

## Lesson Plans for Thinking-in-Time (Module 3)

### 1. Overall Terminal Learning Objective.

*Thinking-in-Time: A Scenario-based Developmental Method for Army Officers* is designed to be conducted through four web-based interactive modules. The Terminal Learning Objective (TLO) for the four modules is:

**Action:** Demonstrate the Thinking-in-Time cognitive reasoning skill by which the *dimension of time* (past, present, and future) is used to support the decision-making process.

**Conditions:** Given computer based experiential learning activities, explanation of terms, readings, SME videos, and scenario based feedback.

**Standards:** The demonstration includes—

1. Define and explain the framework for Thinking-in-Time. (Module 1)
2. Techniques for identifying biases and understanding the past. (Module 2)
3. The Thinking-in-Time process for understanding the present. (Module 3)
4. Techniques for identifying biases and anticipating the future. (Module 4)

**Learning Domain/Level:** Cognitive/Evaluation

### 2. Enabling Learning Objective (ELO) for Module 3 – Understanding the Present

**Action:** Evaluate the Thinking-in-Time techniques for understanding the present and identifying biases and use it to support the decision-making process

**Conditions:** Given computer based experiential learning activities, explanation of terms, readings (including current doctrine), and relevant videos

**Standards:** The evaluation includes—

1. Determine the validity of a scenario
2. The effectiveness of the five-step Thinking-in-Time process:
  - (1) Develop Historical Estimate (Understand)
  - (2) Visualize Endstate and Conduct Historical Reconnaissance
  - (3) Describe Historically Sound Actions/Approaches
  - (4) Conduct Historical and Heuristic Wargaming and Retrospective Test
  - (5) Decide, Direct, and Assess
3. Determine if the Thinking-in-Time process should be incorporated into PME

**Learning Domain/Level:** Cognitive/Evaluation

**3. Scope (Module 3).** This module focuses on planning. “Planning is the art and science of understanding a situation, envisioning a desired future, and laying out effective ways of bringing that future about” (ADP 5-0, 2019). This module, in many ways is the fulcrum or linchpin of all four modules/Thinking-in-Time Course. In general, this module focuses on the center of the Framework for Visualizing Thinking-in-Time (the present). This module incorporates the techniques and terms of Modules 1 & 2 and applies these concepts, terms, and techniques as part of the five-step Thinking-in-Time process (which simply enhances existing doctrinal processes.).

As a cognitive skill, the development of Thinking-in-Time best begins with the knowledge of a process (perhaps tacitly understood), followed by frequent practice in applications accompanied by feedback. Ericsson (2006) concluded that skills can emerge through experience with tasks requiring that skill, but expert performance also requires deliberate practice. Thus, Army leaders need focused opportunities targeted at developing and refining their Thinking-in-Time skills at different points in their careers as the

scope of their responsibilities change and expand. This is especially true when the leader’s responsibilities require them to transition from predominately tactical and operational levels of thinking to broader, more far-reaching strategic considerations, outcomes, and timeframes (Burbelo, et al, 2022).

This module uses a “notional scenario” set on the US Southern border with the Mexican Cartels receiving Chinese paramilitary assistance in order to facilitate human trafficking, fentanyl smuggling, and other criminal activities. This scenario was selected based on its usefulness in illustrating the five steps of the Thinking-in-Time process. The only aspect of this scenario that is “notional” is the “*Chinese paramilitary forces are establishing operating bases in Mexico. These forces are providing weapons, training, advising, and assisting Mexican Cartels/transnational criminal organizations (TCOs). This includes small arms, indirect-fire (mortars and artillery) and unmanned aerial systems (UAS).*” All other information and scenario support is real-world, open-source, and unclassified.

The primary source for the Chinese information is Army Techniques Publication (ATP) 7-100-3, *Chinese Tactics*, AUG 2021. The primary source for the Mexican cartels/transnational criminal organizations (TCOs) is the *2020 National Drug Threat Assessment (NDTA)*, MAR 2021.

***The 2020 National Drug Threat Assessment (NDTA) is a comprehensive assessment of the threat posed to the United States by the trafficking and abuse of illicit drugs, the diversion and abuse of licit drugs, and the laundering of proceeds generated through illicit drug sales. It also addresses the role domestic groups, including organized violent gangs, serve in domestic drug trafficking. The most widely trafficked drugs are discussed in terms of their availability, consumption and overdose related deaths, production and cultivation, transportation, and distribution.***

- Introduction to the NDTA

Both documents are open source. unclassified, and “Approved for public release, distribution is unlimited.”

#### 4. Conduct of the Module.

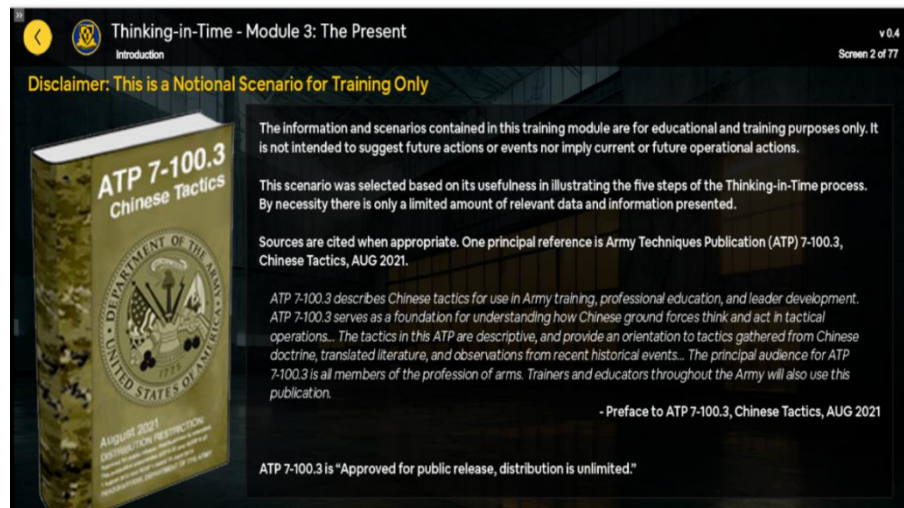
##### a. Disclaimer:

**ATP 7-100.3 describes Chinese tactics for use in Army training, professional education, and leader development.**

*ATP 7-100.3 serves as a foundation for understanding how Chinese ground forces think and act in tactical operations...*

*The tactics in this ATP are descriptive, and provide an orientation to tactics gathered from Chinese*

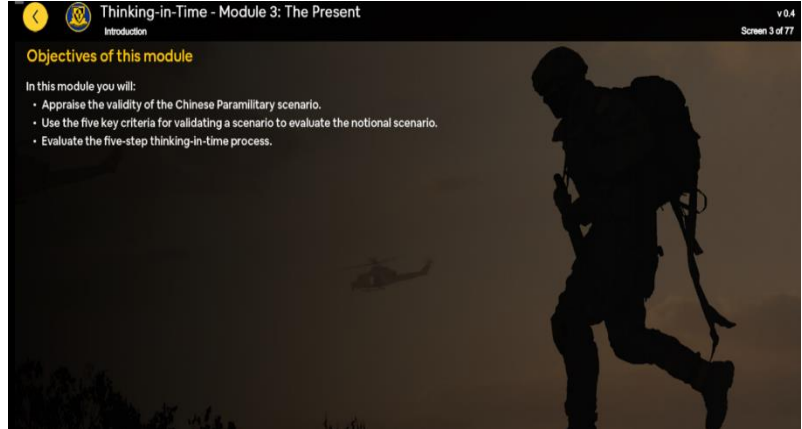
*doctrine, translated literature, and observations from recent historical events.... **The principal audience for ATP 7-100.3 is all members of the profession of arms. Trainers and educators throughout the Army will also use this publication.***



- Preface to ATP 7-100.3

**b. Objectives.** In this module the student will:

- Appraise the plausibility of the notional Chinese Paramilitary scenario.
- Use the five key criteria for validating a scenario to evaluate the notional scenario.
- Consider the effects of biases on the validation process.
- Evaluate the five-step Thinking-in-Time process.



**c. Concrete Experience:** The concrete experience uses the question: “How plausible (capable of happening) is this scenario?” to help the student think about the current/potential threat (as of March 2023) that Chinese and Mexican Cartel cooperation represents.

The purpose of this CE is threefold; first, it will familiarize them with the scenario they will use later in the module, and second, it will enable them to understand how to evaluate a scenario for validity.

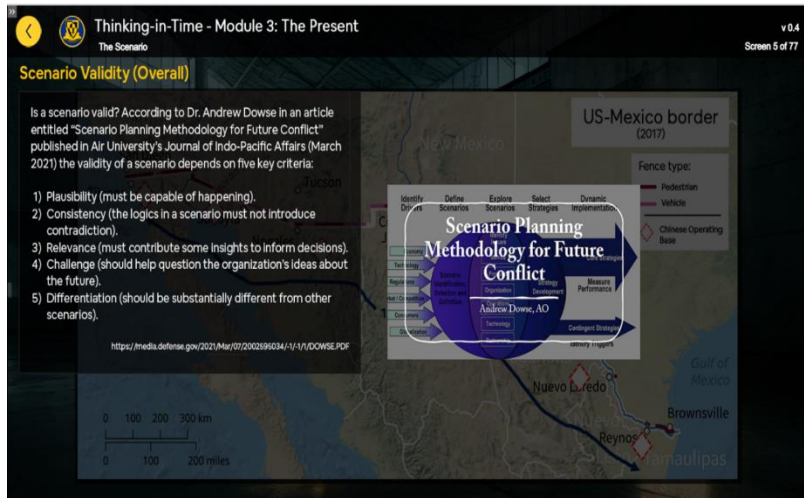
The student is instructed using an article by Dr Andrew Dowse, entitled “Scenario Planning Methodology for Future Conflict” that the validity of a scenario depends on five key criteria. They are:

- Plausibility** is something that must be capable of happening.
- Consistency** states the logics in a scenario must not introduce contradiction.
- Relevance** must contribute some insights to inform decisions.
- Challenge** should help question the organization’s ideas about the future. and,
- Differentiation** should be substantially different from other scenarios.



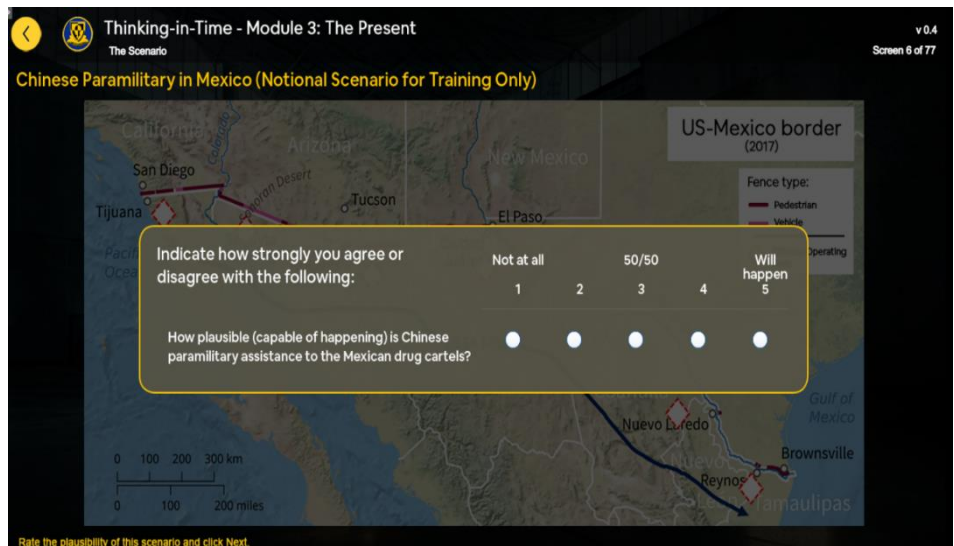
The student is then asked, “Based on Doctor Dowse's definition of plausibility, use the scale to rate the plausibility, or capability of happening, of the Notional Scenario where the Chinese paramilitary provides assistance to the Mexican drug cartels.

Click the number that best represents your view. Based on Dr. Dowse's definition of plausibility, u, or capable of happening, is Chinese paramilitary assistance to the Mexican drug cartels? Using a scale of one through ten, how plausible (or capable of happening) is this scenario? Click the number that best represents your view.”



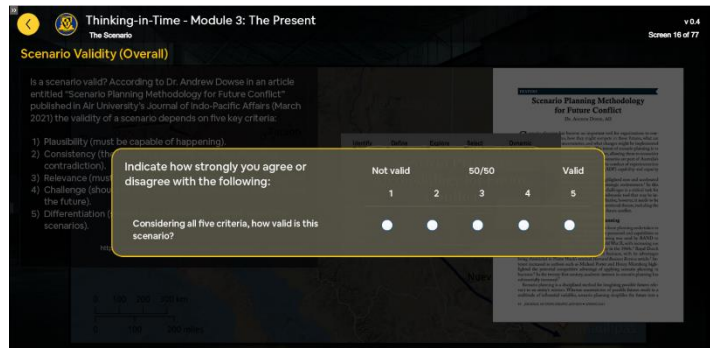
**d. Publish & Process.** After initially rating the scenario for plausibility, in order to publish and process the CE (scenario) the student does two readings from the *Chinese Tactics* ATP and watches two videos.

- One video is by the *Washington Examiner* – July 2021. It explains that Chinese money launderers and fentanyl-makers have gone into business with Mexican drug cartels, teaming up to make billions of dollars a year trafficking the powerful opioid that is killing thousands of people in the United States.
- The second is by *NewsNation* – March 2022. It documents violence shortly after Mexican authorities arrested Juan Gerardo Trevino, a high-profile cartel leader from the Northeast Cartel. The gunfight led U.S. officials to briefly close a border crossing at Laredo, Texas.
- The videos are intended to get students to think about Thinking-in-Time and recognize the plausibility of the scenario. After each reading and video, the student rerates the scenario on its plausibility.



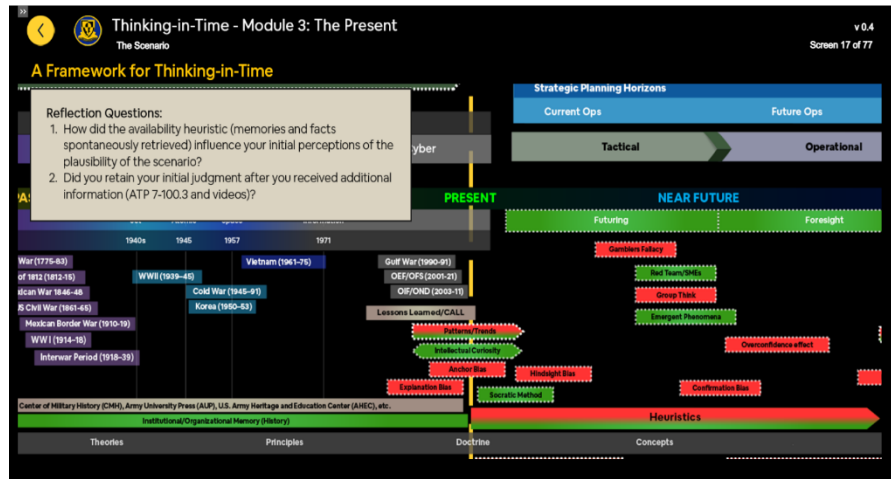


After the plausibility assessment the student is asked is the scenario *valid*. “Considering all five criteria - how valid is this scenario?”



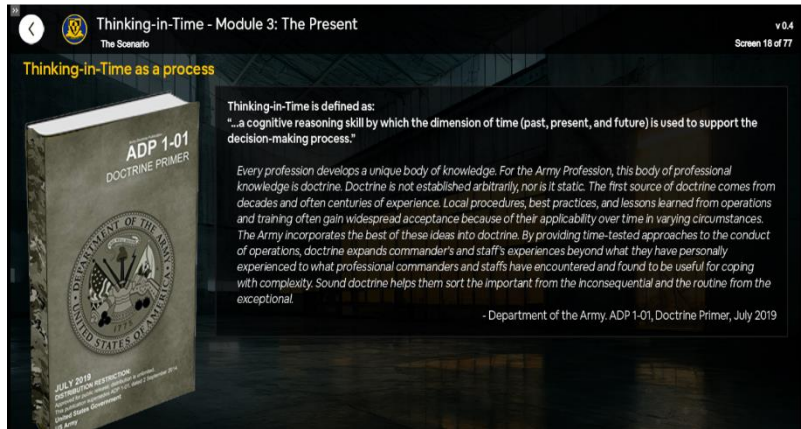
P&P culminates with two reflection questions. First, on the *availability heuristic* influencing their initial perceptions of the plausibility of the scenario, and secondly, did the student retain their initial judgment/starting value (or anchor), based on the first received information or one’s initial judgment (*anchor bias*).

Again, the intent with the CE and Publish/Process section is to get the student thinking critically about the scenario overall, especially since it is the basis upon which the Thinking-in-Time process employed later in this module.



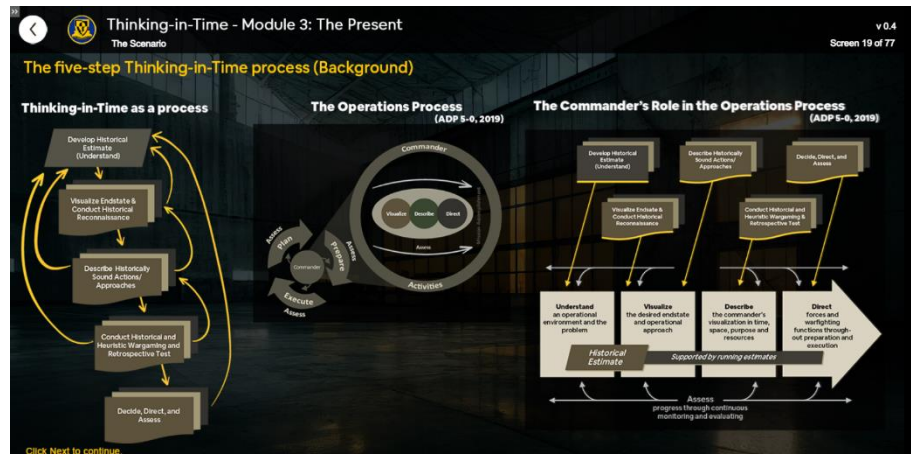
**e. GNI: Doctrinal Underpinnings of the Thinking-in-Time process.**

Thinking-in-Time is defined as: “*a cognitive reasoning skill by which the dimension of time (past, present, and future) is used to support the decision-making process.*” The question then became, how best to convey this skill to the emerging senior leader? The answer was obvious; the process must comport with doctrine. Why doctrine?



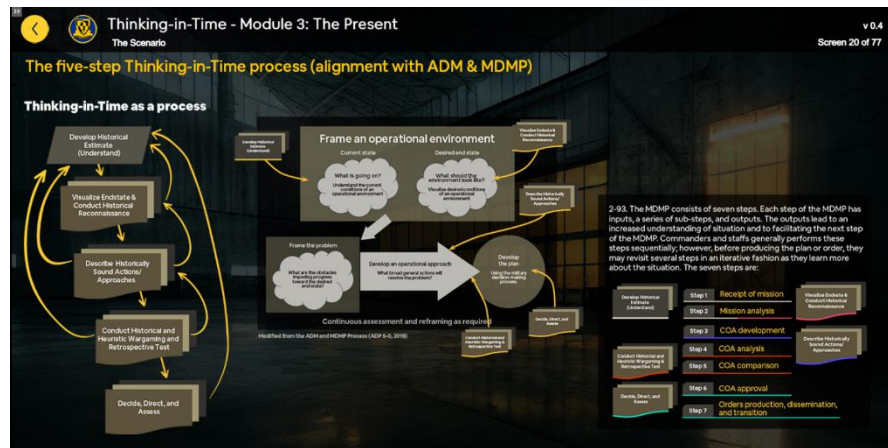
Every profession develops a unique body of knowledge. For the Army Profession, this body of professional knowledge is doctrine. Doctrine is not established arbitrarily, nor is it static. The first source of doctrine comes from decades and often centuries of experience. Local procedures, best practices, and lessons learned from operations and training often gain widespread acceptance because of their applicability over time in varying circumstances. The Army incorporates the best of these ideas into doctrine. By providing time-tested approaches to the conduct of operations, doctrine expands commander’s and staff’s experiences beyond what they have personally experienced to what professional commanders and staffs have encountered and found to be useful for coping with complexity. Sound doctrine helps them sort the important from the inconsequential and the routine from the exceptional. -- Department of the Army. ADP 1-01, Doctrine Primer, July 2019

This prompted the question: What is the best way to integrate Thinking-in-Time into the operations process (plan, prepare, execute, and assess) and ensure it complements both Army Design Methodology (ADM) and the Military Decision Making Process (MDMP)?



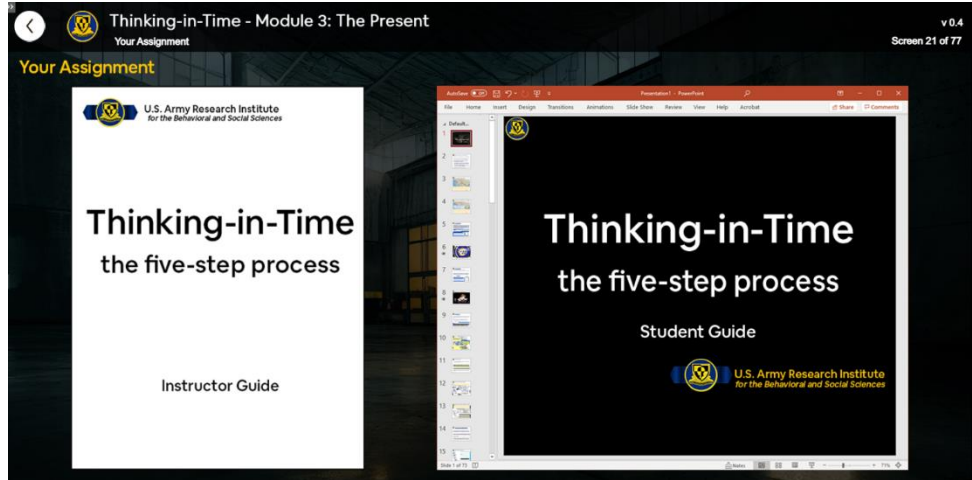
The Commander's Role in the Operations Process best captures the cognitive steps upon which to model Thinking-in-Time as a complementary process. First is the five-step Thinking-in-Time process. The next figure depicts the commander's activities in relation to the Operations Process. The final figure depicts the five steps of the Thinking-in-Time process, correlated with the Commander's Role in the Operations Process. This figure also denotes that the understand, visualize, describe, and direct steps, are all supported by running estimates, and that assessing occurs continuously.

Because the Thinking-in-Time process aligns with the commander's role in the operations process it also aligns with ADM and MDMP. The middle figure depicts the Thinking-in-Time process in relation to ADM. The right figure depicts the five steps of the Thinking-in-Time process correlated with MDMP. The Bottomline. Thinking-in-Time should be considered a skill that is employed in concert with the application of doctrine.



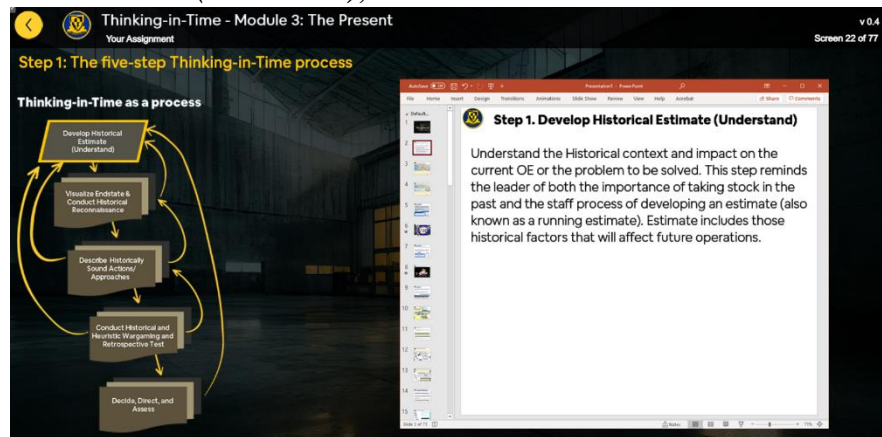
This lesson introduces the student to the new information (GNI) by having the student believe, "...they are among a group of officers selected to evaluate a possible 'Thinking-in-Time' course for potential incorporation into the Army's professional military education curriculum."

This should allow the student to achieve the “evaluation” level of learning (Bloom), without feeling as if their performance is being evaluated. Furthermore, it should allow them to review the module with a recognition that it is not finalized – this is important because it is impossible to cover the doctrinal processes to the finite level of detail required in an operational unit in the desired length of this module. Additionally, they are evaluating processes that are normally done by a team/staff – not a single individual.



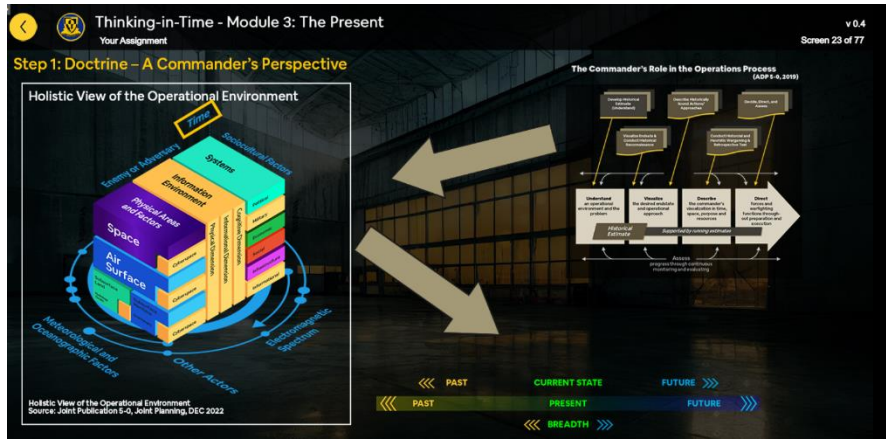
The possible lesson/class the officers are “evaluating” employs the five-step Thinking-in-Time process to illustrate techniques, biases, and develop responses to the aforementioned scenario. As part of their role as an evaluator they are instructed to assess specific aspects of the proposed lesson, as well as what is/are the optimum action(s) to determine the preferred or “school solutions.” The overarching questions they are evaluating are: (1) How effectively does the application of the five-step Thinking-in-Time process complement the doctrinal application of existing methodologies and processes? (2) Should this lesson be incorporated into the Army’s PME? The five-step process is intentionally designed to reflect the terms and steps all field grade officers are already familiar with in existing doctrinal methodologies and processes. The five steps are:

(1) **Step 1 - Develop Historical Estimate (Understand)**, reminds the leader of both the importance of taking stock in the past and the staff process of developing an estimate (also known as a running estimate). Running estimates assist commanders and staffs with understanding situations, assessing progress, and making decisions throughout an operation (ADP 5-0, 2019). Each staff section maintains a running estimate within its specified area of expertise (e.g., intelligence, fires, logistics, and personnel).





As mentioned previously, the commander's role starts with understanding. The Key to Understanding an operational environment is having a holistic view of the OE. The Rubik's cube diagram illustrates the importance of understanding the various factors. Notice that "Time" is at the top of the domains and the operational variables or PMESII-PT



This ASCOPE/PMESII-PT Matrix is a common technique for Analyzing Operational Variables and Civil considerations. The six characteristics, expressed as the memory aid ASCOPE include:

- Areas.
- Structures.
- Capabilities.
- Organizations.
- People.
- Events.

Thinking-in-Time - Module 3: The Present  
Your Assignment  
Step 1: ASCOPE/PMESII-PT Matrix - Analyzing Operational Variables

	P Political	M Military	E Economic	S Social	I Information	I Infrastructure	P Physical	T Time
A Areas	District boundary, Party affiliation areas	Coalition/N bases, historic ambush/IED sites	Bezans, shops, markets	Parks and other meeting areas	Radio, TV, newspapers Where people gather for word-of-mouth	Irrigation networks, water tables, medical coverage	Geography, climate and water in the area of operations, Grand Canyon, Yellowstone, etc.	How time is perceived by various actors in the OE, Time zones.
S Structures	Town halls, government offices	Police (Police HQ, Military HQ locations)	Banks, markets, storage facilities	Churches, restaurants, bars, etc.	Cell, radio, TV towers, print shops	Roads, bridges, power lines, walls, dams	Manned structures, Mt. Rushmore, Stone Men., etc.	Ancient sites, historic districts, modern cities.
C Capabilities	Dispute resolution, insurgent capabilities	Security posture, strengths and weaknesses	Access to banks, ability to withstand natural disasters	Strength of local and national ties	Literacy rate, availability of mobilephone service	Ability to build and maintain roads, walls, dams	Key terrain, barriers, terrain, reservoirs	Does not favor enemy vehicles, aircraft, communications systems.
O Organization	Political parties and other power brokers, UN	What units of military, police, insurgent are present	Banks, large land holders, big business.	Tribes, clans, families, youth groups, NGOs/ICOs	News groups, influential people who pass word	Government ministries, construction companies	Climatology /weather stations/ Natural resources agencies (DNR), farm bureaus, etc.	Work week, business hours, school dates, schedules, etc.
P People	Governors, councils, elders	Leader from coalition, UN and insurgent forces	Bankers, landholders, merchants	Religious leaders, influential families	Media owners, multipls, heads of powerful families	Builders, contractors, development councils	Scientists, professors	Punctual, patience level, watches?
E Events	Elections, council meetings	Lethal/nonlethal events, loss of leadership, operations, anniversaries	Drought, harvest, business open/close	Holidays, weddings, religious days	ID campaigns, project openings, CIVICAS events	Road or bridge constructions, well digging, scheduled maintenance	Festivals, pilgrimage sites	Daylight savings time

The operational variables are fundamental to developing a comprehensive understanding of an O E. Historical factors are extremely significant in each of these.

*The command and unit historian is an active member of the commander's staff, and is a part of all planning and operational decision making.*

*The historian provides historical information, insights, and perspective to help with decision making, operational planning, and combat readiness. In addition, the historian draws on military history to support training and leader development, promote morale and esprit de corps, and foster historical-mindedness in the command.*

*To most effectively support the commander and staff and carry out responsibilities, the historian reviews the operational situation, attends commander and staff meetings and briefings, and participates in planning and operations.*

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**To most effectively support the commander and staff and carry out responsibilities, the historian reviews the operational situation, attends commander and staff meetings and briefings, and participates in planning and operations.**

- ATP 1-20, Military History Operations, JUN 2014



This is the Army’s actual M, I, and T of the PMESII-PT analysis from the Chinese Tactics ATP. This information will assist you in your broader understanding of the scenario.

Note China’s view of Time. China has historically taken a much longer view of time than the United States. The ramifications of these two different mindsets cannot be understated. It effects everything from political and strategic objectives to the most basic tactical operation.

**Thinking-in-Time - Module 3: The Present**  
Your Assignment  
v 0.4  
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**Step 1: ASCOPE/PMESII-PT Matrix – Analyzing Operational Variables**

	P	M	E	S	I	I	P	T
	Political	Military	Economic	Social	Information	Infrastructure	Physical	Time
A								
S								
C								
O								
P								
E								

**Military:**

- Growing use of high-technology weapons systems such as fifth-generation and low-observable aircraft, ballistic and cruise missiles, precision munitions, and networked warfare.
- Ongoing top-to-bottom reform of the PLA, including widespread professionalization.
- Expansion of standoff precision munitions and other antiaircraft capabilities.
- Establishment of hardened military facilities on islands, both natural and manmade, throughout the Western Pacific.
- Gradual expansion of PLA expeditionary capabilities, particularly throughout the Western Pacific and Indian Oceans.

**Information:**

- Extensive use of cyber activities—official, unofficial, and third party—to influence conditions domestically and abroad.
- Ongoing active People's Republic of China (PRC) cyber activities attempting to extract sensitive or classified information from foreign networks, particularly those in defense industries.
- Sophisticated information operations campaigns to influence both global and regional politics.

**Time:**

- The Chinese have historically taken a much longer view of time than the United States.
- The PLA has deliberately chosen to adopt a more Western view of time as part of its ongoing military reforms.

- ATP 7-100.3, *Chinese Tactics*  
AUG 2021

Running estimates assist commanders and staffs with understanding situations, assessing progress, and making effective decisions throughout an operation. Effective plans and successful execution hinge on current and accurate running estimates with relevant information.

Running estimates cover essential facts and assumptions, including a summary of the current situation. While the value of a historical estimate may not be readily apparent at the time of preparation, the value comes from the increased understanding resulting from the preparation itself.

**Thinking-in-Time - Module 3: The Present**  
Your Assignment  
v 0.4  
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**Step 1: Develop Historical Estimate (Running Estimates)**

**Thinking-in-Time as a process**

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    graph TD
      A[Develop Historical Estimate (Understand)] --> B[Visualize Findings & Conduct Historical Reconnaissance]
      B --> C[Describe Historically Sound Analytic Approaches]
      C --> D[Conduct Historical and Hermetic Warepping and Retrospective Test]
      D --> E[Decide, Direct, and Assess]
      E --> A
  
```

**Step 1. Develop Historical Estimate (Understand)**

**Chapter 1**

**Running Estimates**

1-54. A running estimate is the continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are supportable. Running estimates assist commanders and staffs with understanding situations, assessing progress, and making decisions throughout an operation. Effective plans and successful execution hinge on current and accurate running estimates.

1-55. Each staff section maintains a running estimate within its specified area of expertise (for example, intelligence, fires, logistics, and personnel). When building and maintaining a running estimate, staff sections monitor current operations and continuously consider the following in context of the operations:

- Facts.
- Assumptions.
- Enemy status including location, activity, and combat power of subordinate units from two levels down.
- Enemy status including composition, disposition, and strength.
- Civil considerations.
- Conclusions and recommendations.

1-56. Running estimates cover essential facts and assumptions, including a summary of the current situation. Running estimates always include recommendations for anticipated decisions. During planning, commanders use these recommendations to select valid (feasible, acceptable, suitable, distinguishable, and complex) COAs for further analysis. During preparation and execution, commanders use recommendations from running estimates to inform their decision making.

1-57. While staffs maintain formal running estimates, the commander's estimate is a mental process directly tied to the commander's visualization. Commanders integrate personal knowledge of the situation, analysis of the mission variables, assessments by subordinate commanders and other organizations, and relevant details gained from running estimates.

1-12 ADP 5-0 31 July 2019

This is an excerpt from a recent article in *Military Review* titled: "Utilizing Army Historians in the Operational Force." The deliberate preparation of a historical estimate would be a good start to seeing, “a historian who applies history and the related professional skill sets as an integrated member of the staff to enhance the operational effectiveness of the unit.”.

**Thinking-in-Time - Module 3: The Present**  
Your Assignment  
v 0.4  
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**Step 1: Develop Historical Estimate (Running Estimates)**

**Thinking-in-Time as a process**

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1-12 ADP 5-0 31 July 2019

**Military Review**

**Utilizing Army Historians in the Operational Force**

What is not commonly seen is a historian who applies history and the related professional skill sets as an integrated member of the staff to enhance the operational effectiveness of the unit. This is not limited to just the Army; the historical field in general has trended away from applying its expertise in a utilitarian matter and has instead concentrated on producing academic history. The Army's current practice of not integrating historians into the Army's operational processes does the Army a disservice. This needs to change. Historians have unique capabilities and knowledge that can increase the Army's ability to fight and win our nation's wars.

- Utilizing Army Historians in the Operational Force, *Military Review*, MAR 2022  
Capt. Michael Loveland, U.S. Army Reserve

It could also help overcome the author’s concerns that, “the Army’s current practice of not integrating historians into the Army’s operational processes does the Army a disservice.”

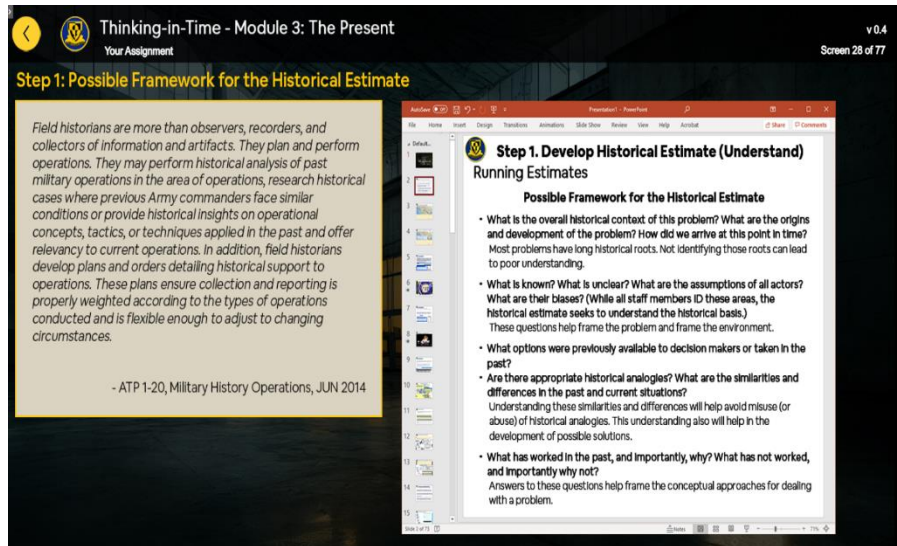
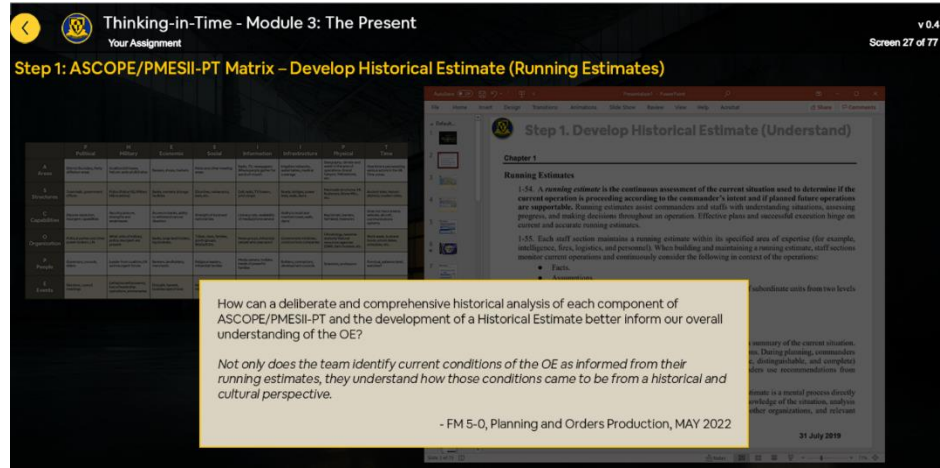
How can a deliberate and comprehensive historical analysis of each component of ASCOPE and PMESII-PT and the development of a Historical Estimate better inform our overall understanding of the OE?

Recall from module 2 that many experts argued our failure to understand the historical context in Afghanistan hindered, and in many cases, undermined our efforts.

What are the TTP's for conducting a historical estimate? The excerpt from ATP 1-20, Military History Operations, speaks to what might be covered in the estimate:

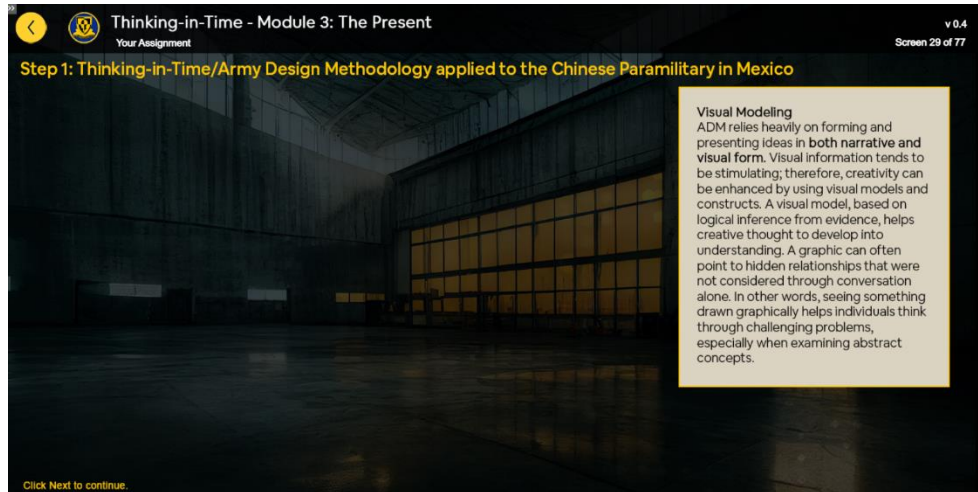
It would likely include historical analysis of past military operations in the area of operations, research historical cases where previous Army commanders face similar conditions or provide historical insights on operational concepts, tactics, or techniques applied in the past and offer relevancy to current operations.

On the right is a Possible Framework for the Historical Estimate. It was adapted from the U.S Army War College’s Framework for, Thinking about Strategic Issues. Answering these questions can help in identifying historical roots, help frame the problem and the environment, help in understanding the similarities and differences of historical analogies, and in the development of possible solutions.”.





Don't forget that the five-step thinking in time process aligns with Army design methodology. The first frame of ADM is understanding the current state. One way to do that is using visual modeling. ADM relies heavily on forming and presenting ideas in both narrative and visual form. The next screens help to frame the current state.

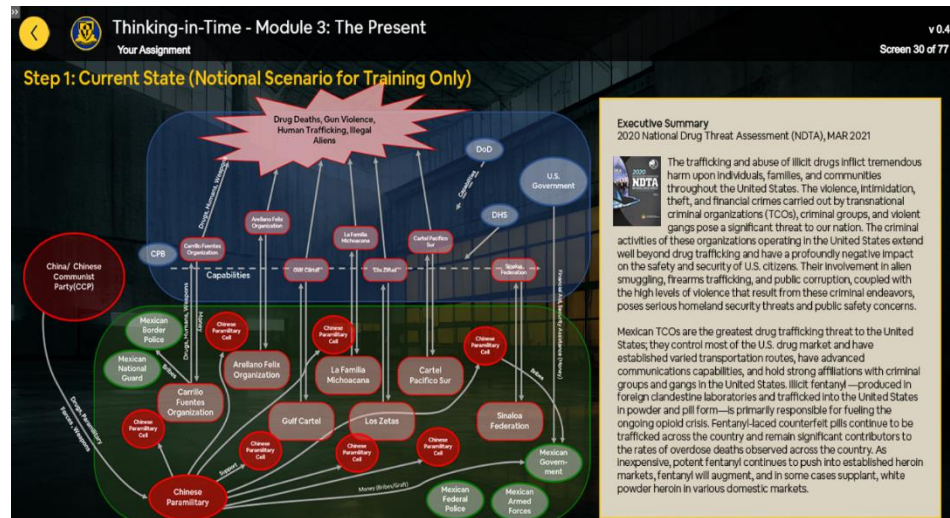


Remember also that the Chinese paramilitary involvement with the Mexican Cartels is notional for scenario purposes only. The narrative is actual unclassified data from the 2020 National Drug Threat Assessment, produced by the DEA’s Intelligence Program to inform U.S policy\_makers and the American public about the threat posed by drug trafficking and associated transnational organized crime in the United States.

This model depicts the influence of the Chinese Communist party within Mexico.

The CCP is represented by the red oval to the left.

The large green oval on the bottom represents activities occurring within Mexico. The large blue oval on the top represents activities and effects occurring in the United States.



For the purposes of the model, the dotted line running through the bottom of the blue oval represents the southern U.S. or international border. The model shows the CCP providing drug precursors and drugs, paramilitary forces, and weapons to the Chinese paramilitary cell in Mexico. It appears that the CCP, is reinforcing the drug-cartels as a part of their overall campaign to degrade the U.S and “win without fighting.” That cell, in turn, is supporting the six operating bases where the 250-man cells are located. Those six cells are advising and assisting the six major cartels in Mexico, depicted by the larger red ovals. The green ovals within Mexico represent various Mexican government activities or organizations. Starting on the far right is the Mexican government, below that is the Mexican armed forces, the Mexican federal police, and on the far left, the Mexican National Guard and the Mexican border police. Remember from the scenario that the cartels are sending drugs, conducting human trafficking, and smuggling weapons north to their outposts or operations within the boundaries of the United States. These



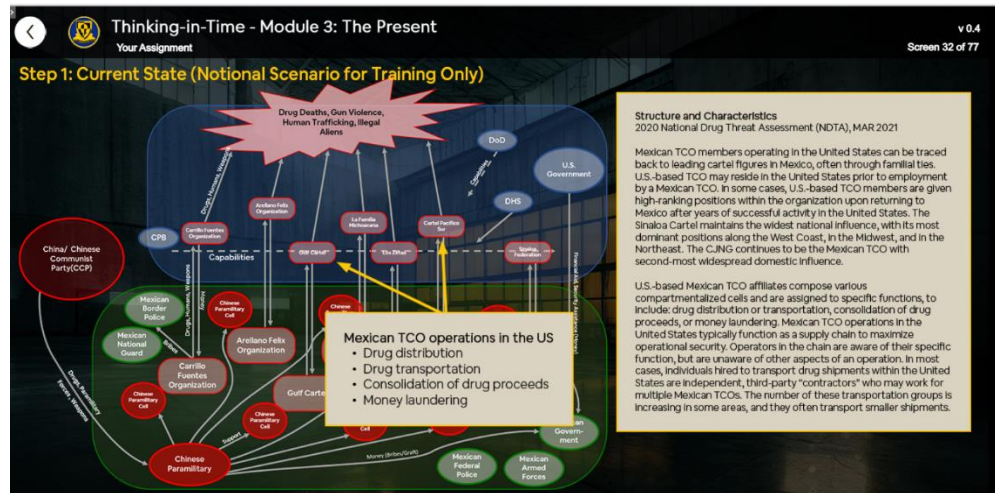
criminal organizations, or outposts, in the United States are sending money back to their parent cartels in Mexico.

The explosion in the top represents the effects occurring in the United States, this includes nearly 100,000 fentanyl overdose deaths a year, Gun violence, and Human Trafficking. At the far right of the United States' oval is, the U.S government, which is providing financial aid to the Mexican government. Also shown is the DOD providing capabilities to the Customs and Border patrol and the department of Homeland Security which is conducting operations on the southern border.

This narrative is directly from the 2020 National Drug Threat Assessment. That assessment explains: The trafficking and abuse of illicit drugs inflict tremendous harm upon individuals, families, and communities throughout the United States. The violence, intimidation, theft, and financial crimes carried out by transnational criminal organizations, criminal groups, and violent gangs pose a significant threat to our nation. The criminal activities of these organizations operating in the United States extend well beyond drug trafficking and have a profoundly negative impact on the safety and security of U.S citizens. Their involvement in alien smuggling, firearms trafficking, and public corruption, coupled with the high levels of violence that result from these criminal endeavors, poses serious homeland security threats and public safety concerns.

Mexican TCOs are the greatest drug trafficking threat to the United States. They control most of the U.S drug market and have established varied transportation routes, have advanced communications capabilities, and hold strong affiliations with criminal groups and gangs in the United States. Illicit fentanyl, produced in foreign clandestine laboratories and trafficked into the United States in powder and pill form, is primarily responsible for fueling the ongoing opioid crisis. Fentanyl laced counterfeit pills continue to be trafficked across the country and remain significant contributors to the rates of overdose deaths observed across the country. As inexpensive, potent fentanyl continues to push into established heroin markets, fentanyl will augment, and in some cases supplant, white powder heroin in various domestic markets.

Mexican TCO operations in the US



Drug Smuggling and Transportation Methods

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Your Assignment  
v 0.4  
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**Step 1: Current State (Notional Scenario for Training Only)**

**Drug Smuggling and Transportation Methods**  
2020 National Drug Threat Assessment (NDTA), MAR 2021

Mexican TCOs transport the majority of illicit drugs entering into the United States, moving product across the SWB using a wide array of smuggling techniques. Cartels transport bulk quantity, polydrug loads via commercial and passenger vehicles as well as via underground tunnels. These cross-border tunnels originate in Mexico and lead into safe houses on the U.S. side of the border. TCOs exploit major highway routes for transportation and the most common method employed involves smuggling illicit drugs through U.S. POEs in passenger vehicles with concealed compartments or commingled with legitimate goods on tractor-trailers.

Mexican TCOs also transport illicit drugs into the United States aboard commercial cargo trains, passenger buses, and maritime vessels clandestinely or through official maritime POEs. Mexican TCOs rely on traditional drug smuggling methods, such as the use of backpackers and couriers, when smuggling drugs across remote areas of the SWB into the United States. Mexican TCOs also exploit various aerial methods to transport illicit drugs across the SWB. These methods include the use of ultralight aircraft and unmanned aerial systems (drones) to conduct airdrops.

**Drug Smuggling & Transportation Methods**

- Commercial vehicles
- Passenger vehicles
- Underground tunnels
- Commercial cargo trains
- Passenger buses
- Maritime vessels
- Backpackers
- Couriers
- Ultralight aircraft
- Unmanned aerial systems

Mexican Security Forces

Mexico has about 370,000 police, split into federal, border, traffic, state, and municipal police. Corruption is a common problem. Most Mexicans believe the police are under the control of organized crime, according to a recent study, and

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**Step 1: Current State (Notional Scenario for Training Only)**

**Mexican Police (370K Total)**

- Federal Police
- Border Police
- Traffic Police
- Municipal Police

**Mexican Armed Forces (80K)**

**Mexican National Guard (60K)**

**Mexican Security Forces**  
Source: <https://insightcrime.org/mexico-organized-crime/news/mexico/#is>

Mexico has about 370,000 police, split into federal, border, traffic, state and municipal police. Corruption is a common problem. Most Mexicans believe the police are under the control of organized crime, according to a recent study, and underreporting of crimes is a serious and ongoing issue. Mexico's roughly 80,000-strong armed forces are also involved in domestic security operations. However, despite attempts at reforms, the military continues to commit abuses during the course of its crime-fighting duties, almost all of which go completely unpunished. In addition to long-standing human rights concerns, critics have also pointed out that the deepened involvement of the military in domestic security has not led to long-term reductions in criminality or violence.

Mexico has a long history of complicated security ties with the United States. Although the two countries have cooperated in the past on many issues related to organized crime, friction in the bilateral relationship has often been evident, and US anti-drug, customs and intelligence agents have a limited capacity to operate in the neighboring country. Mexican crime groups have also demonstrated an ability to infiltrate and corrupt US law enforcement agencies.

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President Andrés Manuel López created yet another security force known as the National Guard, to try and quell rising violence and insecurity. The force has some 60,000 members and was established as an alternative to the military in the fight against organized crime with an emphasis on citizen security.

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Corruption is a common problem. Most Mexicans believe the police are under the control of organized crime, according to a recent study, and underreporting of crimes is a serious and ongoing issue. Mexico's roughly 80,000-strong armed forces are also involved in domestic security operations. However, despite attempts at reforms, the military continues to commit abuses during the course of its crime-fighting duties, almost all of which go completely unpunished. In addition to long-standing human rights concerns, critics have also pointed out that the deepened involvement of the military in domestic security has not led to long-term reductions in criminality or violence.

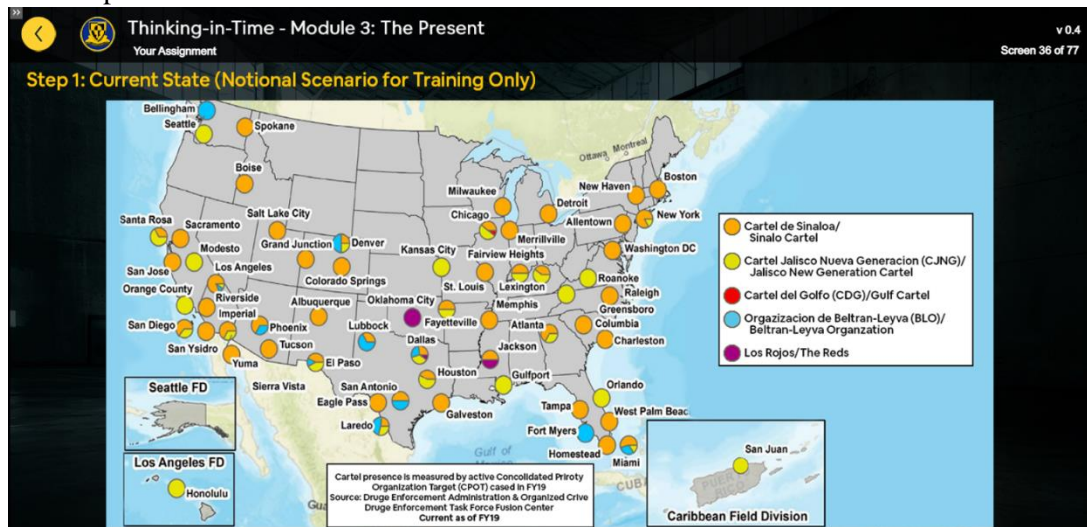
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### Actual Drug Cartel Areas in Mexico

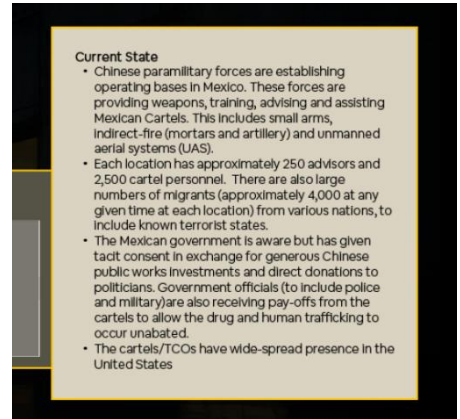
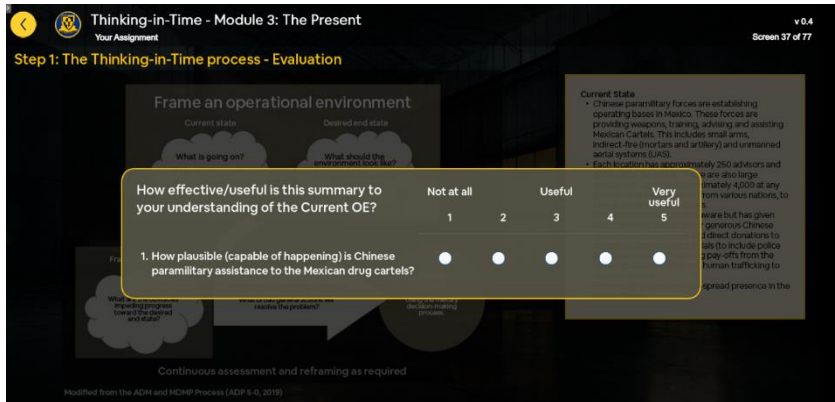


### Actual Drug Cartel Operations in the US



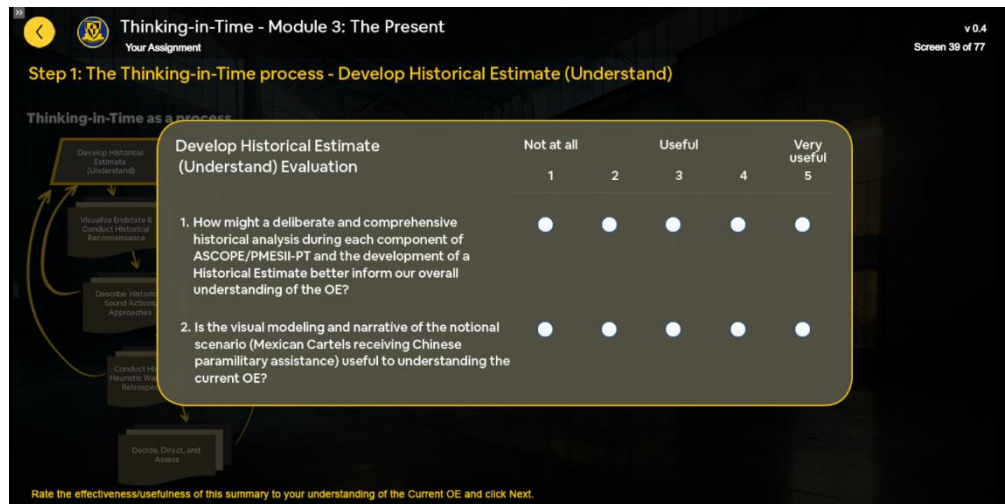


The first step for framing an operational environment is: "Framing the Current state". After the visual modeling and actual DEA intelligence, read this summation of the Current State for this scenario.



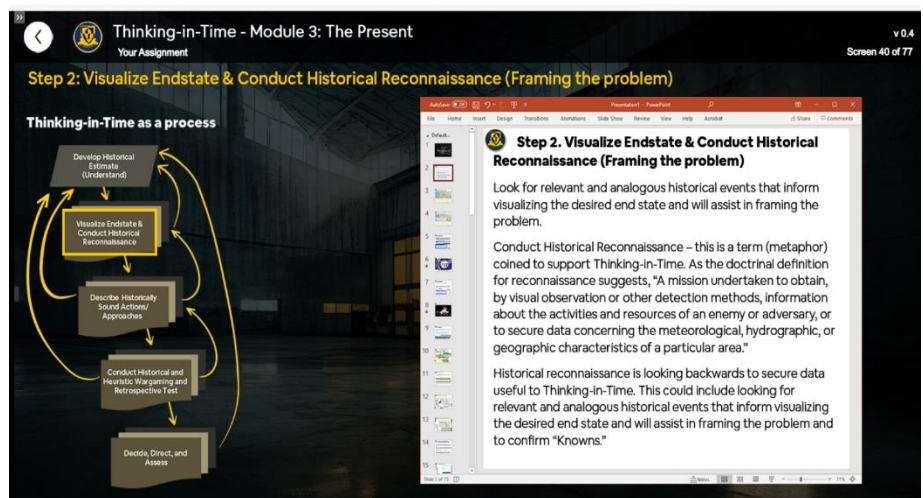
Rate how effective or useful is this summary of the Current OE?

This concludes step 1. Please rate the two areas based on what you learned in step 1.



(2) Step 2 - Visualize Endstate and Conduct Historical Reconnaissance, underscores the need

to take actions to confirm one's Understanding. Just as a commander would commit reconnaissance assets to confirm enemy size and disposition on a proposed objective, the leader thinking-in-time needs to confirm their estimate of the past. This could include looking for relevant and analogous historical events that inform visualizing the desired end state and will assist in framing the problem and to confirm "Knowns." This may include looking for "weak signals" or seeking to confirm known unknowns (validate assumptions, planning factors, interrogate relevant and analogous historical events).



DRAFT

This is a **sample analogies matrix**. Listed in the left column are the mission variables, the definitions have been modified to support analogy comparison. Across the top row are selected historical and recent operations to compare with our framing of the OE and problem.

You may recall that the proposed Historical Estimate had several questions to research. Specifically,

- 1, Are there appropriate historical analogies?
- 2, What are the similarities and differences in the past and current situations?

Mission Variable	Mexican-American War (1846-48)	Mexican Expedition (1916)	Chinese support to N. Korea (1950-53)	Chinese support to N. Vietnam (1950-68)	Soviet support to Cuba (1962)	JTF-6/JTF-North (1989-Present)	Operation LoneStar (2021-Present)
Mission (Nature of Operations)	7	6	5	5	4	8	7
Enemy (Type, goals, will)	6	6	7	7	2	9	9
Terrain & Weather (includes location & climate)	10	10	6	4	0	10	10
Troops & Support (#, type, capabilities, and condition of friendly forces)	2	2	3	3	0	4	3
Time available (required for planning, preparing, mobilizing, setting the theater)	1	1	0	0	2	1	1
Civil considerations (disposition of local populace to support for US/allied operations)	2	2	1	1			
Informational considerations (media capabilities to reach/influence own people, and other nations)	2	2	1	1			
<b>Total Score</b>	<b>30</b>	<b>29</b>	<b>23</b>	<b>21</b>			

Rating	Similarity	Remarks
10	Very Similar	
9		
8		
7	Has Many Similarities	
6		
5		
4	Has Some Similarities	
3		
2		
1		
0	Not Similar at All	

- 3, What has worked in the past, and importantly, why? And finally,
- 4, What has not worked, and importantly why not?

The sample comparison shows operations across the top, in a chronological order, starting with the Mexican American war, which took place in the mid-19th century. Next is the Mexican expedition of 1916. Although both took place before the integration of the air, space, or cyber domains, they were attractive because they both involved Mexican forces and the same terrain.

The next two conflicts involve China providing military support to our Adversaries, in one case Korea and the other Vietnam. These also took place after the integration of the air domain. By the time Vietnam occurred, the space domain was also integrated.

The next one is the Cuban missile crisis. Although neither the terrain nor adversaries are the same as our current situation, it was selected because it involves another superpower expanding militarily into our hemisphere.

The last two operations were appealing because they are ongoing missions, as of August 2022, occurring on the southern border. JTF-6, which began in 1989, is now JTF-North. Operation Lone Star is being conducted by the state of Texas and was referenced in one of the videos you watched in the scenario validation section of this module.

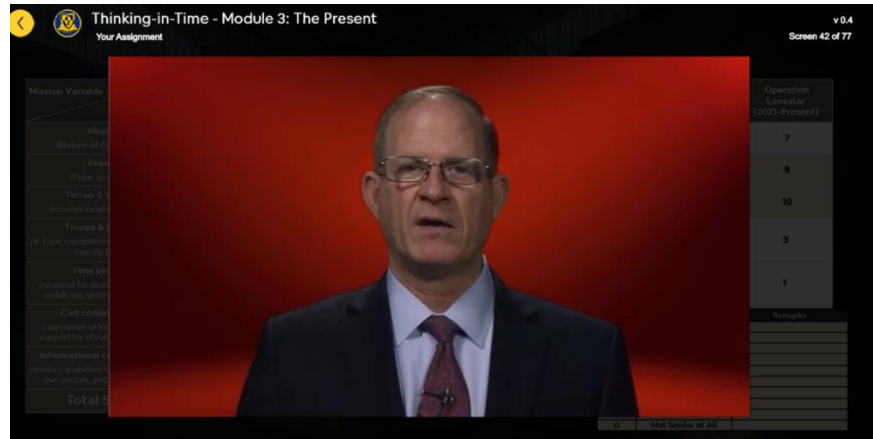
Move your mouse over the matrix to show the table to help you rate the discreet elements of the respective conflicts and variables. Ten shows the conflict and variable is very similar, and a zero is not similar at all.

Again, this is just a way to analyze similarities and differences of previous operations. As you see from the excerpt from A.T.P 1-20, military history does not produce solutions for problems or guarantee success. An approach with these goals leads to frustration and biased or inaccurate history. Rather, military history affords an understanding of the dynamics to shape the present and enables Soldiers the perspective of viewing current and future problems with ideas of how similar challenges were confronted in the past.

DRAFT

Thinking about our present scenario, you may recall that the Mexican cartels are using tunnels. You may determine that it would be useful conduct historical reconnaissance on how tunnels have been used and confronted in past military operations. We The U.S did gain some experience with tunnels in Korea and in Vietnam, but it may be a more useful example to look at tunnel usage in the Gaza strip and how both Israel and Egypt confronted them.

Watch this one-minute video by Dr. Richard Lacquement of the US Army War College (USAWC) about the utility and risk of using analogies.



This analogies matrix has ratings entered for the sample scenario being used in this module. The highest values in each row are shaded, indicating they are the most similar for that mission variable. The JTF-North column is the most similar column to the sample scenario. The terrain and weather mission variable are also the most similar since the Mexican American war and the Mexican expedition both take place in the same geographic region as the sample scenario. This is just a way to readily display the similarities and differences between the sample scenario and other events.

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Step 2: Sample Analogies Matrix (Historical Reconnaissance)

Mission Variable	Event	Mexican-American War (1846-48)	Mexican Expedition (1916)	Chinese support to N. Korea (1950-53)	Chinese support to N. Vietnam (1950-68)	Soviet support to Cuba (1962)	JTF-6/JTF-North (1989-Present)	Operation Lonestar (2021-Present)
Mission (Nature of Operations)		7	6	5	5	4	8	7
Enemy (Type, goals, will)		6	6	7	7	2	9	9
Terrain & Weather (includes location & climate)		10	10	6	4	0	10	10
Troops & Support (If, type, capabilities, and condition of friendly forces)		2	2	3	3	0	4	3
Time available (required for planning, preparing, mobilizing, setting the theater)		1	1	0	0	2	1	1
Civil considerations (disposition of local populace to support for US/allied operations)		2	2	1	1	0	3	3
Informational considerations (media capabilities to reach/influence own people, and other nations)		2	2	1	1	1	2	2
<b>Total Score</b>		<b>30</b>	<b>29</b>	<b>23</b>	<b>21</b>	<b>9</b>	<b>37</b>	<b>35</b>

The Army Design Methodology ATP 5-0.1 offers a useful Bottomline. *Analogies are an effective way to communicate concepts, especially complex ones. An analogy occurs when one situation side-by-side with another and there are similarities. Analogies may be history, or individual, or group experience. Quite often, these analogies are strong and are useful in illustrating a valid point. The fallacy of weak analogy is committed when the analogy used is not strong enough to support the conclusions drawn.*

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Your Assignment  
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Step 2: Sample Analogies Matrix (Historical Reconnaissance)

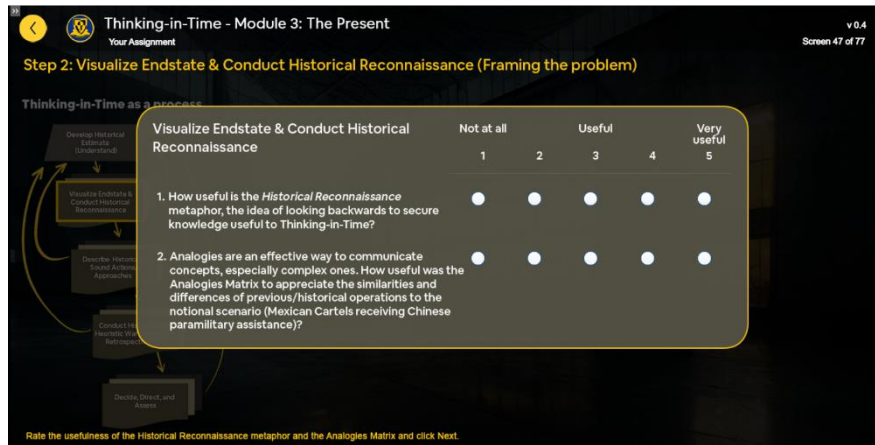
Mission Variable	Event	Mexican-American War (1846-48)	Mexican Expedition (1916)	Chinese support to N. Korea (1950-53)	Chinese support to N. Vietnam (1950-68)	Soviet support to Cuba (1962)	JTF-6/JTF-North (1989-Present)	Operation Lonestar (2021-Present)
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**Bottomline:**  
Analogies are an effective way to communicate concepts, especially complex ones. An analogy occurs when one situation side-by-side with another and there are similarities. Analogies may be history or individual or group experience. Quite often, these analogies are strong and are useful in illustrating a valid point. The fallacy of weak analogy is committed when the analogy used is not strong enough to support the conclusion(s) drawn.  
- ATP 5-01, Army Design Methodology, JUL 2015

Score	Similarity	Remarks
10	Very Similar	
9	Has Many Similarities	
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7	Has Many Similarities	
6		
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3		
2		
1		
0	Not Similar at All	



The next activity for Step 2 is for the student to rate the usefulness of the Historical Reconnaissance metaphor and the Analogies Matrix.

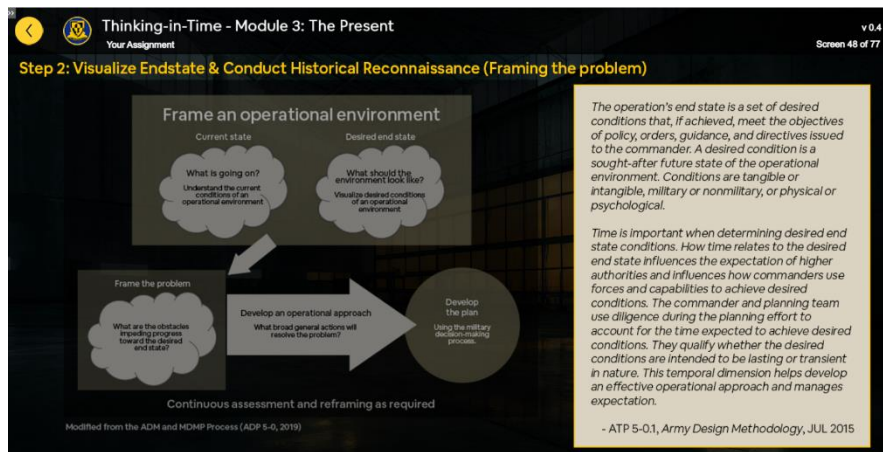


**Visualize Endstate:**

*“The operation’s end state is a set of desired conditions that, if achieved, meet the objectives of policy, orders, guidance, and directives issued to the commander.*

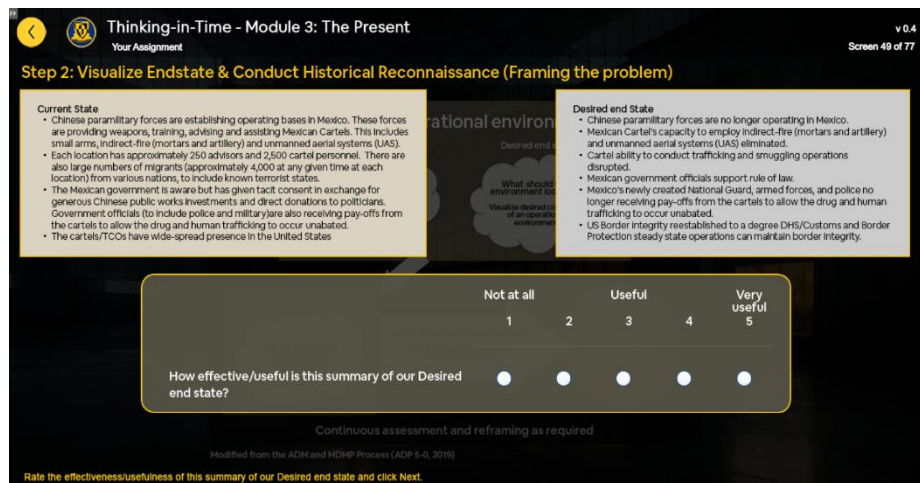
*Time is important when determining desired end state conditions. How time relates to the desired end state influences the*

*expectation of higher authorities and influences how commanders use forces and capabilities to achieve desired conditions. The commander and planning team use diligence during the planning effort to account for the time expected to achieve desired conditions. They qualify whether the desired conditions are intended to be lasting or transient in nature. This temporal dimension helps develop an effective operational approach and manages expectation”*

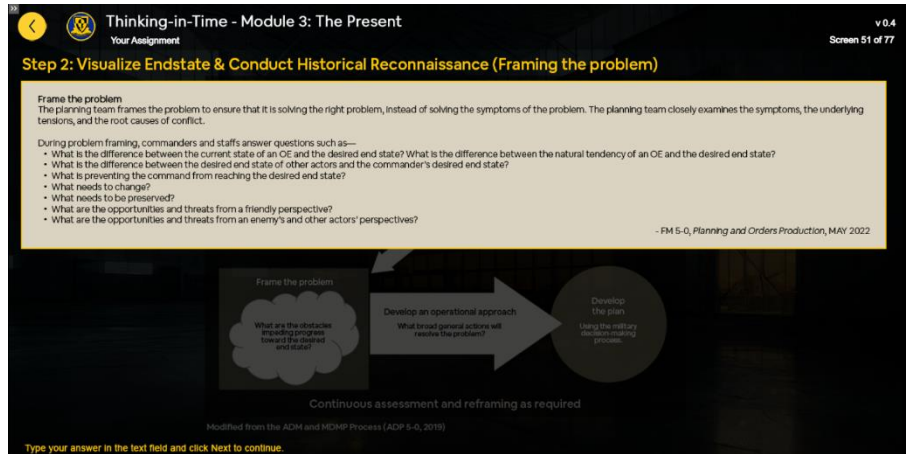


You may recall from module two that LTG Bolger and others, cited a mismatch between political and military objectives in Afghanistan contributing to our failure.

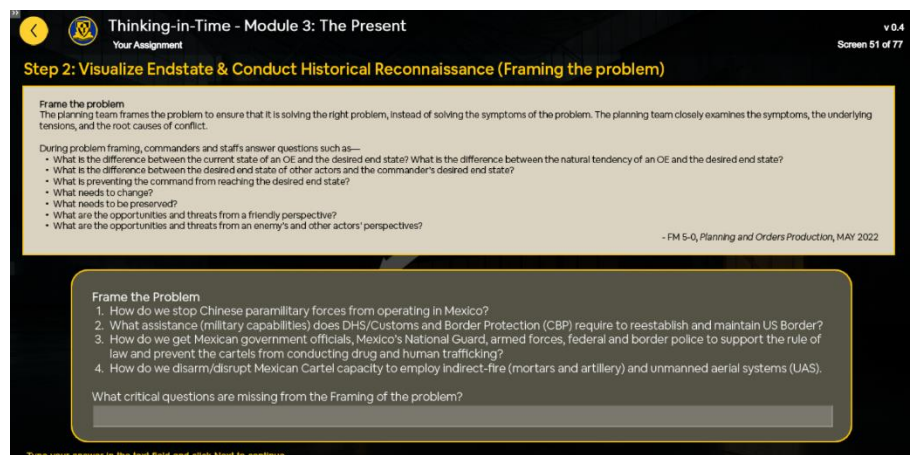
This is the current state, and desired end state, side by side. Rate the effectiveness or usefulness of this summary of our desired end state.



The planning team frames the problem to ensure that it is solving the right problem, instead of solving the symptoms of the problem. The planning team closely examined the symptoms, the underlying tensions, and the root causes of conflict. FM 5-0, *Planning and Orders Production*, has a list of questions to ask to help frame the problem.

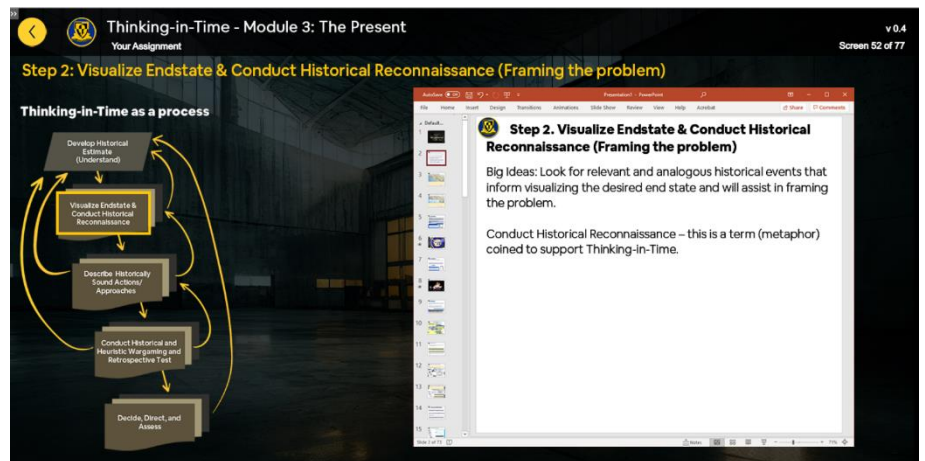


Below that, is the Frame the problem summary for this scenario. Looking at the problem frame and the questions, what critical questions are missing from that list of questions?



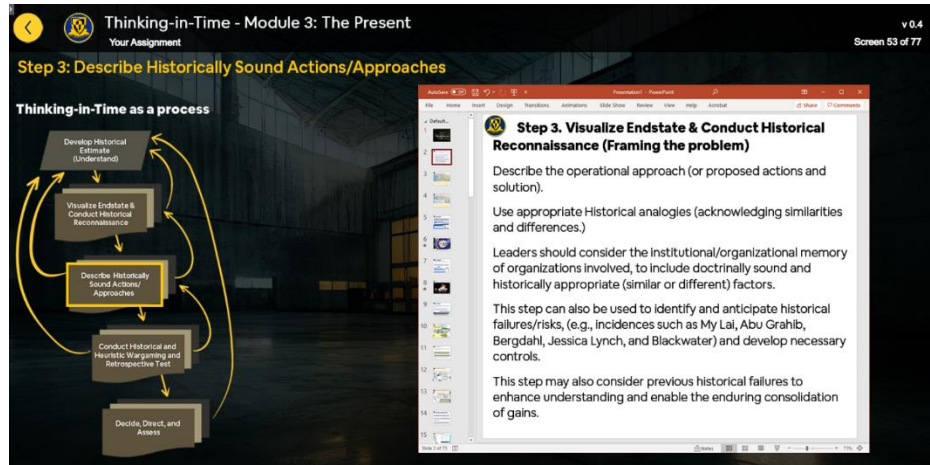
This concludes Step 2. The big ideas for this step include Looking for relevant and analogous historical events that inform visualizing the desired end state and will assist in framing the problem. Don't forget that "Conduct Historical Reconnaissance", is a term coined to support Thinking-in-Time.

"This concludes Step 2, visualize end state and conduct historical reconnaissance.



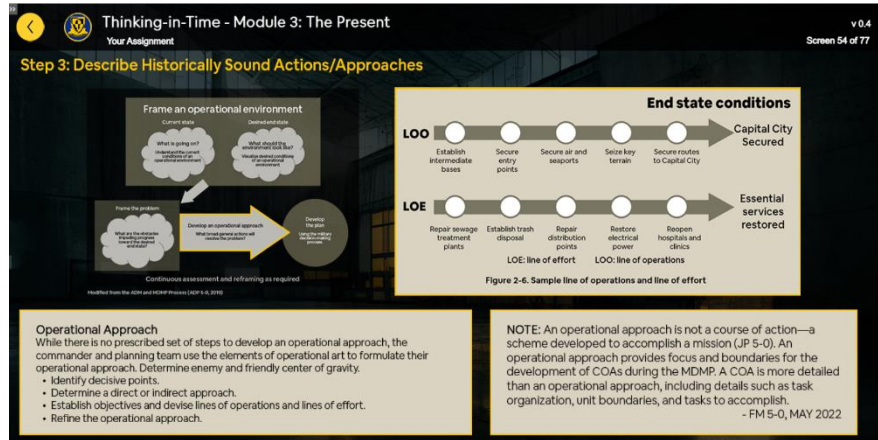
**(3) Step 3 - Describe Historically Sound Actions/Approaches**, would include describing the

operational approach (or proposed actions and solution). This can include the use of appropriate historical analogies (acknowledging similarities and differences). Leaders should consider the institutional/organizational memory of organizations involved, to include doctrinally sound and historically appropriate (similar or different) factors. This step can also be used to identify and anticipate historical failures/risks, (e.g., incidences such as My Lai, Abu Grahb, Bergdahl, Jessica Lynch, and Blackwater) and develop necessary controls. This step may also consider previous historical failures to enhance understanding and enable the enduring consolidation of gains.



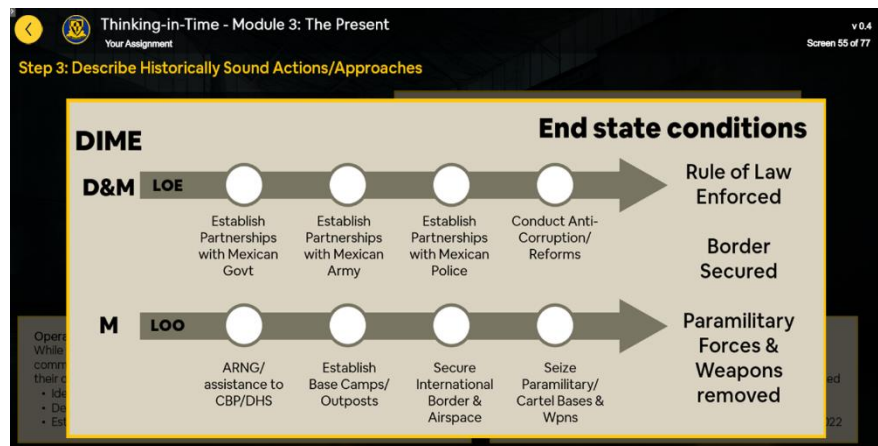
Operational Approach: *While there is no prescribed set of steps to develop an operational approach, the commander and planning team use the elements of operational art to formulate their operational approach. Determine enemy and friendly center of gravity.*

- Identify decisive points.
- Determine a direct or indirect approach.
- Establish objectives and devise lines of operations and lines of effort.
- Refine the operational approach.



Unfortunately, because of lesson time constraints, these elements cannot be fully examined. Given that an important function of the operational approach is that it provides focus and boundaries for the development of COA's during the MDMP, this makes Thinking-in-time even more vital to effectively practicing operational art.

The image depicts a simplified operational approach for the sample scenario using one line of effort and one line of operation. A description of the end state conditions are listed on the right.





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Step 3: Describe Historically Sound Actions/Approaches

**Frame an operational environment**  
Current state: "What is going on?"  
Desired state: "What do we want to see?"  
Problem: "What is the difference between the current state and the desired state?"  
Frame the problem: "What are the critical elements of the problem?"  
Develop an operational approach: "What actions are required to solve the problem?"  
Describe the plan: "How will we execute the plan?"  
Continuous assessment and refining as required

**DIME**  
D&M LOE: Establish Partnerships with Mexican Govt, Establish Partnerships with Mexican Army, Establish Partnerships with Mexican Police, Conduct Anti-Corruption/Reforms  
M LOO: ARNG/assistance to CBP/DHS, Establish Base Camps/Outposts, Secure International Border & Airspace, Seize Paramilitary/ Cartel Bases & Weapons

**End state conditions**  
Rule of Law Enforced  
Border Secured  
Paramilitary Forces & Weapons removed

**Operational Approach**  
While there is no prescribed set of steps to develop an operational approach, the commander and planning team use the elements of operational art to formulate their operational approach. Determine enemy and friendly center of gravity.  
- Identify decisive points.  
- Determine a direct or indirect approach.  
- Establish objectives and devise lines of operations and lines of effort.

**NOTE:** An operational approach is not a course of action—a scheme developed to accomplish a mission (JP 5-0). An operational approach provides focus and boundaries for the development of COAs during the MDMP. A COA is more detailed than an operational approach, including details such as task organization, unit boundaries, and tasks to accomplish.  
- FM 5-0, MAY 2022

Click Next to continue.

Now that the O.E and the problem have been framed, and an operational approach has been developed, take a minute to determine if another military operation or analogous situation, other than those presented in the analogies matrix, might be more useful to the ongoing planning.

The seven operations from the analogies matrix are displayed for your reference.

Enter a military operation or event you think might be more useful to the ongoing planning.

Thinking-in-Time - Module 3: The Present  
Your Assignment  
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Step 3: Describe Historically Sound Actions/Approaches

**Frame an operational environment**  
Current state: "What is going on?"  
Desired state: "What do we want to see?"  
Problem: "What is the difference between the current state and the desired state?"  
Frame the problem: "What are the critical elements of the problem?"  
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**End state conditions**  
Rule of Law Enforced  
Border Secured  
Paramilitary Forces & Weapons removed

Mexican-American War (1846-48)	Chinese Expedition (1916)	Chinese support to N. Korea (1950-53)	Chinese support to N. Vietnam (1950-68)	Soviet support to Cuba (1962)	JTF-6/JTF-North (1989-Present)	Operation LoneStar (2021-Present)
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Does the operational approach and seven previously considered analogies suggest another military operation (analogous situation) may be more useful to the ongoing planning?

Type your answer in the text field and click Next to continue.

This is the first of three COA's. As mentioned earlier, there is no higher headquarters order, nor has a thorough mission analysis been conducted. These COA's are simplified, in the interest of time.

This is COA 1 or JTF-SFA. In this COA the JTF conducts force assistance to train, advise, and assist the Mexican armed forces, national guard, and police to enable counterdrug and counter transnational organized crime operations. The operational area has been divided with a boundary down the middle.

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Your Assignment  
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Step 3: COA 1 - "Security Assistance" JTF-SFA (Corps HQs, 2 Division HQs with 1 x IBCT & 1 x SFAB per Division)

**Mission Statement:** C/O JTF-SFA conducts security force assistance (train, advise, and assist) with Mexican armed forces, national guard, and police to enable counterdrug/counter transnational organized crime operations. C/W Mexican forces, BPT destroy paramilitary forces, seizes cartel weapons in order to protect the homeland.

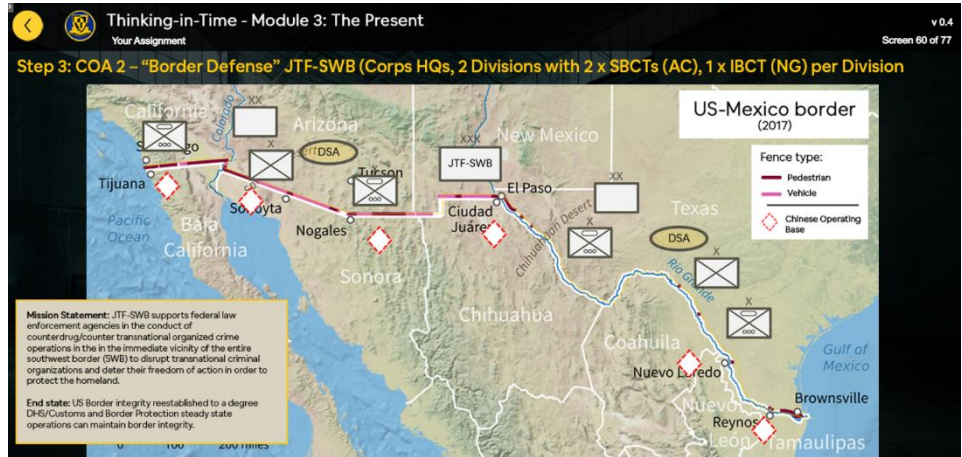
**End state:** Chinese paramilitary forces no longer operating in Mexico. Cartel's capacity to employ indirect fire (mortars and artillery) and unmanned aerial systems (UAS) eliminated. US Border integrity reestablished to a degree DHS/Customs and Border Protection steady state operations can maintain border integrity.

**NOTE:** In these courses of action that follow, you will not see special operations, or soft forces. A separate planning team is developing concepts for employment of soft forces and a joint special operations task force or a JSOTF option.

You see the JTF Security Force Assistance headquarters at the intersection of that divisional boundary. There is Division headquarters assigned to AO West and AO East. Both divisions have been allocated the same number and types of units: One infantry brigade combat team, and one security force assistance brigade in each AO. Each division has its normal complement of enablers, a combat aviation brigade, division artillery, sustainment brigade, engineers, etc. After an unspecified amount of time the, JTF- SFA in conjunction with Mexican forces, needs to be prepared to destroy paramilitary forces and seize cartel weapons in order to protect the United States.

What historical failures or risks are inherent in this COA? What do previous or historical SFA missions, for example in Iraq and Afghanistan, suggest about our ability to achieve enduring consolidation of gains.

This is COA 2, JTF-SWB. In this COA the JTF supports federal law enforcement agencies in the conduct of counterdrug and counter transnational organized crime operations in the immediate vicinity of the entire southwest border (SWB) to disrupt transnational criminal organizations and deter their freedom of action in order to protect the homeland.

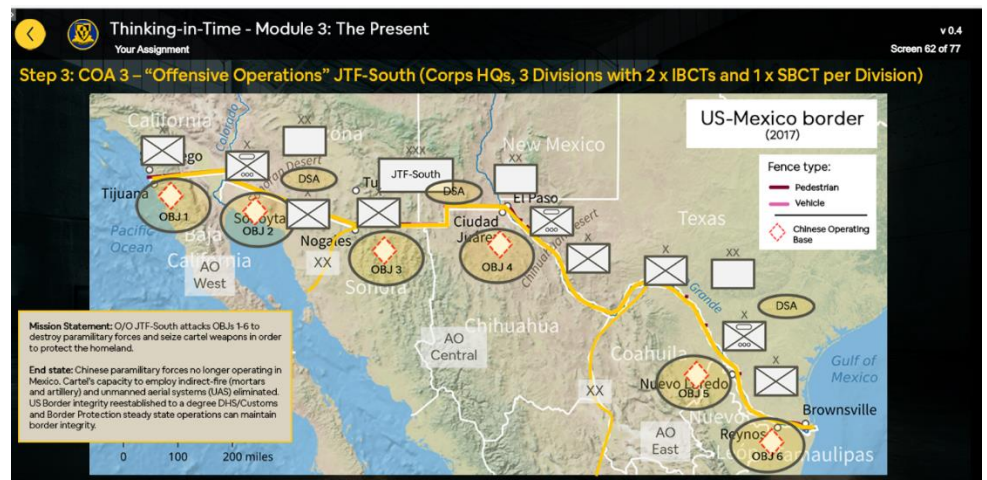


For COA 2 the JTF-SWB headquarters is in the vicinity of El Paso, Texas. There is one Division in support of federal law enforcement agencies East of El Paso. The other Division is supporting federal law enforcement agencies to the west. Both divisions have been allocated the same number and types of units: One Army national guard, infantry brigade combat team, and two Stryker brigade combat teams per division. Although not depicted, each division has its normal complement of enablers, a combat aviation brigade, division artillery, sustainment brigade, engineers, etc.

What historical failures or risks are inherent in this C.O.A?

This is COA 3, or JTF-South. In this COA, JTF-South is ordered to attack Objectives 1 through 6, to destroy paramilitary forces and seize cartel weapons in order to protect the United States.

For COA 3, the JTF-South headquarters is in the vicinity of the Arizona - New Mexico border. Division headquarters are assigned to AO West, AO Central, and AO East. All three divisions are allocated the same number and types of units: two infantry brigade combat teams and one Stryker brigade combat team in each of the three AO's. Although not





depicted, each division has the normal complement of enablers: a combat aviation brigade, division artillery, sustainment brigade, engineers, etc.

What historical failures or risks are inherent in this C.O.A?

This completes step three, *Describe Historically Sound Actions and Approaches*, of the five-step Thinking-in-Time process. Please Rate this step's effectiveness and the operational approach as a reasonable "school solution" to the notional scenario.

Thinking-in-Time as a process

Describe Historically Sound Actions/Approaches	Not at all		Useful		Very useful
	1	2	3	4	5
1. How effectively does this step (Describe Historically Sound Actions/Approaches) of the five-step Thinking-in-Time process complements existing doctrinal methodologies and processes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Is the operational approach a reasonable "school solution" to the notional scenario (Mexican Cartels receiving Chinese paramilitary assistance)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The final part of this step is to share which COA you believe is most likely to fail and which is most likely to succeed.

All COAs must be feasible, acceptable, suitable, distinguishable, and complete.

	COA 1	COA 2	COA 3
1. Based on a historical estimate, which COA is most likely to fail?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Based on a historical estimate, which COA is most likely to succeed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(4) **Step 4 - Conduct Historical and Heuristic Wargaming and Retrospective Test**, is aimed at

looking for all events that could hinder the course of actions (COAs) operational approach, or solution (including potentially faulty heuristics, as well as historical patterns and trends of enemy, friendly, civilian, weather factors, etc.). This step may require validation/revision of assumptions and planning factors from previous steps and includes actively look for fallacies, biases, pitfalls, and blind spots. This step can involve looking for unknown unknowns, unintended consequences, and

Thinking-in-Time as a process

**Step 4. Conduct Historical and Heuristic Wargaming & Retrospective Test**

Look for all events that could hinder the COA(s), operational approach, or solution (including historical, heuristic, enemy, friendly, civilian, weather, etc.). Validate/ revise assumptions and planning factors.

Look for fallacies, biases, pitfalls and blind spots. Look for unknown unknowns and unintended consequences. Consider counterfactuals.

Consider evaluating approach from multi-disciplinary perspectives (theologian, economist, statistician/gambler, architect, higher headquarters to NCA/Congress, allies, competitors, enemy, etc.).

Retrospectively examine the end state from several timeframes. Near-term/In the news media (The CNN/Washington Post Test), Mid-term/peer review (CALL, Military Journals), and Long-term (History books, grandchildren) to confirm the feasibility, acceptability, suitability of the approach.



may involve applying a counterfactual technique. During this step it may be useful to consider evaluating the approach from multi-disciplinary perspectives (theologian, economist, statistician/gambler, architect, higher headquarters to National Command Authorities/Congress, allies, competitors, enemy, etc.). Finally, this step retrospectively examines the end state from several timeframes in order to consider how the actions/approach will be viewed in light of history/hindsight. The near-term vantage is how the news media (e.g., the CNN/Washington Post) portrays the actions, the mid-term vantage would be how peer reviewed publications (e.g., the Center for Army Lessons Learned or Military Journals) would regard the actions, and then how the long-term (e.g., history) will judge the actions (or inaction). All of the previous activities in this step are to confirm the feasibility, acceptability, and suitability of the approach.

Select which COA from the three multi-disciplinary perspectives, best represents each question.

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**Step 4: Conduct Historical and Heuristic Wargaming & Retrospective Test**

Consider evaluating the operational approach/COAs from multi-disciplinary perspectives:

	COA 1	COA 2	COA 3
1. Which COA would a theologian recommend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Which COA would an economist recommend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Which COA would the Mexican government recommend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Retrospective examination of the COAs from several timeframes.

4. Which COA would look best in the near-term/in the news media (The CNN/Washington Post Test)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Which COA would look best in the Mid-term/peer review (CALL, Military Journals)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Which COA would look best in the Long-term (History books, your grandchildren)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Select which COA, from the three multi-disciplinary perspectives, best represents each question. Click Next when finished.

Rate the effectiveness of the retrospective test and the multi-disciplinary perspectives test.

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**Step 4: Conduct Historical and Heuristic Wargaming & Retrospective Test**

Thinking-in-Time as a process

Develop Historical Estimate  
Visualize Evidence & Conduct Historical Reconnaissance  
Describe Historically Shared Actions/Approaches  
Conduct Historical and Heuristic Wargaming and Retrospective Test  
Decide, Direct, and Assess

Conduct Historical and Heuristic Wargaming & Retrospective Test

	Not at all	Useful	Very useful		
	1	2	3	4	5
1. How effectively does the multi-disciplinary perspectives test enhance/improve the application of existing doctrinal methodologies and processes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How effectively does the retrospective test enhance/improve the application of existing doctrinal methodologies and processes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rate the effectiveness/usefulness of this summary to your understanding of the Current OE and click Next.

**(5) Step 5 - Decide, Direct, and Assess.** This is the last step in the thinking in time process. In this step you make or recommend decisions, and direct actions based on the updated historical estimate and situational understanding maintained by continuous assessment. Use historical events, or analogies, to maintain shared understanding and to describe and direct future actions when appropriate.

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**Step 5: Decide, Direct, and Assess**

Thinking-in-Time as a process

Develop Historical Estimate (Understand)  
Visualize Evidence & Conduct Historical Reconnaissance  
Describe Historically Shared Actions/Approaches  
Conduct Historical and Heuristic Wargaming and Retrospective Test  
Decide, Direct, and Assess

**Step 5. Decide, Direct, and Assess**

Make (recommend) decisions and direct action based on the updated historical estimate and situational understanding maintained by continuous assessment.

Use historical estimate, events, analogies, to direct (plans, orders, etc.) to maintain shared understanding and to describe and direct future actions when appropriate.

Do I have enough info to study the problem to make a decision?

1. Ability to reassess assumptions
2. Critically important to communicate, lots of transition required, two levels down and two levels above

Allows us to relate/explain to subordinates, and to tell stories.

The decision matrix is used to compare, and thoroughly, and logically evaluate COA's. However, the process may be based on highly subjective judgments that can change dramatically during the course of evaluation. In the sample decision matrix, weights reflect the relative importance of each criterion as initially estimated by the chief of staff or XO during mission analysis and adjusted or approved by the commander.

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**Step 5: Decide, Direct, and Assess**

Weight <sup>1</sup>	1	2	1	1	2	
Criteria <sup>2</sup>						
Course of Action (COA)	Simplicity	Maneuver	Fires	Civil Control	Mass	Total
COA X <sup>3</sup>	2	2 (4)	2	1	1 (2)	8 (11)
COA Y <sup>2</sup>	1	1 (2)	1	2	2 (4)	7 (10)

Table 5-9. Sample Decision Matrix

<sup>1</sup> The chief of staff or executive officer may emphasize one or more criteria by assigning weights to them based on a determination of their relative importance. Higher weights correspond to emphasized or more important criteria.  
<sup>2</sup> Criteria are those approved by the commander during the mission analysis brief.  
<sup>3</sup> COAs selected for war gaming have rankings assigned with regards to each criteria based on relative advantages and disadvantages of each COA. For example, when compared for relative simplicity, COA Y is simpler than COA X and is therefore ranked 1, with COA X ranked 2.  
<sup>4</sup> For this example a lower score is the better COA.

Click Next to continue.

Now think for a moment about the Historical Estimate. Under time-constrained conditions, commanders and staffs use as much of the previously analyzed information and as many of the previously created products as possible. The importance of running estimates increases as time decreases.

Type a brief answer to both questions.

First, if "History" were one of the evaluation criteria, defined as most likely to succeed based on the historical estimate, which COA would respected historians recommend?

Second, based on all the techniques, the multi-disciplinary test, the retrospective test, etc. which COA do you recommend?

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**Step 5: Decide, Direct, and Assess**

Select which COA best represents each question. Click Next when finished.

All COAs must be feasible, acceptable, suitable, distinguishable, and complete.

	COA 1	COA 2	COA 3
1. If "History" were one of the evaluation criteria (defined as most likely to succeed based on the historical estimate) which COA would respected historians recommend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Based on all the techniques (multi-disciplinary test, retrospective test, etc.) which COA do you recommend?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Communicating is a vital part of Thinking-in-Time. What historical operation or analogy would you use to convey your chosen COA? These are three examples for COA's. Type your recommended COA and an analogous operation, different than the examples, that could be used to illustrate it.

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**Step 5: Decide, Direct, and Assess**

Click a COA to continue.

Communicating is a vital part of Thinking-in-Time. What historical operation/analogy could you use to convey your chosen COA?

These are three more examples and analogies for COAs:

- COA 1 - "Security Assistance" - Working with the South Koreans to establish the 38th Parallel DMZ
- COA 2 - "Border Defense" - Maginot Line (Built between 1929-1938)
- COA 3 - "Offensive Operations" - Operation Just Cause (Panama)

Select a COA:

1. COA 1 - "Security Assistance"  
 2. COA 2 - "Border Defense"  
 3. COA 3 - "Offensive Operations"

Provide an analogy for the COA you selected (different from the examples provided):

This concludes Step 5.



Rate how effectively the application of this step: Decide, Direct, and Assess, complements the doctrinal application of existing doctrinal methodologies and processes.

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Step 5: Decide, Direct, and Assess

Thinking-in-Time as a process

Decide, Direct, and Assess

Not at all	Useful	Vary Useful		
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1. How effectively does the application of this step (Decide, Direct, and Assess) complement the application of existing doctrinal methodologies and processes?

Rate the effectiveness/usefulness of this summary to your understanding of the Current OE and click Next.

After a supplemental review of the notional aspect of this scenario, the Chinese paramilitary assistance and provision of weapons to the Mexican Cartels, it was determined that this is an invalid scenario for training and educational purposes.

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Summary: The Present

US-Mexico border (2017)

San Diego, Tijuana, So.oyta, Ciudad Juarez, El Paso, Nuevo Laredo, Brownsville, Reynosa, Matamoros

Important Note:  
**SCENARIO INVALID**

Fence type:  
Pedestrian  
Vehicle  
Chinese Operating Base

While the readings and information from ATP 7-100.3, the news video clips, and intelligence from the National Drug Threat Assessment produced by the Drug Enforcement Agency, were all real-world and open source, and even though the 2022 National Defense Strategy fact sheet describes the People’s Republic of China as “our most consequential strategic competitor and the pacing challenge for the Department”, the notional aspect of the scenario could be misconstrued as maligning the intentions of that competitor.

Furthermore, there are historical analogies that suggest the notional aspect would not be in keeping with the Chinese desire to “win without fighting.” Arguably, the Cuban Missile Crisis in 1962, and to a lesser degree Operation Urgent Fury from 1983 in Grenada, suggest that foreign forces in our hemisphere could lead to a significant U.S response.

Finally, as Derek Maltz, the DEA's former chief of special operations concluded, “China's involvement in the fentanyl trafficking must

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Summary: The Present

US-Mexico border (2017)

San Diego, Tijuana, Tucson, Nuevo Laredo, Brownsville, Reynosa, Matamoros

Important Note:  
**SCENARIO INVALID**

“China's involvement in the fentanyl trafficking must be viewed as part of its larger national strategy to unseat America as the world's number one economic and military superpower...China has pushed their unrestricted warfare, they're using fentanyl to kill our future generation. They're using the cartels as a proxy to destroy and destabilize our country, and it's working very well.”  
- Derek Maltz, DEA's Former Chief of Special Operations

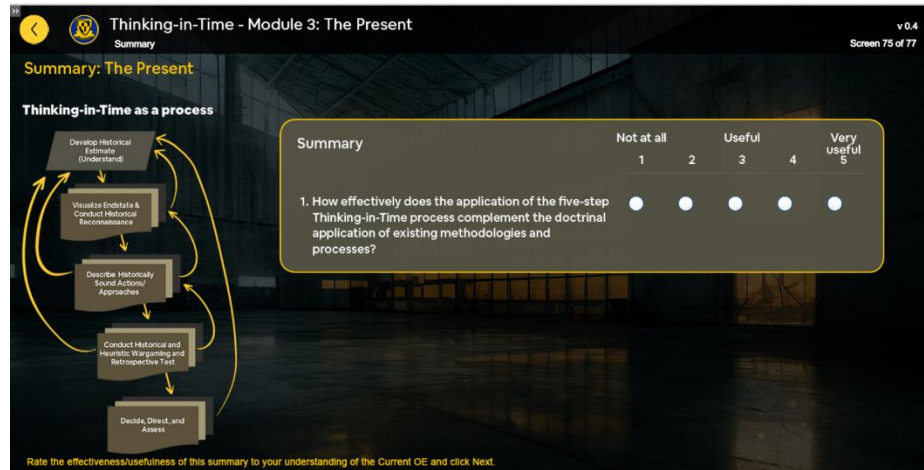
\*Retrieved from <https://jasthnews.com/government/security/nwdformer-chief-special-operations-dea-says-china-usino-fentanyl-kill-american> on 10 JAN 2023



be viewed as part of its larger national strategy to unseat America as the world's number one economic and military superpower. China has pushed their unrestricted warfare; they're using fentanyl to kill our future generation. They're using the cartels as a proxy to destroy and destabilize our country, and it's working very well."

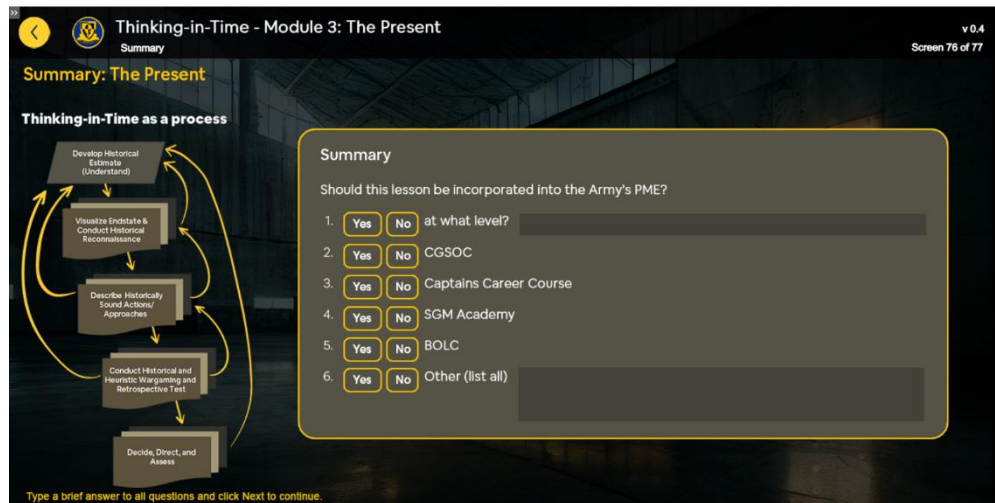
Thus, for these reasons, the Chinese paramilitary assistance and provision of weapons to the Mexican Cartels scenario fails Dr. Dowse's consistency criterion, such as, the logics in a scenario must not introduce contradiction, and therefore the scenario should be considered invalid and not used at this time.

Evaluate, how effectively you believe the five-step Thinking-in-Time process, complements the existing doctrinal methodologies and processes.



Should this lesson be incorporated into the Army's PME?

If yes, at what level?



## f. Module Summary.

In this module you:

- Appraised the plausibility of the notional Chinese Paramilitary scenario.
- Used the five key criteria for validating a scenario to evaluate the notional scenario.
- Considered the effects of biases on the validation process.
- Evaluated the five-step Thinking-in-Time process

The screenshot shows a presentation slide with the following content:

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**Summary**

**Thinking-in-Time as a process**

The process is depicted as a vertical flowchart with five steps, each in a box, connected by downward arrows. Curved arrows on the left side indicate feedback loops from later steps back to earlier ones:

- 1. Develop Historical Estimate (Understand)
- 2. Visualize Endstate & Conduct Historical Reconnaissance
- 3. Describe Historically Sound Actions/ Approaches
- 4. Conduct Historical and Heuristic Wargaming and Retrospective Test
- 5. Decide, Direct, and Assess

**In this module you:**

- Appraised the validity of the Chinese Paramilitary scenario.
- Used the five key criteria for validating a scenario to evaluate the notional scenario.
- Evaluated the five-step thinking-in-time process.

**Appendix A: Possible Discussion Questions**

1. How useful is Dr. Andrew Dowse's "Scenario Planning Methodology for Future Conflict" and his assertion that the validity of a scenario depends on five key criteria (Plausibility, Consistency, Relevance, Challenge, and Differentiation)?
2. How important is it for an Army officer to have a thorough understanding of doctrine?
3. Does the five-step Thinking-in-Time process complement the doctrinal application of existing methodologies and processes?
4. Should this lesson be incorporated into the Army's PME?
5. What are the implications of the China's historically longer view of time than the United States?
6. Can the development of a Historical Estimate better inform our overall understanding of the OE?
7. What do you think about the analogies video by Dr. Richard Lacquement of the US Army War College (USAWC)?
8. Is the Historical Reconnaissance metaphor useful?
9. COA 1/JTF-SFA conducts force assistance to train, advise, and assist the Mexican armed forces, national guard, and police to enable counterdrug and counter transnational organized crime operations. What historical failures or risks are inherent in this COA?
10. What do previous or historical SFA missions, for example in Iraq and Afghanistan, suggest about our ability to achieve enduring consolidation of gains.
11. COA 2 /JTF-SWB supports federal law enforcement agencies in the conduct of counterdrug and counter transnational organized crime operations in the immediate vicinity of the entire southwest border (SWB) to disrupt transnational criminal organizations and deter their freedom of action in order to protect the homeland. What historical failures or risks are inherent in this C.O.A?
12. For COA 3/JTF-South is ordered to attack Objectives 1 through 6, to destroy paramilitary forces and seize cartel weapons in order to protect the United States. What historical failures or risks are inherent in this C.O.A?
13. How useful is it to examine COAs from the multi-disciplinary perspectives?
14. How useful is it to examine COAs using the retrospective test?
15. If "History" were one of the evaluation criteria, defined as most likely to succeed based on the historical estimate, which COA would respected historians recommend?
16. The DEA's former chief of special operations concluded, "China's involvement in the fentanyl trafficking must be viewed as part of its larger national strategy to unseat America as the world's number one economic and military superpower. China has pushed their unrestricted warfare; they're using fentanyl to kill our future generation. They're using the cartels as a proxy to destroy and destabilize our country, and it's working very well." Do you agree?
17. Should this lesson be incorporated into the Army's PME? If yes, at what level?



DRAFT

- 18.** What dimension of time (past, present, and future) is the most important?
- 19.** Which level of warfare (strategic, operational, or tactical) is most important in this China-Mexico Cartel Scenario?
- 20.** How do the Characteristics of Time (Sequence, Synchronization, Tempo, Timing, Opportunity, and Duration) differ for the US, Mexico, and China?
- 21.** What is the most important concept to take away from this module?
- 22.** How can you apply what you've learned in the remainder of this course?
- 23.** How can you apply what you've learned when you get to your next unit?

Appendix B: Thinking-in-Time Framework

