects of the TDG to teach critical thinking skills. For example, they can be vague in certain areas of the OPORD. This forces cadets to make assumptions or educated guesses. The Hoya POI also taught the cadets how to ask questions and not to ask dumb questions. Asking dumb questions means that they need to learn how to listen the first time and how to take concise notes quickly. Telling cadets "there are no dumb questions" is counterproductive to teaching them how to think. Allowing them to ask dumb questions gives them bad habits. There isn't much time for questions over the tactical radio. Everything done in an adaptive leader's course falls back to teaching the cadet how to deal with the stress of combat.

The POI encourages cadets to seek more knowledge when they ask pertinent questions. The instructor will now do this through the cadet brief-back of their solution. Cadets give their solutions to their peers, who will in turn evaluate the cadet's decision. The instructor is there to guide the discussion. He is also there to encourage the theme of classical education. Because of this session, cadets will seek to gain more knowledge on their own.

The instructor is also the referee, adding reality to cadet solutions with "Not possible" or "In reality, this is what this

so and so can do for you in this type of terrain” type responses. Or the instructor asks probing, Socratic questions such as, “Is your course of action in keeping with the spirit of the commander’s intent?” or “What caused you to change the mission you were given by higher?” These repeated sessions build character—adaptability and intuition—over time.

The major benefit of this type of education is that cadets can be put into situations that are either impractical or too expensive to enact in the field or in an electronic simulation. Cadets can go over hundreds of scenarios without ever leaving the classroom. This establishes a solid foundation in understanding decision making prior to moving to the field and more costly training. This is not a substitute for free-play force-on-force exercises but a useful adjunct. If you find a particularly relevant scenario, you can enact it live.

General Guidelines

The following are a set of general guidelines to follow when using TDGs. They are not designed to be restrictive but to ensure that cadets get the most out of the situation. Cadets know that most TDGs are written to appeal to a wide international audience. Teachers will have to take the time to translate the TDG into Army language (some TDGs are downloaded from the *Marine Corps Gazette*). Your particular ROTC battalions may develop different operating procedures, but don’t get caught up in arguing about specific procedural points; there will be plenty of time for that during debrief. The *Marine Corps Gazette* TDG website is <http://www.mca-marines.org/Gazette/tdg.htm>; it includes archives of years of past TDGs with solutions.

The main thing to remember is to encourage the cadets to treat the situation as if they were living it. In many of the scenarios, cadets have fractions of a second to react, and allowing them to ponder the situation for hours reduces the benefits of the exercise. Spontaneity is the key. Tell the cadets that their first reaction is probably the best one. Again, it is a good tool to build character, especially when the rest of the class is attacking your course of action. No matter what the course of action, if the cadet thinks he or she is right, he or she should defend that course. Instructors must divorce themselves from their egos to support a cadet’s decision, which may contradict the teacher’s solution (Kilpatrick, 1951).

Also, instruct the cadets to give as much detail as possible in their answer. We have the cadets imagine that they are giving orders to their unit, or explaining their actions to their battalion commander. In several cases, teachers read scenarios to them with their eyes closed and without the benefit of taking notes. In single-person scenarios, have cadets describe the techniques they would use and why, what considerations they are taking into

account, and what follow-ups they would perform. In team scenarios, have them describe what each cadet is doing and why, what their actions and reactions are. With a time constraint, this approach teaches you how to manage time and how to prioritize tasks, an effective tool to lead subordinates with limited time to plan and execute a mission.

The Hoya Battalion also employs other factors that add stress on top of most cadets’ own self-induced stress in the scenario. Teachers play a war movie on TV or loud music, open the windows during the winter, have a radio speaker in the classroom continually updating the enemy and friendly situation, and whatever else we can think of to approximate the distractions felt in the heat of battle.

Finally, have fun with TDGs. There is no “right” answer, only better answers. All responses have some benefit and highlight unique perceptions 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 do not limit the student to one pass or fail school solution. This is hard when using the TDG to evaluate decision-making ability during an examination, but it can be done. Cadre uses four evolving questions when grading the TDG exams and quizzes:

1. First and foremost, was a decision made?
2. If so, was it communicated to subordinates effectively?
3. Was the decision made in support of the commander’s intent (long-term contract) and mission (short-term contract)?
4. If it was not, the instructor asks whether the cadet’s solution was based on changing conditions that made it a viable decision even if it violated the original mission, but supported the intent.

Failure on the TDG comes from not making any decision or, in the course of briefing their course of action or while the teacher is grading the TDG, when the cadet changes his or her decision because the instructor challenged his or her choice. The cadet demonstrates the need to go along with the instructor (“higher”). Even if the teacher feels that the cadet’s decision is a sound one, he or she may challenge or test the cadet’s character in the face of adversity, to see how much the cadet believes in himself or herself.

From Process to Performance Improvement

TDGs transferred into decision-making games are applicable to the nonmilitary world. They are value added in many ways to an organization’s leadership development or simply in the way it goes about planning for operations or in war-gaming future concepts and ideas. First, it is important to provide contrasts to the development of adaptability, as well as to talk about possible problems with this rapid approach to decision-making ability.

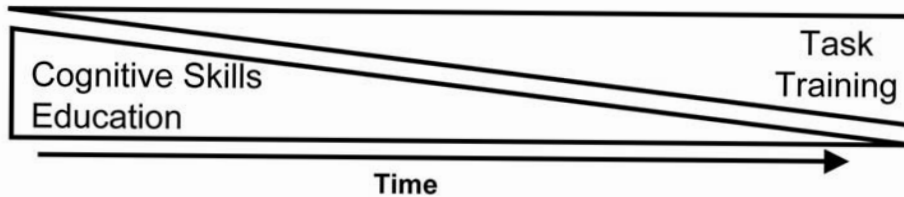


Figure 3. “How to Think” Serves as the Foundation to “What to Think.”

The Army educational approach evolved parallel with the same approach used today in the U.S. public education system called “competency-based education.” Both evolved from Taylorism, or scientific management (Lane, 1973, p. 40; Weigley, 1971, p. 24; see also Hays, 1971, pp. 3, 10). The use of testing in the Leave No Child Behind initiative is the extreme example of this. “Teach the test” and “train for the test” derive from this educational (training) approach. Peter Kline in *Why America’s Children Can’t Think*, calls this approach to education “fill-’em-up” education. He goes on to describe this approach:

...[I]f we assume that children are born with nothing on their minds, and that it is the business of education to fill those minds with the things that Everyone Should Know, as if we were programming computers, then there might be some sense in a lock-step curriculum. (2002, p. xiii)

Both systems, public education and Army training, developed to rapidly prepare as many people as possible to do critical but basic wartime tasks. Competency-based education is seen in almost every aspect of Army institutions that deal with leadership development, from curriculum development and use to how leaders are evaluated (using long competency-based leader traits lists) to how instructors are certified to teach (Center for Army Leadership, 2005, p. 6-8).

Industrial age organizations seek to achieve routine and habit 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 (Reed, Bullis, Collins, & Paparone, 2004).

How does competency-based education translate into training? 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 and in most lesson plans or training support packages. 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 knows the “right answers,” how to do things the “approved way,” or how to arrive at the “school solution.”

Under these conditions, the products of each student in every situation 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. With training, a task analysis translates into the curriculum including a complete listing of skills and knowledge required for the graduate to demonstrate competence.

Implications for Performance Improvement

The belief that task and the analysis decision-making process should serve as a baseline runs counter to how to develop cognitive skills (“how to think” rather than “what to think;” see Figure 3). What should occur is that CD should take place earlier; even college may be too late. Nevertheless, this must also involve Emotional Development (ED). The two combined become knowledge translated into experiences (KD; U.S. Dept. of the Army, 1999; Jacobs & Jacques, 1987; Magee, 1999).

Imagine seeing two bars perpendicular to one another on a horizontal plane. The bottom bar is CD. The bar on top is task training to achieve task proficiency. As the cadets or leaders begin their leadership development, the Army should “introduce them to things before giving them a name” in an environment that is painful but safe, so they seek the answer.

I have seen the adaptability approach in action, have lived it, and helped develop it; and the learning curve is remarkable, given at least average intelligence and the motivation to learn. The gradual integration of task training to gain proficiency is smoother, and students learn how to integrate tasks in a holistic view (Basseches, 1984; Graves, 1981, as cited in Wilbur, 2000; Lasky, 2001).

As described earlier, the Army approach to leader development originated through its experiences with and through the nation’s mobilization doctrine for World Wars I and II. In turn, this demanded that the Army get millions up to a basic level. It could achieve this through task proficiency.

The nation could not imagine that the military trade required thinking or even smart people. The leaders that evolved from World War II did so because the promotion system the Army had in that war became a true meritocracy—you were killed, succeeded and were promoted, or

you failed and got relieved—through default. As soon as wars such as World War II were over, the nation forgot the lessons it should have learned, easy in the “glow of victory” (“We did nothing wrong because we won” or “Why study the Germans? They lost two wars”).

Another reason the Army could emphasize task proficiency first is because the pool it drew on from the U.S. population at the time possessed a high degree of CD (Ambrose, 1983, pp. 433-457). In making this determination, the Ambrose study examined only those variables that could be gleaned from the officers’ records, which fell into four general categories: age; service school attendance and ratings; length and type of service prior to World War II; and demonstrated measurable efficiency prior to World War II. In the end, however, the study found the strongest correlation between rank achieved and an officer’s General Efficiency Rating (GER). The GER was the average of an officer’s numerical efficiency ratings, adjusted by his branch to compensate for the peculiarities of rating officers and the difficulty of assignments (U.S. War Department General Staff, Memorandum for the Assistant Chief of Staff, G-1; all references are taken from U.S. War Department, Army Ground Forces, Report of Army Ground Forces Study on Comparisons of General Officers and Colonels (Infantry), 1946).

Social historians verified the adage that Americans in World Wars I and II (as well as before) were great problem solvers. This was because the experiences that those generations had in life forced them to solve problems. This generation had more ED through life experiences (like rites of passage in cohesion and shared tough experiences), while today’s Generations X and Y possess fine motor skills but have lower ED. They demonstrate these skills in sterile, non-threatening environments. Their input and receiving of information has been greater than ever; but on the other hand, because the United States has become so wealthy, parents protect their children from those harder real-life experiences.

As a nation, the United States is sorely lacking in the development of both breadth and especially depth in thinking, which comes about in learning “how to” rather than “what to” think. ED is of the most concern. It develops through “hard knocks.” If Generations X and Y do not get this learning, then our pool of potential leaders may be smart but will likely lack both high CD and ED.

In a military context, developing CD without ED could result in creating a bunch of “war mongers.” They could figure how to kill the greatest numbers without considering the moral implications of doing so! The problem does not lie with the Army, which is now examining war across the context of operations outside fighting, but with the pool

from which the Army will draw its potential leaders. It is a substantial reason to teach adaptability in the context of a tough learning environment where people can and will fail without administrators worrying about making numbers or political correctness.

ED, or maturity, is slower in the larger U.S. culture. Citizens have been conditioned to shirk responsibility. Like the military, U.S. society suffers from “zero defects,” which translates into perfect resumes and scores on entrance exams. Resumes are filled with endless achievements, while for college entrance exams high schools students take preparatory courses and are allowed to take the exam several times to get the best score. How is this a measure of character and ability to learn when environments are so structured with strict processes on how to achieve?

Conclusion: Applications Outside the Army

In the end, TDGs in the context of a learning organization of an adaptive leader’s course provide an educational approach for building a cadet’s strength of character. Past curricula dealing with leader development used process and task training to train potential officers “what to think.” In most wars, with the United States coming in late, and after the Germans were bled down and almost beaten, it made it appear in the “glow of victory” that the U.S. system of officer production was the right one. The Army is beginning to realize that the foundation of an effective future officer corps must begin early and, to create leaders that are adaptable, know “how to think” and have intuition.

Beyond decision making in war, the use of nontactical TDGs has great applications to the corporate world as well as any organization that needs leaders who are decisive and adaptable. 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.

Current instructional approaches lack opportunities for experiencing the emotional trauma of failing within a safe environment that is needed to promote ED. TDG tools can teach adaptability, and instructors can use them to teach both 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 world views, an understanding of which will enrich one’s own self-understanding (Collins, 2001).

The Army’s highly technical environment demands that the emphasis from the outset be on *transformation*, on growing by learning to learn, not learning information alone. I have focused on the use of one important tool, the TDG. 🌟

Note: The author would also like to thank the following for their insights and assistance: Major Andrew Dziengeleski, MSG Rob Frye, Lieutenant Allan Gill, Bruce I. Gudmundsson, Mark R. Lewis, MAJ Khoi Nygon, Franklin Spinney, Dr. Steven Stewart, John Tillson, and the cadets of the Hoya Battalion.

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Related Reading

Skelton, I. (December 8, 2004). Remarks for the Association of the United States Army Space & Missile Defense Symposium and Exhibition Dinner, Yuma, Arizona.

Major **Donald E. Vandergriff** retired from the U.S. Army during the summer of 2005. He has served in numerous troop, staff, and education assignments in the United States and overseas. Don is a recognized authority on the U.S. Army personnel system, the Army culture, leadership development, and soldier training in light of how war has evolved into the fourth-generation warfare.

Don has written numerous books—*Spirit, Blood and Treasure: The American Cost of Battle in the 21st Century* (Presidio 2001), *Path to Victory: America's Army and the Revolution in Human Affairs* (Presidio 2002), and *Raising the Bar: Creating and Nurturing Adaptive Leaders to Deal with the Changing Face of War* (Center of Defense Information (forthcoming)). He has also written 50 articles and held briefings for audiences that have ranged from the Secretary of the Army Thomas White, Chiefs of Staff such as General Dennis Reimer, Vice Chiefs of Staff such as General Jack Keane, Congressmen, and think tanks. Numerous Army task forces such as the Unit Manning Task Force (later Stabilization Task Force) that worked the details for moving the Army from an individual-centric to unit-centric personnel system have honored Don by asking him to participate in their work. He has also been on panels dealing with military personnel and education reform such as the U.S. Army Future Center Symposium "Defining War" (April 2004) and the American Enterprise Institute "The Future of the U.S. Army" (April 2005).

The U.S. Army Training and Doctrine Command's Future Center hired Don to contribute to the evolution of Army Leader development programs and recommend changes that will prepare the Army's leaders and soldiers for the future. He wrote this article in his final days at Georgetown University Army ROTC. Don and his wife, Lorraine, currently reside in Woodbridge, Virginia, with their six dogs and a cat. He may be reached at vandergriffdonald@usa.net.

A tactical decision game is a decision game that puts students in the role of the commander of a tactical unit who is faced with a challenging problem. While most tactical decision games depict problems faced by the commanders of military units, a growing number deal with the situations of types dealt with by police and firefighting organizations . The tactical decision game is known by a variety of names. These include map problem, tactical problem, one-step war game, and tactical decision exercise. The use of tactical decision games, PC-based games, and battle studies are just some of the methods addressed to stimulate and develop critical thinking skills to improve the operation performance of Marines and Marine units. Military Thinking. Military thinking is a hybrid thought process that blends critical thinking skills and warfighting doctrine into a unified and focused solution. Decision Making.Â Time Criticality In order to make decisions when time is critical, the decision maker places and Leadership more emphasis on the intuitive decision-making process than the analytical. decision-making process. Commanders and leaders more readily use.