Probing the "It Depends" Variables

A Look at DSMC's Three Decades of Teaching Management in the Political Context of Changing Situations

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"It depends" has been the campus joke, motto, answer, and starting point for three decades of program management education. Frustrating to those who seek single "right" answers, a starting point for inquiry into cause and effect for those who seek deterministic answers, and a constant reminder of complexity and nuance for all of us, the "it depends" is loved, hated, or simply accepted as just part of our business.

Complexity of Challenge Calls for Practical Training

In 1971, when David Packard dedicated the Defense Systems Management School at Fort Belvoir, he called for it to be an academy of management where the best and brightest from all walks of the acquisition community could come to study and understand our complex challenges of managing defense programs. A leader of the initial curriculum, Dr. J. Ronald Fox of Harvard, identified the complexity of the challenge and stressed the need for practical training to equip leaders to manage in this complex environment. Fox called for a curriculum to help students with "...defense program management and procurement: the problems encountered, the options for dealing with these problems, and the methods for selecting from among the options." To analyze and select from options requires insight into the "it depends" drivers.

Fox also noted that the original Curriculum Committee did not stress the

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behavioral sciences' role in helping managers deal in the complexity of program management.[1] In the 1970s, I also would not have given much attention to teaching government program managers about behavioral choices and preferences. However, as I have learned more about human behavior and leadership, I have become convinced that understanding our preferences helps in choosing actions and considering others' recommendations in our complex context, where knowing what is behind "it depends" is a key to success. Our choices in teaching, learning, and leadership *depend* on our assessment of the situation in context, viewed from the lens of our preferences.

The purpose of this article is to give you my theory-based professor's perspective on how DSMC has dealt with the "it depends" challenge for the past 30 years. The three-decade perspective is mine. I attended the Program Management Course (PMC) in the 1970s and have taught at DSMC since 1980. I came to DSMC with experience in teaching at the U.S. Air Force Academy, at the U.S. Air Force Officer Training School, and as a part-time adjunct in graduate school. At DSMC I learned to question my assumptions on teaching and learning, and to tune in to what the theorists were saying about how to best help adults learn and perform.

The Little Boy

"It depends" seems to be most frustrating to those who prefer a simple and structured situation where there is one right answer. In DoD program management, the situation is often complex, with multiple paths or possible ways to act and no single right answer. PMC students, beginning in the 1970s, were introduced to this issue with an Air Force video, *The Little Boy,* which was based on the classic poem by Helen F. Buckley.[2] Prior to his death in 1986, Professor John Demodovitch of the Air Force Institute of Technology came to show and discuss the little boy's "red flower with green stem" story at the opening of each PMC class.[3] Shortly after Professor Demodovitch died, DSMC established the "Demodovitch Award" for creativity and innovation. He challenged students and faculty to be flexible and creative in the "it depends" world of constant change and complex context.

For a few classes in 1987 and 1988, the *Little Boy* video was not shown at the start of each PMC as a means to introduce the "it depends" context dimensions. As the "New Vision" PMC curriculum was implemented in 1987, the old integrated System X, or "SX" case study approach was changed to one of simulations, with a less-structured and more open-ended approach. Increasing numbers of students seemed unhappy with the more open-ended part of the SX curriculum, which often had no "right" answer, but called for creative solutions based on analysis of "it depends."

In 1988, after I became responsible for the PMC curriculum, I stopped paying for a motivational speaker on the first day of PMC and resumed presentation of the "red flower with green stem" story to all PMC classes, much as I had seen John Demodovitch do for many classes. So since 1972, most senior people in program management have seen the story in the *Little Boy* video, and have some insight into "it depends" and how individual and organizational management style may nurture or quash creativity and innovation.

Spectrum of Leadership Choices

Do you prefer rules and structure more, or an open-ended style of "no rules – just right?"

FIGURE 1. **Choice of Structure and Rules**

The *Little Boy* story gives us a way to look at ourselves and others as we reflect on our preferences for doing things "by the book" (MilSpec?), one way with one right answer—or of allowing, encouraging, or permitting creativity in multiple approaches. The story shows a teacher training a little boy to only respond when given specific directions, so he would draw a red flower with a green stem or mold a vase exactly to the teacher's class (military?) specification. Soon the boy loses his creativity and initiative, and just waits to be told what to do and when to do it.

At the end of the story, the boy changes schools, encountering a teacher who permits choice and diversity of approach (acquisition reform?), yet the boy has lost his creativity and can only respond according to the way he was trained ("wait, and I will show you how"). After three decades of use at DSMC, the phrase "red-flower, green-stem" has become a common term acquisition professionals use to describe a rigid policy or person whom they see as limiting their creative options. Despite single-right-answer training and years of following procedure and military specifications, I sincerely hope the creativity of the acquisition workforce has not been severely limited or compromised (Figure 1).

Spectrum of Leadership Choices

The "red-flower, green-stem" story illustrates our preferences and range of choices for action. One end of the spectrum—the unstructured end—is where we let people do whatever they want. Some say this, at the limit, is simply chaos—a situation of no guidance, rules, or convention where "anything goes." Even in kindergarten that does not work well.

The other end of the spectrum—the structured end—is where everything is controlled by rules and procedures—perhaps a (high-control preference) program manager's delight. This, as the *Little Boy* story shows, can kill initiative and creativity—resulting in a "work to the rule, do the minimum required" culture, which bogs down in detail and malaise.

The spectrum of choices from preference for structure and more bureaucratic rules vs. preference for unstructured flexibility and fewer rules is well addressed in behavioral theory and in our popular culture. "Dilbert," created in cartoon by Scott Adams, shows a pointy-haired (subconscious devil?) boss who provokes both hate and chuckles from most comic strip readers as his employees—the characters Dilbert, Wally, and others in the organization—ridicule the conventional structured management approach, which often fails to consider people as humans. Simply put, Dilbert's boss prefers a "red-flower, green-stem" my-way-or-the-highway approach to leadership. His employees do the minimum to get by, and we laugh at the rules and policy.

The spectrum of leadership choice for control or empowerment is illustrated in the classic 1958 *Harvard Business Review* leadership article by Tannenbaum and Schmidt, "How to Choose a Leadership Pattern."[4] Tannenbaum and Schmidt presented the issue in terms of who had (used) control—the boss or the subordinate.

As reflected in Figure 2 below, the choice for the boss ranges from total control to sharing control with subordinates, up to the point where subordinates have total control. Eastern culture might call this a choice of Yin or Yang. The choice of management approach is impacted subconsciously by our motivational assumptions on how much guidance or control is needed. On the right side of Figure 2 where the boss uses high control, the assumption is that the subordinates need a lot of direction and guidance. This is what Dr. William Glasser in *Choice Theory* calls stimulus-response psychology of management.[5]

This high-control end may be appropriate for aspects of a very complex challenge such as operating a nuclear submarine or a simple challenge of working in a fast food service line. Fear and discipline are often the high-control tools to enforce desired performance. They lead to rigid "followership" as described by Alfred Lord Tennyson in his classic poem describing the charge of the light brigade:

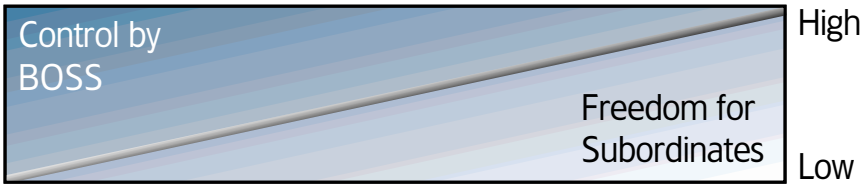
Their's not to make reply,
Their's not to reason why,
Their's but to do and die:
Into the valley of Death
Rode the six hundred.

The high-control dimension of Tannenbaum and Schmidt's graph (Figure 2) contributed to the situational leadership model of control and support, applied with wisdom in Beck and Yeager's book, *The Leader's Window*.[6] Situational leadership theory and Will Schutz' Fundamental Interpersonal Relations Orientation (FIRO) theory show that we all have preference levels (high to low) for control we want to *have* over others and control we want to *receive* from others.[7]

Similarly, we have preference levels for human support and encouragement we *give* to others and that we want to *get* from others. Figuring out the right mix for our subordinates, the job situation, and ourselves personally is an "it depends" issue.

In our business, we want people to ask why, to question, and to seek better ways, not just follow the rules. I believe this calls for generally lesser control, and often more human consideration to promote a high-performance learning organization.

FIGURE 2. **Tannenbaum and Schmidt's Theory of Leadership Choice**



In contrast to the "red-flower, green-stem" high-control end of management (which is more based on fear and stimulus-response psychology), is the low-control end for which the in-vogue word is "empowerment" (which is more based on love, with the psychology of intrinsic motivation and choice theory). Often, we are encouraged to be more at this low-control end, to think "out of the box," and to be creative. The management approach at this end is gentler, with encouragement for people to contribute their ideas and initiative. This approach is similar to one applied at Hewlett-Packard, known as "the HP way."

"It Depends" and the Program Management Course

David Packard and those who started the Program Management Course in 1971 knew that our business was very complex and that our managers needed insight and depth of understanding of a variety of areas to successfully manage DoD's programs. The PMC was set up with a case study approach for exploring the "it depends" contextual complexity of decisions in a changing political environment. Students were challenged to develop, consider, and evaluate various options. The Program Manager is often the link between the shifting needs of the users, the priorities and funding of the budget process, and the DoD policy and oversight process. The need then was, and still is, for smart managers who would make good decisions in this changing context.

Culture of Knowledgeable Inquiry

The Program Management Course design of the 1970s helped to develop a culture of knowledgeable inquiry into the complex problems of Program Management. Since the need for developing top-quality program managers was at least as rigorous and important as flight training (which takes a year or more) and master's degree programs (which take a year or more), the course probably should have been a year. However, it was limited to 20 weeks — perhaps an affordability decision simply because of regulations limiting TDY schools to 20 weeks.

The original Program Management Course designers took all they could get for time, and then designed a program around practical issues and the policies of DoD acquisition. Sections were set at 20-person classes to promote discussion, with five-person work groups to tackle case study issues. In addition to case studies going across the spectrum of acquisition management, the course included guest program managers who also helped receive and critique student decision briefings, and senior officials as distinguished guest lecturers. Library research was a focus for all students, as each had to prepare an individual study project report.

At first, the PMC culture was very competitive, with letter grades and the kind of task orientation one would expect more from a graduate program at a traditional university than from an executive development program designed to culture team players and leaders. At a time when much of the emerging psychological theory from the human potential movement focused on interpersonal communication and team performance, the early course managers went more for individual grades and the competition associated with that paradigm.

Grading Policy Can Negatively Impact Team Cooperation

My understanding of the negative impact of competition for grades on team cooperation developed in the mid-1970s when I was an Air Force major at Hanscom AFB, Mass. One of my friends came back after finishing the Program Management Course. When I asked about the course, he said it was great (the course always had a top reputation from the overwhelming majority of its graduates), but that it was really competitive. He indicated that there was a lot of pressure and competition for grades.

He said students were expected to help their work group and to work together on cases, so one had to be very clever to provide just enough good help to get by, but keep others a bit confused on the nuances. By giving or allowing just enough misinformation in his area of expertise, he could do better on the exams and have a better shot at "A's" and top-graduate designation.

I was disappointed to hear the system discouraged cooperation and encouraged dysfunctional behavior, which sounded like "cheating" other classmates from optimal learning. Fortunately, in my opinion, DSMC saw the negative aspects of competitive grading on developing cooperation and teamwork and stopped issuing letter grades in the mid-1970s. Exam and grade pressure led to a search for the one "right answer" or "school solution," when many alternatives often exist in the "it depends" world of Program Management.

Sometimes the "it depends" answer depends on who is receiving the answer. In the 1980s, I recall we had a multiple-choice question where the right answer depended on which department was to grade the question. The question had to do with the definition of "baseline." One answer worked for earned value faculty. A different answer worked for the budget, systems engineering, or policy departments. To choose an answer, the student had to consider the situational context of what the appropriate department professor wanted to hear regurgitated.

Perhaps in our "it depends" world, an appropriate use of a multiple-choice question is to ask the student what assumptions would make each of the answers correct for a particular situational context. That would stimulate creative, critical thinking, and encourage a systems perspective. It was not until I read some of Alfie Kohn's books in the early 1990s, that I understood the research and theory on why competitive grading systems work against high-performance learning and teamwork.[8]

Although many of the PMC sub-courses in functional areas had mostly specific answer exams, the integrative cases and much of the other curriculum discussed varying options for application in a complex context. DSMC recognized that "it

depends" was the first answer, and "depends on what?" would be the expected next question from professor or student co-learner.

I recall a test question in 1979 where a correct response for appropriate action began with, "Do nothing, but muddle through...." People had been listening to John Demodovitch's *Little Boy* presentation and encouraging creative thinking in different ways. Lindblom's classic 1959 *Public Administration Review* management article on "The Science of Muddling Through," had made "muddle through" an acceptable strategy when all factors were changing.[9]

Faculty Should Learn Not to Teach

In the late 1970s and early 1980s, each PMC was treated to thought-provoking presentations by Professor Jerry Harvey from The George Washington University on his classic "Abilene Paradox" story of the difficulty organizations have in coping with agreement.[10] Harvey challenged students to learn to openly confront unpopular issues. Faculty were challenged in their traditional teaching beliefs by Jerry's statement that faculty should learn not to teach.[11] Harvey wanted the student to be their own intrinsically motivated learner, and for the faculty to listen and respond more instead of pontificating.

The small lecture hall at the rear center of Building 202 was named "The Abilene Room" to recognize Harvey's contribution to management. It was fitting that the Abilene Room became the Management Deliberation Center — a place to help organizations deal with the issues of identifying and dealing with agreement in our "it depends" world.

Encouraging and Understanding Creative Thinking Skills

In the late 1980s, DSMC moved more into the "it depends" world with more unstructured, creative simulation opportunities. Research had shown that behavioral simulations had high-payoff potential for meaningful management improvement, so the College offered the "Looking Glass" simulation from the Center for Creative Leadership. When the System X cases were revised for "New Vision," the approach was changed from case study to simulations to open up the "it depends" discussions and options. The grading system was changed from the pass-fail basis, which had been in effect since letter grades were abolished in the mid-1970s, to a "pass, not-yet" policy which had been recommended by educational consultant and adult education expert Malcolm Knowles.[12]

The "New Vision" PMC changes of the 1987 timeframe were accompanied by the introduction of an individual learning program to allow students to focus their learning on self-assessed individual learning needs. Where students had common needs, the faculty was encouraged to establish and offer electives. The process was intended to allow students to hone their inquiry skills, which would promote creative thinking and continuous learning after graduation — skills essential in our fast changing world where "it depends" is often the answer.

As DSMC entered its third decade in the 1990s, the "it depends" side of individual strengths was expanded by introduction of the self-assessment aid of the PROFILOR 360-degree feedback instrument. With PROFILOR feedback, students were able to assess their own developmental needs and strengths, and plan their own work in areas of importance.

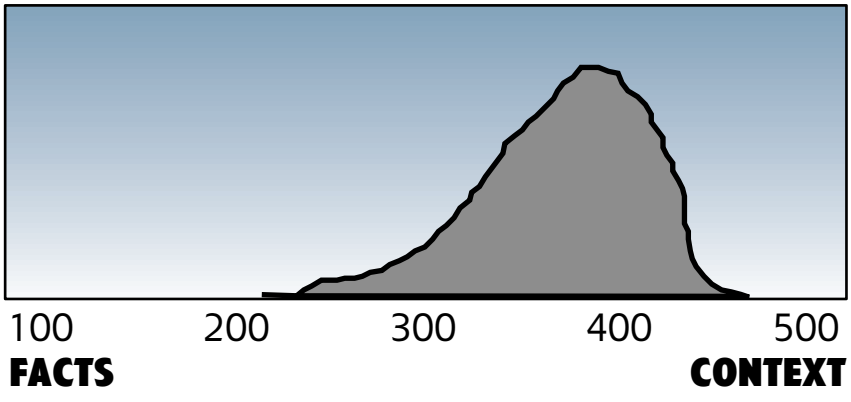
To help DSMC and the PMC students understand individual preference differences in dealing with complexity, the College used the theory developed by Harvard professor Dr. William G. Perry Jr.[13] The Perry Learning Environment Preference instrument, developed by Dr. William Moore and Dr. Carl Bryant, measures individual preference for dealing with single-right-answer facts ("red-flower, green-stem") or with complexity in context.[14] The Perry instrument results showed that the PMC learners had a fairly high group average for comfort/preference in dealing with complexity, but that there was a definite group, at the lower score side of the curve, who preferred single right answers. DSMC faculty and students see this in class as the (often vocal) minority who say, "Tell me just what is on the test," as opposed to the high-Perry-scorers who want to discuss the context, variables, and all aspects of "it depends."

The cumulative graph of PMC students' Perry scores (Figure 3 below) reflects the high average comfort level for dealing with complexity and less rigid procedures. I believe this implies that most of the acquisition workforce was ready for accelerating change and the push for acquisition reform, which was to characterize the 1990s.

Evolution of "It Depends" in DSMC's Third Decade

As the 20-week PMC ended its first 20 years, the larger system outside DSMC was calling for more specific identification of competencies and a more structured approach to educating the acquisition workforce. The Defense Acquisition Workforce Improvement Act created the Defense Acquisition University (DAU) and specified that the DSMC

FIGURE 3. **Perry Learning Style Preference of PMC Classes**



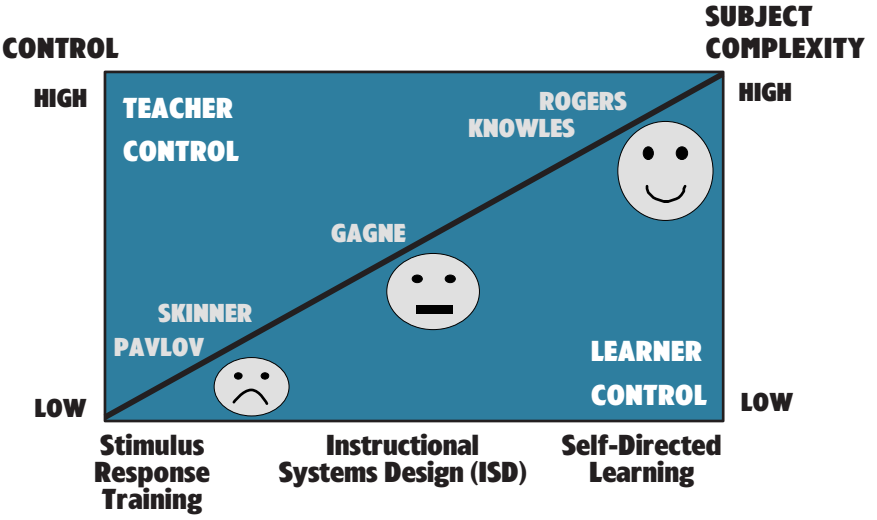
would be a key part of DAU. The new organization and the Services moved to closer management of the overall educational program. More specific competency lists were generated and re-generated, with course redesign efforts to meet the new competencies.

In July 1995, the redesign effort for the PMC with the new advanced competencies led to its designation as the Advanced Program Management Course (APMC). The law had required the completion of the 20-week Program Management Course for certain senior management positions. The 20-week PMC was eliminated, and the new advanced course — APMC — was limited to 14 weeks. A new four-week Executive Program Management Course was established as an assignment-specific "en-route" course for newly designated major Program Managers; Deputy Program Managers and Program Executive Officers (PEO); and Deputy PEOs. The new 14-week course plus the four-week course were declared sufficient to meet the law requiring the 20-week PMC.

APMC was launched with coverage of the new required advanced competencies, but with less time for students to explore the "it depends" world. The time for electives and individual learning was cut. The simulations process and even the entire simulation support department was eliminated in favor of more specific classes that were more likely to have "correct" ("red-flower, green-stem") answers for the exams. The student industry study and field trip program was canceled. However, many new cases and lessons were created to help students debate how to act in the "it depends" situations of acquisition.

The days were fully scheduled, often until 5 p.m. for class, followed by significant assignments. The students had less time for library or individual learning. PowerPoint slides with pre-prepared points became more common than evolving classroom discussions based on "it depends." However, the "red-flower, green-stem" video presented at the start of the course continued to give students a perspective on the spectrum of choices, ranging from single-right-answers to the "it depends" side of changing context.

FIGURE 4. **Knowles' Instructional Theory**



As most new courses were designed in the 1990s with the right-answer paradigm of competency analysis and instructional design, the word "training" was heard a lot more and the word "education" heard a lot less. I believe that in our desire to do what was right and respond to the demand for more specific competencies, we moved more toward the "red-flower, green-stem" solution than toward the "it depends" process solutions.

How Should We Teach Program Management?

Some favor the educational approach of very specific or even rote memory teaching of the "red-flower, green-stem" teacher, while others favor the "draw it how you like it" creative innovation end of the "it depends" teacher. When Malcolm Knowles was consulting with DSMC on educational design in the 1980s, he introduced his concepts of adult learning based on a philosophy of helping students develop their inquiry skills. Knowles maintained that this intrinsically motivated, inquiry-based, learner-driven process was superior for long-term continuous learning in an "it depends" environment.[15]

In a masterful display of his grasp of differing educational theories, Knowles drew a chart, which he called his "Theory of Learning Theories." The chart shows a continuum of theorists ranging from the "make the students learn" followers of the "red flower, green stem" persuasion (such as Pavlov and Skinner) to the "help the students assess and take control of their learning" followers of the "it all depends" end of the spectrum (such as Knowles and Rogers). Knowles' point was that for a more complex learning task and a more mature learner, the right side of the process chart applied. In other words, a teaching approach of "red-flower, green-stem" is only applicable for very simple tasks and very low-ability learners. Figure 4, above, is a version of Knowles' chart on theory, which concludes that for a more complex subject and a more mature learner, more self-directed inquiry (Andragogy) is the solution.[16]

Knowles advocates more control for the learner when the learning task is high-complexity; in other words, in an "it depends" context. His concept of Andragogy, imported from Europe, is one of trusting learners to assess and plan their own learning. As John Demodovitch used to tell PMC classes, the faculty here in this "it depends" world [DSMC] is going to assume the role of "guide on the side" instead of "sage on the stage." The more the situation is "it depends," the less lecture or "teaching" is appropriate, and the more the method needs to be investigative, with case, simulation experience, dialogue, and reflective thinking (Figure 5, bottom of next page).

The New EPMC

The new Executive Program Management Course (EPMC) process was designed according to the adult learning philosophy and psychology of Malcolm Knowles, Reg Revans, and Will Schutz. Picking up where DSMC's Program Managers' Workshop (PMW) had been in the mid-1980s, the EPMC incorporated student-driven curriculum content to meet individual needs. Learners are helped, not forced. They decide what they need, plan how they will learn it, and do their own learning. The process is called *Assess, Plan, Do.*

Prior to the course, the learners, with the help of faculty Learning Team Mentors, *assess* what they will need to focus on, *plan* what information to gather before the course, and *do* the needed activities to prepare for the most productive four weeks on campus. Often the pre-work involves visits to contractors and key people, gathering key documents, and planning a strategic review of their management approach. At the start of the course, the participants share their assessments and plans. They learn about each other's concerns, issues, and preferences. Then they engage in collegial team learning, working together to solve their problems as Reg Revans demonstrated in his action learning theory.[17]

Together, they do detailed analysis of the issues and needs of their programs, their program teams, and themselves. They plan their learning with help from assigned faculty Learning Team Mentors, peers in the course, and other faculty and individuals. The course has no guest lecturers, just what are called "guest conversationalists." Senior DoD officials and industry executives come to dialogue with learners and respond to questions in interactive sessions. Other than the scheduled team time and the guest conversationalists, students determine their own schedules.

For current policy updates and new tips, faculty specialists come to share their ideas and dialogue with the class under the "rule of three." The "rule of three" says come to the class if you have an interest/need to learn that subject, come if you have expertise you want to share in the discussion, or choose not to go if you have other needs you view as higher than the update session.

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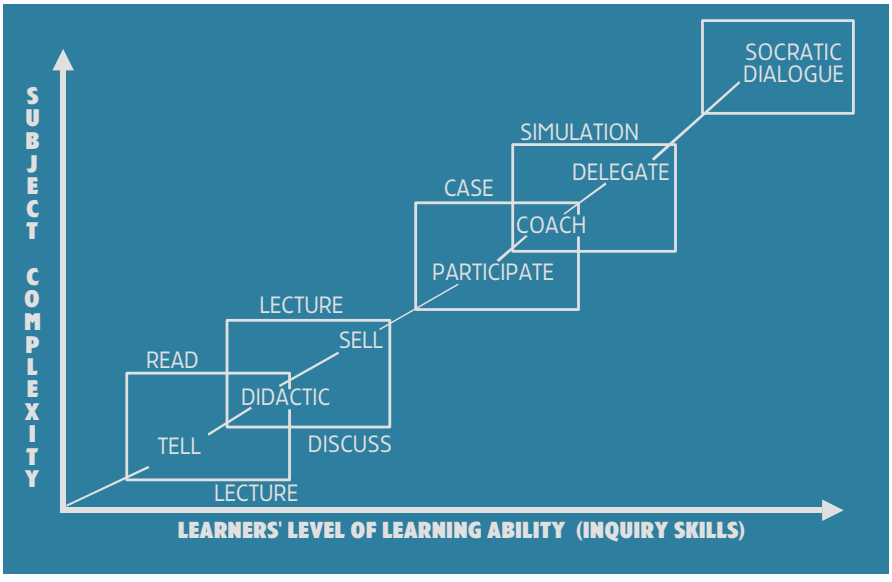
The EPMC follows the andragogical assumptions of Knowles that adults are curious to learn and will be self-directing to get what they need without being forced. The motivational assumptions are that the intrinsic motivation is best and sufficient. The course is a process design, with content variability depending on the needs of the manager student for his or her job situation.

The faculty helps EPMC learners more as consultants than what many view as "teachers." Student questioning drives the learning. This consulting relationship often continues beyond scheduled periods and may follow on for months after the course. The course allows probing of "it depends" variables in the political context of changing situations.

The senior managers who are selected for major Program Manager and Deputy Program Management positions tend to have a higher preference for dealing in context than the general population. As the PMC data several years ago showed a relatively high Perry learning style preference, the EPMC students show higher scores on the Kirton Adaption-Innovation Inventory (KAI).[18] The KAI is an instrument that assesses our preferences or style of creativity from preferring rules, bureaucracy, and evolving change (more a "red-flower, green-stem" approach) to one of preferring to waive or ignore rules, avoid bureaucracy, and try a wide vari-

FIGURE 5. **Instructional Methods Continuum**



ety of new ways. The curve of KAI scores for EPMC learners for the last few years shows a distribution higher than the general population (Figure 6 below).

DAU Developing New APMC

"It depends" will continue to present challenges to our defense managers. To better help managers in the future, the DAU is revisiting the more specific competency needs with a systematic review planned for each competency area. New courses are being developed to provide the specifics and tools managers may need. For the "top end" where managers have increasing need to assess complex issues in our "it depends" context, DAU is developing a new PMT 401 course for those qualified at Acquisition Category (ACAT) Level III. This course is being designed with primary emphasis on case study discussions to probe the various alternatives with critical thinking.

Our rapidly changing world is changing the paradigm in education from being able to know what you need to know, to being able to communicate effectively with others to find out what you need when you need it, and then to be able to communicate effectively to apply the learning. In today's culture, our elementary-school-age children know how to use a search tool to find answers their parents heard in a prepared lecture in high school or college.

Living in an "It Depends" World

The complexity of our "it depends" world will challenge us all to be able to know what we need to know when we need to know it. The problem will be in managing with "information overload." We will each individually need to make smart decisions daily on what we need to learn next in order to best do our job. Sometimes we may not know what we need to know, so mentoring and guidance may be needed. We may *not* need to sit in class listening to someone read a PowerPoint slide on a competency someone two years ago thought we should know. We may *not* need to be directed to review some computer screen text some server is giving us in a cost-effective manner, but with an approach that does not fit our best learning styles. Instead, we may need to learn what our younger generation is already learning and doing: the ability to assess what we need and to know where to go to get help. We need leaders who possess and encourage inquiry skills to innovate and adapt in a complex changing situation.As Malcolm Knowles advised DSMC in the 1980s: *"The most important skill is the skill of inquiry."* It all depends.

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FIGURE 6. **KAI Score Distribution**