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The Method to our Madness: Learning by Doing in a Criminal Intelligence Course

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Introduction

Given the opportunity to construct a major in Law Enforcement Intelligence to be delivered both face-to-face and online with the mandate that both delivery systems be equivalent, we began with the premise that everything being done currently was wrong until proven correct.

The basic working assumption was that our purpose was to produce professional practitioners, thus the work product of the student is the objective not the delivery of the instructor. From this premise, we arrived at three pedagogical design principles:

- Fundamentally students learn by doing. The acquisition of knowledge is important but only if it is relevant to an application. Contrariwise, the act of applying stimulates the act of acquiring. Activity based learning along with frequent evaluation became the foundation of the program including the course being described.
- Humans are social individuals. The paradox of human nature is as evident in a school situation as it is in all our other endeavors. Learning is an individual activity best learned in a social situation. Consequently there are some things better learned as individuals and others better learned in groups. Collaborative activities in particular reinforce the components of decision making being conducted within uncertainty.
- Learning also is a paradox. “Relaxed Alertness” is a buzzword that describes the approach to dealing with the “Catch 22” that we learn best with the stress of a challenge but worst with the overstress of a threatening challenge. Thus we attempted to provide the variety of challenges a law enforcement intelligence analyst may encounter but to do so as building blocks with a progressive increase in rigor.

The three principles are discussed along with examples of how they are employed in a progressive fashion. Significant successes included a poker game to introduce decision-making under uncertainty, Socratic questioning with combined peer review/small group procedures, and an introduction to structured analytical techniques via a semester risk analysis project.

The lack of organized resource material for Law Enforcement Intelligence surprised us. This not only required us to evaluate and adapt materials from the National Security and Enterprise Intelligence fields but to construct more detailed descriptions of assignments which we memorialized in weekly study guides and “written lectures” to supplement the available materials.

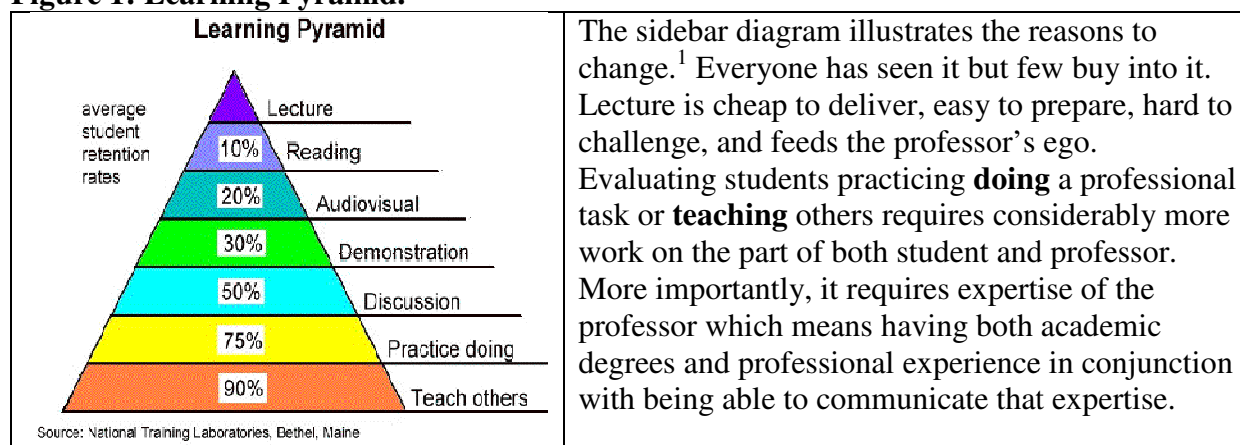
The challenge of delivering active learning assignments in a distance learning environment to students accustomed to rote memory courses required faith, hope, and a little more charity than the on campus delivery. Results were mixed.

In 2011, the Board of Trustees for The Florida State University created the College of Applied Studies with a new program, Public Safety and Security that contained a new major, Law Enforcement Intelligence. The focus of the intelligence program was chosen to be Law Enforcement rather than National Security, Military, or Business because it integrated well with a companion Law Enforcement Operations major. Also, with our branch campus being located in the panhandle of Florida, the world of national intrigue with its resources for relevant education is physically almost a thousand miles away.

Constructing the major involved making several other choices including not only what to teach but how to teach it. An early decision was that each major in the program would be available both face-to-face on campus and via the Internet as distance learning. The delivery challenge for equitable quality is patently obvious. As always, technological advancement brings with it both benefits and liabilities.

However, the greater challenge was breaking the traditional mindset of the faculty and students as to what a professional education actually entails. Fundamentally, a professional is a practitioner by definition. Producing an actionable product with one's knowledge is as basic to an intelligence student as working problems is to a natural science or math student. But that is not how social science, particularly criminal justice, is taught. We chose to break that mindset and have had some success, particularly in the introductory course, and some notable failures. Equally challenging was changing the pedagogical mindset of students, faculty, and administration from the passive lecture/rote memory model to an active product oriented model.

Figure 1: Learning Pyramid.



The final major challenge was developing collaborative activities. Although the learning pyramid (Figure 1) indicates discussion as being highly effective, our school systems have bought into the “rugged individualist, competitive” model and downplayed the accomplishment of a mission

¹ National Training Laboratories for Applied Behavioral Science, Alexander, VA., available at: <http://ohspd.blogspot.com/2009/05/pd-for-tuesday-may-5-2009.html>.

with a group that emphasizes cooperation over competition. Students have trained themselves to ignore classroom discussion since “it won’t be on the test.”

Three Pronged Theoretical Rationale

Our initial development steps included: attending meetings of likeminded educators, reviewing descriptions of other programs, and examining syllabi online. Using that information, we began the design of the course with: an examination of the competencies promulgated by the Intelligence Community and other federal agencies; our personal backgrounds in intelligence, investigation, and forensic science; and, our backgrounds in both professional training and academic education.

The rationale to make the pedagogical change to an activity-based learning model was based on three compelling reasons:

1. The **research** says so. Neuropsychological findings over the past 20 years have confirmed what good teachers have always known, “You only really learn by doing.” As **Xun Zi** said; “I hear and I forget; I see and I remember; I do and I understand.”²
2. The **profession** says so. The Intelligence Community has promulgated core competencies deemed essential for intelligence analysts.³ If students do not have the opportunity to learn and practice these competencies, their job prospects will be severely limited.
3. Our **experience** says so. “Both our backgrounds are as practitioners and have involved the teaching of other practitioners. We know by our experience what students need to know to succeed as a professional practitioner and we see our job as ensuring they get what they need to succeed.”

The Research Says So - Taxonomies in Learning

The best known of the educational taxonomies was developed by Bloom and his co-authors in the 1950’s, however, lacking the psychomotor domain, it was completely inadequate for the professional.⁴ By the 1980’s this problem had been identified to the extent that an entire issue of an educational journal was devoted to it. In one of the best papers, Carter proposed an expanded taxonomy for professional education applicable to our three pronged approach.⁵

Carter’s matrix is an extremely powerful tool when constructing curricula in the intelligence profession. He identified three domains – personal qualities, skills, and knowledge – that are roughly similar to Bloom’s domains of affective, psychomotor, and cognitive respectively. The power of Carter’s model comes when one recognizes that for each domain, there are two aspects – the **acquisition** (he termed cognitive) and the **application** (he termed affective). Somewhat

² Wikiquote. available at: http://en.wikiquote.org/wiki/Chinese_proverbs.

³ McConnell, J.M., “Core Competencies for Non-Supervisory IC Employees at GS-15 and Below” *Intelligence Community Standards (ICS) 610-3 Annex B of Intelligence Community Directive Number 610*, 01September 2008.

⁴ Bloom, Benjamin S., Editor, *Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook 1: Cognitive Domain* (David McKay Co.: New York, 1956).

⁵ Richard Carter, "A Taxonomy of Objectives for Professional Education," *Studies in Higher Education* 10:2 (1985): 135-149.

ahead of his time, today the fields of neuropsychology and cognitive psychology subsume Carter's emphasis on collaboration and experience under the rubric, brain-based learning.

The Profession Says So - Competencies

We used as our primary source for our professional competencies the "Core Competencies for Non-Supervisory Intelligence Community Employees at GS-15 and Below" promulgated by the Office of the Director for National Intelligence.⁶ These six entry-level competencies use active verbs to emphasize their product-based requirements. We used Carter's model to ensure the student obtains proficiency in them.

Our Experience Says So – Our Goals

Our goal is to produce a student capable of providing an actionable intelligence product when faced with the uncertainty characteristic of a law enforcement situation. The Criminal Intelligence course is designed as a required course for students in the Law Enforcement Intelligence major. The course provides an overview of information about intelligence but it focuses on producing products useful for law enforcement.

The course is also intended as an elective for students in the Law Enforcement Operations major. Thus the student destined to become a patrol officer knows how the information he collects will be used and why it is important while the student destined to become a commander understands how the product is produced and its capabilities and limitations for operational decisions.

Challenges

If there are all the above reasons to teach with active learning techniques, why doesn't everyone teach that way? It is impossible to teach what you cannot do yourself. Faculty need to learn the new way as well as the students. But, new learning requires the breaking of old habits whether student or instructor. This leads to frustration and confusion both of which inhibit learning. The lecture/rote memory model for learning is a comfortable habit, even if ineffective. Dealing with the frustration that comes with innovative teaching techniques was a major challenge.

A key challenge in a student centric course is the quality of the students. Even the brightest and most motivated student has been imprisoned in an educational system for the better part of fourteen years. It takes time and effort to break out of a cell of rote memorization and regurgitation best represented by the multiple choice test. The students are good at the traditional ways or they would not be taking a Junior level class. However, they strongly resist making even a beneficial change when they see a degree almost in hand.

The instructor from the academic world has even more years of learning by the lecture/rote model and worse, often years of teaching with it. The instructor from the professional world at least knows the lecture habit is debilitating but cannot break through the institutional inertia of academia. Also, the lecture/rote model is considerably easier and much less labor-intensive for the instructor to implement and thus "cheaper" for the administration.

⁶ McConnell, J.M., "Core Competencies"

A new pedagogical approach was not the only challenge. Collaboration skills are highly prized by the Intelligence Community but again, you can only learn to collaborate by doing it and to do it well requires time and practice. The “new-learning fear-factor” really comes into play with collaborative activities especially when being delivered online. Developing collaborative exercises applicable for both on campus and online students is a significant challenge for instructors. Both learning them and administering them online is more formidable.

Professors who do require group work often give up. They find that students come in several varieties. Some students tend to control the group to ensure their own good grade. Some are slackers who ride on their fellow students’ coattails learning very little and contributing less. The well-intentioned but less astute student who is completely baffled by the new requirement often just “goes with the flow.” He contributes what the group requests but learns little of what the process is designed to teach. Finally, there is the challenge of grading participation/collaboration.

Evaluation is a fundamental form of critical thinking. It also is one of the most difficult tasks we perform. There are no set, computerized analytical techniques to rely on and most of our formal schooling teaches the wrong approach anyway – evaluation of the “answer” rather than of the process. In addition, with our society’s emphasis on “getting along” and “self-esteem,” students may experience emotional problems associated with reviewing the work of one’s peers. The new approach requires frequent evaluations, constant feedback and detailed assignment memorialized in weekly study guides. Additionally, during the course of the semester, the student is graded on twenty-five assignments of varying nature to include: discussion boards, class projects, research papers, and collaboration/peer review.

Our problems were not only that there were no roadmaps, there also were no road signs comparable to those in other academic disciplines. To further compound the problem, the “literature” even disagreed about basic components, such as the “Intelligence Cycle.” Determining what to teach and how to teach it were both somewhat of an intelligence project for us as well. Because of our experience, we knew a lot we did not want to do and we knew what we wanted to accomplish but the details of exactly how to do it were quite vague.

Putting It All Together

Putting all the factors together we identified three aspects that we focused on when constructing both the major and the introductory course.

Activity based learning – The bottom line for an instructor is whether or not a student leaves the course able to “do” something he/she could not do when he/she began.

Group collaboration – Social activity enhances learning although it obviously must be structured into collaborative activities to be of value and the structure must include evaluation of individual contributions.

Threat mediated challenge – Learners have optimal styles that they prefer but if those styles do not match the requirements of the learning objective, they must develop the styles required.

Careful construction by the instructor and diligent application by the student are necessary to avoid inducing a paralyzing stress.

The Table 1 (Pedagogical Model for Law Enforcement Intelligence Major) summarizes the three aspects and introduces the rationale for our activity choices.

Table 1: Pedagogical Model for Law Enforcement Intelligence Major.

<p>Acquire versus Apply The professional practitioner applies knowledge and skills to problems in a work environment. We provide problem-based assignments with scenarios from the real world that reinforce the material the students were previously exposed to. The adage has been “Use it or Lose it” but we see two others as more apropos in education.</p>	
<p>Learn it to Use it Knowing the relevance of knowledge motivates the mental tasks to learn the knowledge. Producing an orderly pattern from seemingly random information enhances your memory as well as your understanding.</p>	<p>Use it to Learn it Using mental and physical skills to apply knowledge enhances the learning of that knowledge. We deliberately require activities that necessitate getting out of the classroom and away from the computer. Spatial skills are a key to developing other patterns.</p>
<p>Individual versus Group Learning is an individual activity best learned within a group environment. Some things are best learned as an individual and others as a group. Group study reinforces individual learning and individual study consolidates group learning. Both are required.</p>	
<p>Individual Strengths Factual Knowledge - Facts, Procedures, Principles, Structures, Concepts Information Skills- Acquisition, Recording, Remembering, Communication Mental Skills- Organization, Analysis, Evaluation, Synthesis Creativity- Imagination, Agility Decision Making- Problem Solving, Presentation</p>	<p>Group Strengths Mission – A common purpose with specific goals to be accomplished. Team Effort – Collaboration has four functions- researcher, writer, thinker, and leader- that may be shared or split up. Cognitive Bias – Group think is still a problem but individual bias is better controlled. Consensus – Agreement as to final product and mutual accountability for it.</p>
<p>Challenge versus Threat We learn best with the stress of a challenge but poorly with the overstress of a threat. Relaxed Alertness – We provide students with the challenge of a different type of assignment with a relatively unyielding time deadline but grade it easy at their first exposure to it. Progressive – We learn in small chunks therefore we present the material so that each week will build on the previous one. That reduces the threat but keeps the challenge. Limited Topics - We present only two activities at a time until at least one of them becomes somewhat automatic then we include it in a larger, more realistic problem. Emotional (aka affective, mindset) – After childhood, the most noticed emotion when learning new material is frustration. Learning to channel that frustration creates an important aspect of a productive work ethic. Mindset particularly impacts the pedagogy. Social science</p>	

students tend to approach the acquisition of analysis and proof much more casually than physical/ natural science students.

Law Enforcement Intelligence Resources

The lack of organized resource material for Law Enforcement Intelligence surprised us. This not only required us to evaluate and adapt materials from the National Security and Enterprise Intelligence fields but to construct more detailed descriptions of assignments.

Few textbooks for law enforcement intelligence existed and none focused on active learning projects. So, we adopted a slightly different approach – provide an overview text that focused on the basic problems, “The Warning Solution” by Kristan Wheaton, coupled with a case study text that provided examples of the problems, “Challenges in Intelligence Analysis” by Timothy Walton, and then construct supplemental instructional activities.⁷ This involved research into procedures comprising the intelligence cycle and reworking them as undergraduate level tasks. The key product was a combined text/exercise for a semester project that tied everything together. Its principal purpose was to introduce the concept of integrating structured analytical techniques into decision-making. The project was both educational and advisory (i.e., if you cannot handle math at this level, get into another major).

Study Guides

Our undergraduate students are accustomed to having a single primary text that provides material for memorization. In an effort to reduce misunderstanding of assignments we created one-page Study Guides for each week’s activities. These worked well but often overcommitted students focused on the summaries and neglected some critical readings.

Integrated Competency Development Threads

From previous courses we had found that the concept of a course designed around professional competency standards seemed to be unsettling to students accustomed to traditional purpose-less public school offerings. Thus the first day assignment required students to review the “Core Competencies for Non-Supervisory Intelligence Community Employees at GS-15 and Below” and to construct a personal strengths, weakness, opportunities, and threats (SWOT) analysis that evaluates their ability to meet those competencies. This not only introduced the subject matter of the course but also illustrated a work product representative of the course requirements.

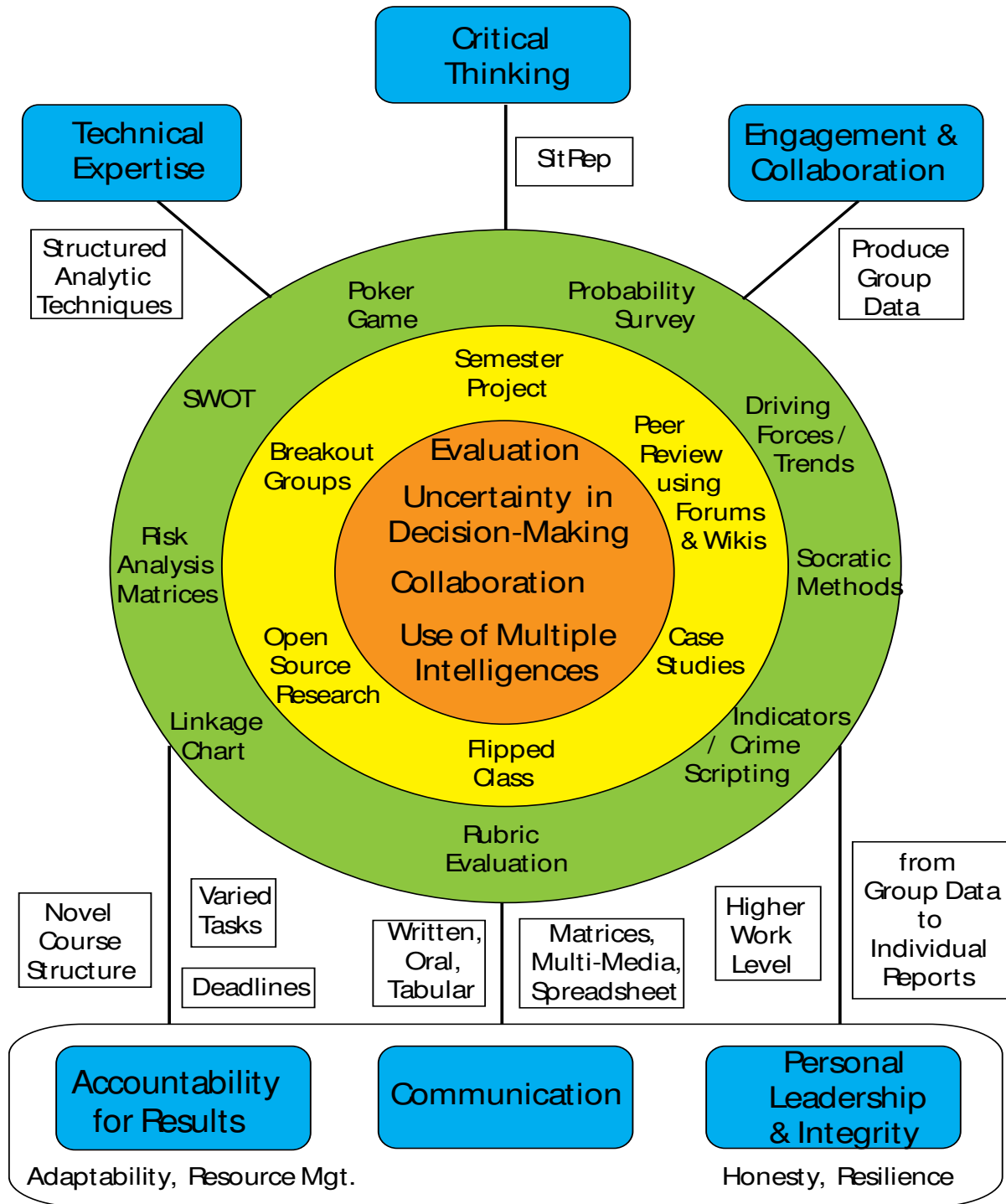
Figure 2 (Course Components) on the following page illustrates the approach we took to integrate the identified courses.

- The center circle contains the underlying goals of the course.
- The middle circle lists the generic tasks chosen to accomplish those goals.
- The outer circle identifies the specific activities representative of the generic tasks.
- The rounded rectangles outside the circles are the six Intelligence Community competencies.

⁷ Wheaton, Kristan J., *The Warning Solution: Intelligent Analysis in the Age of Information Overload* (AFCEA International Press: Fairfax, VA, 2001); Walton, Timothy, *Challenges in Intelligence Analysis: Lessons from 1300 BCE to the Present* (Cambridge University Press: New York, NY, 2010).

- The three competencies at the bottom of the diagram are common to all the activities.
- The three competencies at the top are emphasized with specific activities.
- The clear rectangles contain the key activities linking the competencies to the circle.

Figure 2: Course Components.



Active Learning and the Flipped Classroom

The philosophy of active learning stems from the ideas that student performance is the key measure of success coupled with the expertise of the professor to guide the students' performance. Therefore, students should be doing in class what they are going to be measured on

and the instructor is best utilized as a “coach” to not only point out substandard performance but to show students how to improve.

The challenge of delivering active learning assignments exists whether in a traditional on campus delivery or in a distance learning environment. Again neither students nor faculty are familiar with active learning and many resent it. Students accustomed to rote memory courses required faith, hope, and more than a little charity when confronted with the new procedures. Results online were more mixed than in the on campus class.

For active learning to work, students and faculty, as well as the administration, must buy into the idea that “doing” is the objective, not regurgitating. The flipped classroom basically rearranges the tasks during the teaching/learning process.

Table 2: Classroom Learning Comparison.

Phase	Traditional Classroom	Active, Flipped Classroom
Learn Basic Material	Teacher lectures in class – students listen, go home and study	Teacher presents online – students study at home before class
Apply Knowledge	Students do learning activities alone as homework	Students do learning activities in class with teacher support
Demonstrate Learning	Via test or project that resembles the learning activities	Via (practical exercise) or project that resembles the learning activities

For fully online delivery, a much higher level of faculty support must be available to provide the same level of support in the second phase. This support also must occur on an almost constant basis since students are working according to wildly different schedules. When the desired student performance involves nuances of analysis and presentation, the faculty workload increases dramatically. For students whose first language is not English, including deaf students whose first language is American Sign Language, acquiring the nuances is a formidable task without the traditional simultaneous two-way facial contact.

A couple of techniques are available to deal with the loss of classroom feedback. A special discussion board is set up that forwards an email to the instructor when a question is asked. The whole class can view the discussion board and even participate in the answer. Virtual office hours are also an option but we did not attempt them.

Immediate feedback is not always advisable, however. We believe students need to struggle with a problem a little before being provided “the answer.” For some assignments we provided examples only after their first attempt to follow instructions. One student complained his group ended up with a lot of suggestions and they had to ask each other why they suggested them. As he commented, “the light dawned” and the class agreed that such an approach elevated both their frustration level and their learning level.

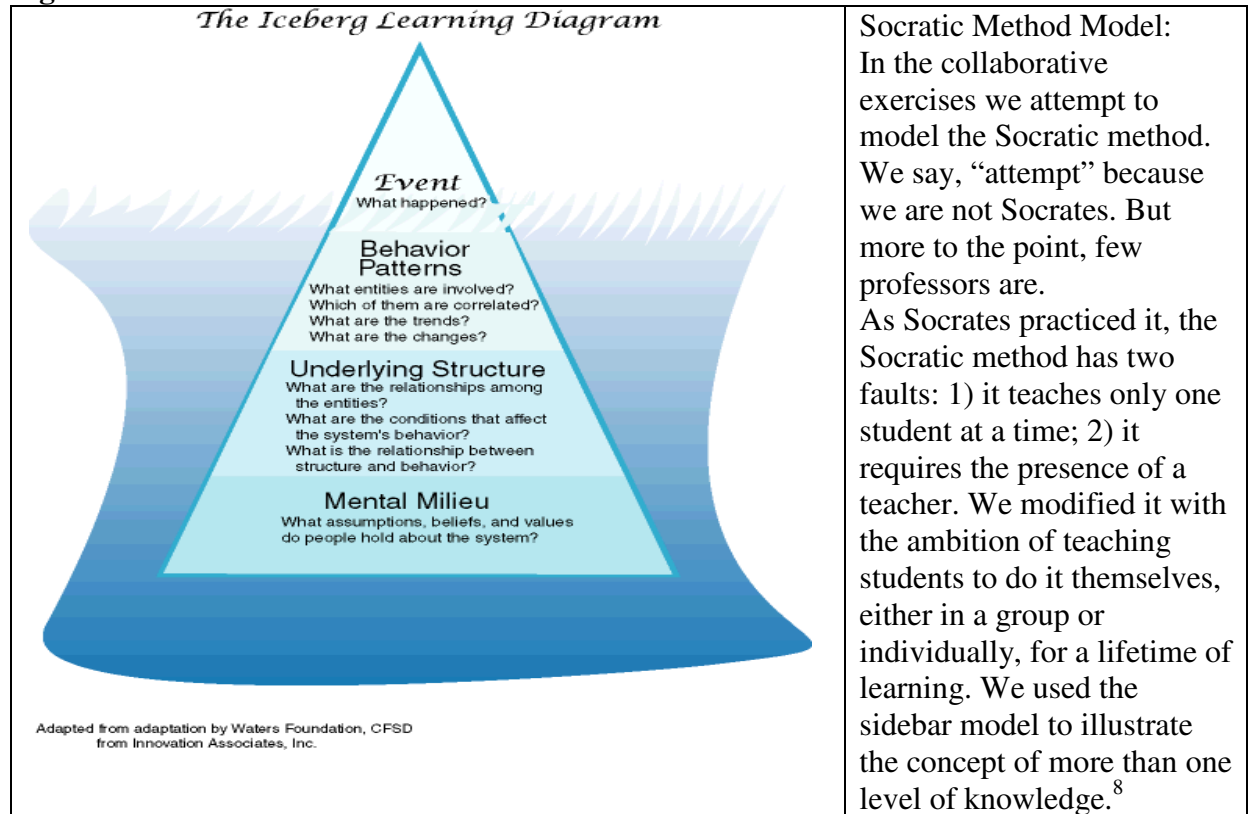
Collaboration and the Socratic Method

Teaching collaboration is a challenge but one that the Intelligence Community is really emphasizing both face-to-face and online so students have to learn it. To reduce the threat for the new type assignment, we use a two-step approach.

- We begin by teaching the student to critique the work of another to identify the problems.
- Then we focus on their learning to work together to fix the problems.

The intent is to move from a simple Peer Review of a classmate’s opinion to a collaborative Socratic Method.

Figure 3: Socratic Method Model.



The Socratic concept has a long history, about 2400 years, but is still a challenge to teach. If you are in the field, you must accept the challenge. The challenge arises for several reasons:

1. Students are not prepared. Some study together but collaboration is much more than that and they have not been required to develop the requisite skills.
2. Faculty is not prepared. The experience of the typical faculty meeting does not provide a realistic role model. To most academics, the concept of the Socratic Method, like the Scientific Method, is a catechism rather than an operational concept.

⁸ Iceberg Diagram adapted Waters Foundation, CFSD adaptation from Innovation Associates, Inc., available at: www.watersfoundation.org/.

These problems, however, exist in most organizations, perhaps because of the failure of education to maintain relevance with the real world. In Figure 3, Katzenbach & Smith provided six characteristics of collaborative groups derived from their study of effective groups. Considering their findings, we adopted the following procedures.⁹

Table 3: Characteristics of Collaborative Groups.

Katzenbach & Smith	Our Procedures
Small numbers of people	Groups consisted of 3 to 5 students
Complementary skills in team members	We deliberately did not follow this in order to promote students developing all the skills
Shared working approaches	Contrariwise, we required the students to work both alone and in groups
Common purposes for working	Common purposes are projects & grades
Specific performance goals that are commonly agreed upon	The weekly assignments included the performance goals
Mutual accountability amongst all members	Participation performance peer evaluation was created to accomplish this

Four interacting procedures were identified as key to teaching effective collaboration in an introductory course – content focus, project format, logistical infrastructure, and timing.

1. **Content** focus – The concept is to work towards a consensus on a multi-dimensional topic. This requires the application of the peer review/Socratic questioning approaches in order to use the group to “see” things that an individual may not.
2. **Format** – Requiring a specific format for conducting the discussion as well as presenting the product significantly improved the group performance. Treating the assignment as similar to an analytical technique seemed to break the propensity to just express opinions.
3. **Logistics** – Three types of online group interaction are currently available in the Blackboard course shell we use – discussion board, wiki, & blog. We used the discussion board and the wiki feeling that the blog cues students to provide unsupported opinions.
4. **Timing** – The collaboration assignment has three components, each of which requires a time interval to allow all the group adequate opportunity to respond.
 - a. Read/research relevant material and post an initial response to the top
 - b. A minimum of two comments/questions about each other’s postings
 - c. A chosen member posts the consensus “report”

The logistics and timing for the online class were a significant problem we never solved to our satisfaction. Online students often are restricted with respect to days and times they can participate. They can commit the same total time as on campus students but the scheduling is a

⁹ Katzenbach, Jon R., and Douglas K. Smith. *The Wisdom of Teams*. New York, NY: HarperCollins, 2003.

problem. Some students schedule one time period for all their work and cannot carry on an asynchronous discussion.

Semester Project

The following presents the first introductory paragraphs of the semester project – a risk analysis of the threat to a local community were a biker gang to be moving into the area. The project integrates activities representative of the intelligence process including open source research, structured analytical techniques, and a written narrative that summarizes the logic involved and presents actionable intelligence in the form of recommendations. In order to provide a uniform grading process, the instructions also included some background knowledge.

Overview

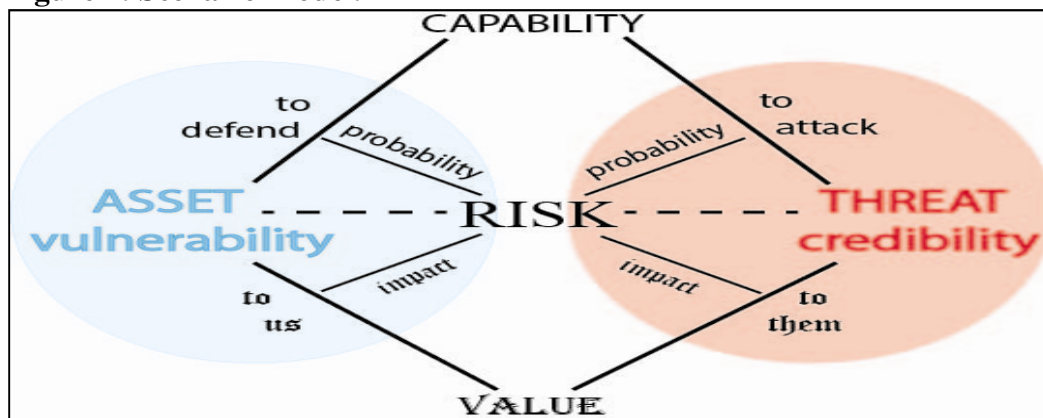
The following provides the details you need for your semester project which will be submitted in four parts. In addition, some of the material will be used for homework assignments that are designed to build the skills needed for portions of the major assignment.

Scenario

You are an intelligence analyst for your local Sheriff’s Office. The Captain comes into your office and advises you that several individuals were recently arrested on Front Beach Road for selling meth. They were taken to lock up and the deputy there observed a number of unusual tattoos on the individuals. The deputy also indicated that the other prisoners appeared to be scared of these individuals. One of the tattoos appeared to be a skull with angel wings. The Captain also told you that there has been a small spike lately in violent crime including rapes, assaults, and armed robberies along with a higher incident of overdoses.

The Captain asks you who are these people and do they represent a threat to the citizens of the County. He would like you to prepare a report for the Sheriff answering these questions along with your priority recommendations for protecting key assets in the county.

Figure 4: Scenario Model.



Our tasks begin with looking at the Risk Assessment model above. It uses an US vs. THEM approach to compare an assessment of our vulnerability against an assessment of the credibility of the threat. We use a symmetrical model to remind us that the criminal element operates much the same way as the law abiding. But, there are key differences between the law abiding and the criminal element so a critical concept is to avoid mirror imaging in our analyses.

Format

The paper is to be constructed in four parts representing the normal intelligence approach for this type problem. The four parts are:

Part 1 – Threat Assessment, an analysis of the threat posed by the biker gang; who they are, targets they like to hit, modus operandi, how they move into an area;

Part 2 – Asset Identification & Prioritization, an analysis of potential targets; what do we value in the community, and which are most vulnerable to criminal activity;

Part 3 – Risk Assessment, an analysis of the threat posed to the assets; a comparison of the credibility of the gang as a threat against the vulnerability of the priority assets;

Part 4 – Presentation for Dissemination, the findings as prepared for the Sheriff, .

Conclusion

Both the structure of the project and the Risk Assessment model are designed to encourage objective analyses by separating the aspects. For example, the first part focuses just on the threat and then the second part focuses just on the assets. Then in the third part, we put all of that together with the likelihood the group will attack each target measured against our ability and will to defend it. That is, we measure the group's capability to attack against our capability to defend so as to get a probability of the attack being successful. That probability times the consequences (harm) of a successful attack is the risk. Finally, in the last part we present our overall assessments and recommendations. These depend on guidance from the commander who may want recommendations for action against the group, indicators developed & monitored, or just to know what additional information is needed to make a reliable decision.