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User's Guide for the Strategic Thinking Mindset Test (STMT)

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Consortium Research Fellows Program,
Consortium of Universities of the Washington Metropolitan Area

June 2017

**United States Army Research Institute
for the Behavioral and Social Sciences**

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User's Guide for the Strategic Thinking Mindset Test

Overview

Talent management and career-long leader development are needed to ensure the Army has the necessary strategic thinking capabilities to operate successfully in the strategic environment. These processes require scientific assessment, coaching/mentoring, and self-awareness and self-development. Without early awareness and intentional development of a strategic thinking mindset, Army leaders face a significant challenge in adopting this mindset later. Having succeeded at tactical and operational levels that prioritize a different mindset, this shift in perspective can be difficult.

Assessment tools are needed to help Army leaders develop early self-awareness at the Company level of how their thinking habits align with the kinds of thinking required of the Army's strategic thinkers. These tools are also needed to help the Army identify and nurture the development of leaders with a natural mindset for strategic thinking, while also helping develop the mindset in those with different strengths. This work is closely related to the findings and recommendations of ARI Research Report 1995—Enhancing the Strategic Capability of the Army: An Investigation of Strategic Thinking Tasks, Skills, and Development (Sackett, Karrasch, Weyhrauch, & Goldman, 2016) and ARI Technical Report 2013-01—Exploring Strategic Thinking: Insights to Assess, Develop, and Retain Army Strategic Thinkers (Wolters, Grome, & Hinds, 2013).

This user's guide consists of materials for instructors to use in helping subordinates develop self-awareness of how their approach to complex and ambiguous problem-solving aligns with the demands of strategic thinking. The scenario-based assessment features complex and ambiguous problem scenarios from real events in the experience of Army leaders. The situational judgment format, in which a range of response options are considered and either endorsed and rejected, also features real options described by Army leaders for those scenarios. This guide includes:

- A scenario-based assessment tool that Company-grade officers can use to develop self-awareness and consider ways to apply different thinking habits to ambiguous problems (Appendix A);
- Forms for scoring and calculating test scores (Appendix B);
- A hand-out to help test-takers understand the different characteristics of the strategic thinking mindset (Appendix C); and
- A guide for a facilitated group or one-on-one discussion of the test items and results (Appendix D).

The Strategic Thinking Mindset Test (STMT) was designed to use real-life scenarios as a base for assessing an Army leader's developing mindset for strategic thinking through the way he or she thinks about ambiguous problems at the Company level.

The strategic thinking mindset concept was developed after a thorough examination of both the theory and practice of strategic thinking, both in an Army context and in the broader domain of organizational management. The diverse body of literature describing the characteristics of strategic thinking (or strategic thinkers) features nine common themes:

- Systems and synthesis—gaining new awareness by combining parts to perceive a whole with unique properties;
- Creativity—creation of something new, e.g., a new process, technique, idea, or narrative about a problem;
- Directionality—dedicated focus on seeking a desired future condition, end-state, or vision;
- Criticality—challenging and questioning ideas or assumptions, as a means of affirming or disconfirming their validity, explicitly acknowledging and evaluating ideas on their merits;
- Awareness of time—consideration of how an issue is situated in past events, the present context, and anticipated or potential future scenarios;
- Adaptability and opportunism—changing one’s approach or creating a new and better approach when key conditions change or are revealed to be different than was thought;
- Breadth and inclusion—openness to and equitable consideration of many diverse viewpoints, comprehensively searching for knowledge that may have some bearing on a problem;
- Self-awareness and self-control—willingness and ability to maintain self-awareness, not only of weaknesses, but also basic assumptions, understanding how one’s thinking is limited and intentionally counteracting those limitations; and
- Action learning—continuously developing concepts, implementing them, studying their impact, and using the results to learn and improve understanding.

These themes provide a cross-disciplinary foundation for understanding what strategic thinking entails. In developing the strategic thinking mindset concept, these common themes provided a lens through which to consider which characteristics of a developing leader’s mindset

are conducive for the intellectual challenges of strategic thinking. Three characteristics are the most fundamental and worthy of focus in early leader development of strategic thinking:

- Intellectual flexibility—willingness and proclivity to adjust one’s understanding, opinions, or approach when conditions change or new information is presented;
- Intellectual inclusiveness—welcoming of information and opinion from a broad range of sources (individuals, groups, disciplines of study, or other relevant sources); and
- Intellectual humility—comfort level with being wrong or having an incomplete understanding, accompanied by the tendency to check oneself, examining issues as if one’s understanding is wrong in some way.

The common themes and characteristics of the strategic thinking mindset are discussed in greater detail in Technical Report 1361: Development and Preliminary Validation of the Strategic Thinking Mindset Test (STMT) (Weyhrauch, 2107).

Administering the Test

It is strongly recommended that the administrator not discuss the nature of the test before it is taken. If the test-takers know that the test is meant to be related to strategic thinking and/or flexibility, humility, and inclusiveness, they will likely alter their responses to some degree. As the test is intended as an exercise in honest self-awareness and self-reflection, this pre-knowledge would make the test much less useful in that regard. In the test booklet, each item (both scenario and response options) also comes with an open box for notes. Test-takers should be encouraged to take notes to document their thoughts for each scenario to help facilitate the discussion of the scenarios later.

The test is best administered in one setting, but could also be distributed overnight and returned the next day for scoring and discussion. Test-takers may be allowed to score their own tests. The scoring instructions, scoring key, and scoring sheet should all be provided to the test-takers after they have responded to all of the items. No more than a few days should elapse between the test-taker completing the test and the discussion of the results. As time passes, test-takers will lose their ability to reflect on their thinking as they chose among the response options for each scenario. This reflection is critical to the value of the test for self-awareness and development.

Scoring Instructions

Scores for the STMT are calculated only on the basis of 12 of the 21 test item scenarios. The empirical results described in the ARI Technical Report 1361 (Weyhrauch, 2017) indicated that the best measurement of the construct uses 12 items. The remaining 9 items were retained in the product for use as stimuli in group discussion. Test length with only the 12 scored items would be approximately 15 minutes. If only the test scores are of interest, for example, in

comparing two groups or evaluating the impact of an intervention, the 12-item version would suffice. However, due to the additional benefit in the range and quality of discussion and increased self-awareness, having participants complete all 21 items is recommended, with scores still calculated only on the 12 items.

Each test item is scored based on the combination of two responses:

- What option would you **most** likely choose? (i.e. endorse)
- Which option would you **least** likely choose? (i.e., reject)

The combination of these responses indicates whether the test-taker is both endorsing and rejecting the responses that do and do not embody a strategic thinking mindset characteristic, respectively. This system produces scores for each scenario that range from -2 (indicating opposition to the strategic mindset characteristic) to $+2$ (indicating alignment with a strategic thinking mindset characteristic). Using the item key provided in Appendix B, a score must be identified for each item. These scores are then added together to obtain the three characteristic scores and the overall score.

Discussing Test Results

The administrator of the test should plan on conducting a test results discussion session. This session should be used to encourage self-reflection and self-awareness. It is important for the test results to be combined with a deep and personal consideration of how the three strategic thinking mindset characteristics are relevant in the kinds of complex and ambiguous problems the test-taker has faced or will likely face. No matter the functional area or level of decision-making authority of the group, the primary goal of the discussion is to get individuals thinking about how to incorporate and practice a mindset of intellectual flexibility, intellectual humility, and intellectual inclusiveness in their day-to-day activities. A handout explaining the nature of these characteristics is provided in Appendix C. A list of questions and topics to help the administrator lead discussion of the test results is provided in Appendix D.

References

- Sackett, A. S., Karrasch, A. I., Weyhrauch, W. S., & Goldman, E. F. (2016). Enhancing the strategic capability of the Army: An investigation of strategic thinking tasks, skills, and development (Research Report 1995). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. AD1006147.
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- Wolters, H. M. K., Grome, A. P., & Hinds, R. M. (Eds.). (2013). Exploring strategic thinking: Insights to assess, develop, and retain Army strategic thinkers (Research Product 2013-1). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. ADA577290.

Appendix A

Test Booklet

Begin printing the booklet starting with the next page and ending with page 28.

INSTRUCTIONS

On the following pages you will find a series of questions designed to measure your behavioral tendencies in response to ambiguous problems.

This is not a test of knowledge or intelligence, but rather an initial assessment from which you can gain self-awareness and directions for self-reflection and growth in your career-long development of judgment.

Each question includes a scenario and four response options. These options are not a comprehensive list of possible courses of action. They are designed to evoke information about how you respond to ambiguous problems.

For each scenario you will be asked to indicate which options you would be most likely to *endorse* and to *reject*. To facilitate group discussion and encourage personal reflection, a box is included below each scenario for you to document your perception of the scenario and provide rationale and qualification of your choices.

In the boxes next to “Most Likely” and “Least Likely,” please write the letter corresponding to the option that best reflects what you would and would not do.

Scenario 1

Newly promoted CPT Stevens has just begun a new assignment as a General Support Officer (GSO), tasked with sustaining the Brigade with supplies, such as food, ammunition, and fuel. The Brigade was initiating closure of a battle space, including 15 forward operating bases (FOB). CPT Stevens needed to create a plan for future sustainment operations. A problem arose when reports from several of the FOBs did not provide clear responses about their current stock of food, while still regularly sending new requests for food. CPT Stevens became confused and frustrated at how this prevented his ability to plan ahead for future sustainment.

If you were in CPT Stevens' position, and given the following options, what would you personally most likely and least likely do?

- A. Withhold all new food requests to those FOBs until a clear response has been given.
- B. Make plans using an estimate of the food stocks at each FOB based on what is on hand at the other FOBs.
- C. Provide the Brigade XO with a list of the FOBs that are hoarding their food stocks.
- D. Continue to request revised reports from each until you get a clear picture of what is on hand at each.

Most Likely

☐

Least Likely

☐

Notes

Scenario 2

Two platoons responded to intelligence that a high value target had bedded down in a nearby village. LT Smith led the effort to search the target house and surrounding area. LT Jones led the outer cordon enclosing the village. A local national opened fire on the outer cordon and was killed. At the target house with the local police, the villagers became upset and gathered aggressively. The local police wanted to leave without searching the houses. However, LT Smith needed the local police to enter the target house first and assist due to the rules of engagement.

If you were in LT Smith's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Maintain the inner cordon, but wait to enter the house until you can disperse the crowd by having the interpreter explain the situation.
- B. Focus on the local police leader and challenge him to set an example of courage for his men and lead the entrance into the target house.
- C. Contact your Company commander and ask him/her to communicate with the local police commander to order his men to enter the house.
- D. Call off the search if the police refuse to participate to avoid breaking rules of engagement.

Most Likely

☐

Least Likely

☐

Notes

Scenario 3

LT Nunez was an observer/coach (OC) tasked to oversee and provide feedback on a multinational, virtual exercise. Many tiers of systems participated, each with various sensors and weapon systems being used in the scenarios. During the scenarios, LT Nunez witnessed a glitch in the scenario, in which digital clutter appeared on the display screens whenever an incoming target was destroyed. The operators' responded by temporarily switching off their radar and turning it back on to remove the visual clutter.

LT Nunez saw this as a huge problem. The clutter and the switching off of the radar caused a lack of situational awareness on part of the operators, especially during intense parts of the scenario. LT Nunez brought his concerns to the attention of the scenario coordinator, but was met with resistance and an insistence that the lack of situational awareness was not a problem.

If you were in LT Nunez's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Gather evidence about the consequences of the glitch and bring it up during after-action review.
- B. Report the problem with the scenario coordinator to his/her superior.
- C. Accept that it is the scenario coordinator's job to oversee the running of the scenario and focus on how the participants overcome the lack of situational awareness.
- D. Encourage the participants to complain that they don't feel they're getting a realistic exercise due to the glitch with the scenario systems.

Most Likely ☐

Least Likely ☐

Notes

Scenario 4

CPT Donaldson led a group of military advisors assigned to a local national police force. The advisors and police conducted a combined operation to locate a high value target hiding in a small house in a nearby village. The police detained the target and processed him in the local judicial system. The next day, CPT Donaldson went to the prison to visit the target and was told that the target had been released to the community. CPT Donaldson asked the police leadership why he had been released and did not receive a clear reason. Mistrust grew between the two units, disrupting the advising relationship.

If you were in CPT Donaldson's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Reframe your thinking about how involved you need to be in the local judicial system, knowing that it will have to work on its own eventually.
- B. Advise the police chief to conduct another operation to re-take the target and allow your advisor team to obtain any information the target can provide.
- C. Talk to other parties in the local judicial system to see if you can find out what the justification for his release was.
- D. Work on gathering better intelligence and evidence on the target and present this to the police chief and advise him to conduct another mission to re-detain the target.

Most Likely ☐

Least Likely ☐

Notes

Scenario 5

While deployed, CPT Matthews, a Company commander, led one of his platoons on a mission to recover a shipping container that had been detained by local national police. The contracted shipping company had been stopped at the border carrying Army equipment containers that were marked as being U.S. property containing HMMWV repair parts, but were not escorted by U.S. forces. The local nationals suspected the container was carrying ammunition that was not properly marked. CPT Matthews could not see any reason for the local nationals to be suspicious. The local nationals believed they had the right to view the contents of any container crossing their border. CPT Matthews wanted to be very sensitive not to disrupt the relationship with the locals and wanted to help save face for the local base CDR, while still recovering the equipment and assuring them it was properly marked.

If you were in CPT Matthews' position, and given the following options, what would you personally most likely *and* least likely do?

- A. Refuse to open the container unless the local nationals can justify their suspicions.
- B. Open the shipping container and allow them view its contents, but not to search the container.
- C. Talk to the local nationals and try to get to the bottom of what caused them to be suspicious.
- D. Explain to the local nationals that for the nation to be allies with coalition forces, there needs to be a level of trust that would be violated by opening the container.

Most Likely

☐

Least Likely

☐

Notes

Scenario 6

CPT Clark was attached as civil-military support to a humanitarian dental effort. CPT Clark was there to facilitate interaction with the local population and spread the word about the services available. However, the local government insisted that information about the services could only be distributed with approval and through the national government. However, the representatives CPT Clark had to work with were antagonistic and slow in responding and generally publicizing the effort.

If you were in CPT Clark's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Arrange a meeting with the local government officials and try to understand more about why they are resistant.
- B. Request that someone above you in the U.S. chain of command reach out to someone higher in the local government to bypass the resistance.
- C. Try to informally publicize your services through word of mouth, but nothing official.
- D. Comply with their bureaucratic processes for publicizing the efforts, accepting the delays in order to maintain a good relationship with the government.

Most Likely ☐

Least Likely ☐

Notes

Scenario 7

CPT Smith was a Field Artillery (FA) officer assigned to an Apache helicopter task force, working in the S3 shop. The Battalion XO assigned CPT Smith to plan and run the redeployment of the task force back to home station. This included hundreds of Soldiers, 27 helicopters, and 90+ containers. As an FA officer, CPT Smith lacked experience and in-depth knowledge of how to transport aviation equipment. Coordination for personnel movement, container movement, and helicopter flight/movement all needed to be coordinated separately through different Brigade/theater organizations. Furthermore, the Battalion XO emphasized the need to prevent any loss of flight hours or ground support in the process.

If you were in CPT Smith's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Accept the mission without comment and do your best to figure it out through trial and error.
- B. Spend a couple of days reading reference materials on aviation movement requirements and other logistics principles.
- C. Gather a team of others in the Battalion who together have the necessary knowledge and experience and operate as the coordinator of their efforts.
- D. Use a whiteboard to visualize all the elements of the problem and create a plan from there.

Most Likely

☐

Least Likely

☐

Notes

Scenario 8

Bravo Company was set to redeploy soon and LT Graves, the Company XO, had spent weeks planning the process of turning in the remaining rolling stock (HMMWV/MRAPs) to clear the equipment hand receipt and had begun to execute the plan. However, with a week left before redeployment, the Company received an order that the rest of the Brigade would redeploy and the Company would act as a ready reserve for units all over the country.

If you were in LT Graves' position, and given the following options, what would you personally most likely *and* least likely do?

- A. Be candid with the Battalion XO that, in order to successfully complete the redeployment mission, they will need more time.
- B. Contact other Company XOs in the Brigade to brainstorm ways to meet the one week suspense.
- C. Create a new redeployment plan first and work to get the equipment that was already turned in returned or replaced later.
- D. Conduct a VTC with the other Company XOs and the Battalion XO to convince him/her of the need for a longer suspense.

Most Likely ☐

Least Likely ☐

Notes

Scenario 9

LT Hansen was assigned to serve as the senior advisor to a local national army battalion. The history of the area of operations and the local Army battalion required a consistent, strong presence with the local nationals. LT Hansen was an experienced 1LT close to promotion and highly thought of by his superiors. However, it was clear the local national army commander, who was a LTC and accustomed to being advised by American CPTs, was hesitant to work with an American advisor of an even lower rank than he was used to.

If you were in LT Hansen's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Try to use his extensive time in the local national army to your benefit by consulting him about what has gone on in the local national army in the past.
- B. Ask your superiors to contact the LTC before you begin and vouch for you and describe how capable you are.
- C. Focus on the LTC's subordinates and work with them more directly and demonstrate your competence to them.
- D. Defer to the LTC whenever there is a disagreement in order to maintain a positive relationship.

Most Likely

☐

Least Likely

☐

Notes

Scenario 10

LT Smith was a highly motivated officer right out of ranger school when he arrived at his unit. The commander placed LT Smith in charge of a platoon managing the unit's logistics, a position usually reserved for a senior LT before moving on to CPT. When he arrived at the platoon, LT Smith was overwhelmed by the enormous amount of disorder and the lack of morale in the platoon. The platoon was performing poorly: missing ammunition draw times, vehicles not ready to refuel before leaving for training exercises, bickering amongst NCOs, Soldiers getting into trouble, and bad PT scores. To complicate matters, LT Smith had trained for combat arms, but was instead tasked with managing logistics, which he struggled to wrap his head around.

If you were in LT Smith's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Focus on improving the morale of the platoon. Come up with creative solutions to get everyone's buy-in before cracking down on the standards.
- B. Communicate to the Soldiers that the platoon is not up to standard and that while you adjust to the logistics world, they will have to adjust to a higher standard of unit performance.
- C. Ask NCOs to provide candid feedback on your own performance while also giving feedback to them on the ways they can take more responsibility for the performance of their Soldiers.
- D. Challenge the Soldiers to take more pride in their branch and show that they can meet the same standard of discipline as a combat arms unit.

Most Likely ☐

Least Likely ☐

Notes

Scenario 11

LT Aldridge's platoon leader was responsible for providing security in a sector of town. Many welcomed the platoon's presence because it helped decrease crime in the area. While on patrol, LT Aldridge encountered an incident involving two young local females in the market area dressed in an American style, rather than traditional religious garments. The young women were being followed and verbally accosted by a group of men who felt the women were being disrespectful in their dress and mannerisms. The women were afraid and claimed that they had believed the presence of American Soldiers in their town meant they were free to dress and act more liberally. Although LT Aldridge knew the rules of engagement instructed not to interfere with local tribal traditions, his interpreter warned that if the women were left on their own, they would likely be killed or stoned.

If you were in LT Aldridge's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Place your squad between the males and females to buy time for the females to get to safety.
- B. Tell the females that your presence there does not change their society and that they should go home as quickly as possible.
- C. Tell the females to find some garments in the market as soon as possible and follow them until they are adequately dressed.
- D. Encourage local bystanders to help resolve the situation peacefully by separating the men from females and finding them adequate clothing.

Most Likely

☐

Least Likely

☐

Notes

Scenario 12

CPT Bolino was tasked by LTC Young to conduct a commander's inquiry into an allegation that SSG Adams, the command group secretary, had falsified documents in order to get promoted. Despite being in the same company, CPT Bolino and SSG Adams did not work directly together. However, SSG Adams would occasionally come to CPT Bolino to talk about difficult personal situations outside of work. LTC Young needed the inquiry done quickly. CPT Bolino felt that he could be objective in the inquiry and wanted to accomplish the tasks assigned to him.

If you were in CPT Bolino's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Conduct the inquiry and include a summary of your personal relationship as part of your report.
- B. Ask a peer to volunteer to do the inquiry in your place and recommend the peer while informing LTC Young of the relationship.
- C. Conduct the inquiry, but ask a trusted peer to go over things with you as a check to prevent any bias from coming in.
- D. Tell LTC Young that you have a personal relationship with SSG Adams that some might see as influencing your objectivity, but that you would still like to conduct the investigation, with his approval.

Most Likely

☐

Least Likely

☐

Notes

Scenario 13

While at home station, CPT Adams received word of a dispute between SGT Hayes and his platoon sergeant, SFC Crouch. SFC Crouch has a very "in your face" style which produced a strained relationship with many Soldiers in the platoon. One day, after his graduation ceremony from the Advanced Leader Course (ALC), SGT Hayes went home for the rest of the day rather than returning to the unit. SFC Crouch called SGT Hayes back to work and chewed him out severely in front of many peers. SGT Hayes reportedly stormed away and threatened to get even with SFC Crouch. At this point, the incident was reported to the company commander CPT Adams.

If you were in CPT Adams' position, and given the following options, what would you personally most likely *and* least likely do?

- A. Have a private conversation with SGT Hayes' to see if his anger about the incident might result in him actually doing something to SFC Crouch.
- B. Treat the comment as a legitimate threat and take the appropriate disciplinary actions.
- C. Counsel SFC Crouch and explain to him that his leadership style is ineffective and the way he handles discipline needs to change.
- D. Treat it as an isolated incident of blowing off steam, but tell SGT Hayes' peers to report if he continues to make any kind of threat to SFC Crouch.

Most Likely

☐

Least Likely

☐

Notes

Scenario 14

CPT Martin was a Battalion signal staff officer in an aviation unit, primarily assigned to maintain a computer network to prevent sensitive information being compromised. One day, CPT Martin was notified that the network had a potential compromise on a mission-critical weather station computer. That computer largely determined if it was safe for the pilots to fly or not. Scans indicated the computer had a virus, but it was unclear how threatening it was. Standard protocol in this case would be to remove the computer from the network. However, at that time, the weather was becoming severe and pilots already in the air needed guidance on which paths they could safely travel. Inaccurate guidance or a lack of guidance posed a grave threat to the pilots. The Battalion XO and commander deferred to CPT Martin's judgment about the level of threat posed by the virus.

If you were in CPT Martin's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Remove the computer from the network and instruct the pilots to ground their flights as soon as possible.
- B. Wait to remove the computer until the pilots can find a suitable landing spot.
- C. Leave the computer on the network until the mission is complete.
- D. Discuss the nature of the virus with other signal officers you can get in touch with and see if they have any knowledge on the severity.

Most Likely ☐

Least Likely ☐

Notes

Scenario 15

While deployed on a security force assistance mission, CPT Jones was tasked with oversight of police mentors. A local cultural advisor had been assigned to the lead U.S. police mentor. This individual had served well as an advisor for three years. CPT Jones received word that the cultural advisor's name had been mentioned by known criminal actors as being a bad guy who extorted other locals with his position, using it to extort money and improve his position in the local community. He was also accused of passing classified or sensitive information to others. The cultural advisor was married to the local governor's daughter.

If you were in CPT Jones' position, and given the following options, what would you personally most likely *and* least likely do?

- A. Fire the cultural advisor to avoid the risk of any more classified or sensitive information being released.
- B. Speak to a trusted leader in the local community about the situation as a hypothetical and see what he recommends.
- C. Wait to take action until a source more trustworthy than the known criminal actors makes an accusation.
- D. Speak with the cultural advisor and see if he gets unusually defensive or seems guilty.

Most Likely

☐

Least Likely

☐

Notes

Scenario 16

LT Gonzalez was in command of a convoy that included multiple fuel tankers. Nearby, another convoy came under heavy enemy fire. Helicopters nearby were called in to provide close air support, but were getting low on fuel. The only place to receive fuel was far enough to delay the support to the convoy by 30-45 minutes. While on the way to the fuel point, the pilots spotted LT Gonzalez's convoy. They landed immediately and briefed LT Gonzalez on the situation and their need for immediate resupply. LT Gonzalez resisted, noting that his fuel had not been tested to determine if it was aviation-grade or not. The pilot wanted to accept the risk, because the need was so pressing. However, LT Gonzalez was concerned about completing his own mission as well as the risk to the aircraft.

If you were in LT Gonzalez's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Give the pilot the fuel that he is requesting.
- B. Attempt to communicate with another informed party, e.g., at the fuel point or an engineer, to get another perspective on how much risk is associated with using lower-grade fuel.
- C. Wait to get approval from higher up on the helicopter pilot's chain of command.
- D. Argue that the fuel is needed at their original destination and that the pilots should use their designated re-fueling point where they can obtain appropriate fuel.

Most Likely

☐

Least Likely

☐

Notes

Scenario 17

CPT Kennedy was deployed as an advisor to Captain Hadad, a local district chief of police. CPT Kennedy's mission was to help Captain Hadad and his police gain the trust of locals and establish security within his district so that the host nation could regain all control and responsibility of his district. Captain Hadad was a competent police officer, but struggled with long-range planning, and was unfamiliar with the district he just assumed responsibility over. CPT Kennedy had knowledge and experience planning and needed to devise a method of simultaneously gaining and maintaining security while mentoring Captain Hadad on assuming all control of his district.

If you were in CPT Kennedy's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Do the necessary long-range planning yourself and have Captain Hadad build short-term plans within that, while extending the length of Captain Hadad's plans over time.
- B. Conduct long-range planning yourself, but keep Captain Hadad closely involved in all meetings so that he learns through observation.
- C. Invite local leaders with the trust of the population to long-range planning meetings with Captain Hadad so that he gets to know the area and can get their input on how his plans will affect the population.
- D. Research the history of the area and find examples of previous police chiefs who have ignored long-range issues and explain what happened as a result.

Most Likely

☐

Least Likely

☐

Notes

Scenario 18

While deployed, CPT McCoy, Battalion S4, noticed shortages in fuel as fuel trucks arrived to her forward operating base (FOB). Records show that the local national fuel trucks had the appropriate fuel when leaving from the previous FOB and surveillance images did not indicate the vehicles were leaving the route to offload fuel while moving between FOBs. No obvious leaks in the tanks could be found. As the amount of fuel missing increased over the months, CPT McCoy became concerned as it was approaching several hundred gallons a week.

If you were in CPT McCoy's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Confront the truck drivers with the missing fuel numbers and request an explanation.
- B. Get rid of the existing truck drivers and contract with a different local trucking company.
- C. Consult with U.S. engineers to see if they have any explanation for why fuel levels might decrease from departure to arrival.
- D. Recommend to the paying agent to only pay for the amount of fuel that arrives.

Most Likely

☐

Least Likely

☐

Notes

Scenario 19

CPT Norris was a company executive officer serving under what he felt was an incompetent commander, CPT Jacobs. CPT Jacobs struggled to make decisions, and often showed little personal respect for his Soldiers, a lack of trust in his NCOs, and was not confident tactically. Many in the company felt the performance of the company was degraded since the previous CDR had left.

If you were in CPT Norris's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Use your own leadership skills to maintain performance and morale among the Soldiers in the company while CPT Jacobs remains in command.
- B. Request a meeting with the Battalion XO to explain to him the problems you see with CPT Jacobs.
- C. Accept that CPT Jacobs is in command and focus on what you can learn about what you won't do if you become a company commander.
- D. Be up front with CPT Jacobs that the Soldiers and NCOs in the unit feel disrespected and that if nothing changes you are worried about the performance of the unit.

Most Likely ☐

Least Likely ☐

Notes

Scenario 20

LT Mason was a company fire support officer (FSO) providing advice to the commander and de-conflicting different assets. LT Mason was preparing to return home with his unit for an early redeployment, but instead he was assigned to stay and work on the Battalion staff. LT Mason would have to serve as the civil-military relations officer (S9), information operations officer (S7), and assistant Battalion FSO. LT Mason knew he hadn't received any training for the S7 and S9 positions and was concerned that he would not perform well in those functions.

If you were in LT Mason's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Request an NCO stay on to help with the additional staff roles.
- B. Focus on performing well in the FSO duties and make the best of it with the other areas.
- C. Pore over doctrine and other reference material on the new staff functions.
- D. Try to replicate the products produced by the previous S7 and S9 to make them work for the remainder of the deployment.

Most Likely ☐

Least Likely ☐

Notes

Scenario 21

LT Allen was stationed in Europe preparing for a deployment as a platoon leader attached with a military intelligence company in an infantry brigade. LT Allen's platoon needed extensive training in preparation for the upcoming deployment. However, a request to send his Soldiers to MOS-specific training courses back in the U.S. was denied due to lack of funding and frequent course cancellations.

If you were in LT Allen's position, and given the following options, what would you personally most likely *and* least likely do?

- A. Approach the commander and argue that, for the sake of your platoon's chance of success in deployment and in their careers, they need to be given the opportunity to receive training for their mission.
- B. Ask other units nearby if there are people that have graduated from those courses that are available to give your Soldiers some of the training.
- C. Submit a second request for only one or two of your better Soldiers to go to the courses and plan to have them teach the rest of your platoon when they return.
- D. Ask for guidance from the commander on what to do when budgets are constrained, but Soldiers need training.

Most Likely

☐

Least Likely

☐

Notes

Appendix B
Scoring Materials

Scoring Instructions

SCENARIO

If you were in _____'s position, and given the following options, what would you, personally, most likely *and* least likely do?

- A. Option that is a positive indicator of the mindset characteristic
- B. Option that is neutral
- C. Option that is neutral
- D. Option that is a negative indicator of the mindset characteristic

Most Likely

D

Least Likely

C

To score this test item:

- Note the letters of the responses they choose for endorsement and rejection
 - o DC
- Compare this combination with the scoring key for that test item
 - o DC
- The score for this test item is -1.

AD = 2 pts.

AB, AC, BD, CD = 1 pt.

BC, CB = 0 pts.

DB, DC, BA, CA = -1 pts.

DA = -2 pts.

Computing Test Scores

Through analysis of pilot testing data, a subset of 12 items provide the most reliable score. To compute scores for each characteristic, and an overall score, use the accompanying Scoring Sheet.

Items for scoring

Intellectual Flexibility Score: 5, 8, 20, 21

Intellectual Humility Score: 4, 7, 9, 10

Intellectual Inclusiveness Score: 6, 14, 15, 18

Note: In computing scores, remember that adding a negative score is the same as subtracting the value of the score. So, adding together the scores 1, 2, 0, and -2 is the same as $(1 + 2 + 0 - 2) = 1$.

Scoring Sheet

Intellectual Flexibility

Scenario $\frac{\quad}{5} + \frac{\quad}{8} + \frac{\quad}{20} + \frac{\quad}{21} = \underline{\quad}$

Intellectual Humility

Scenario $\frac{\quad}{4} + \frac{\quad}{7} + \frac{\quad}{9} + \frac{\quad}{10} = \underline{\quad}$

Intellectual Inclusiveness

Scenario $\frac{\quad}{6} + \frac{\quad}{14} + \frac{\quad}{15} + \frac{\quad}{18} = \underline{\quad}$

TOTAL = $\underline{\quad}$

Scoring Key

Use this key to find the score for each possible response and also to identify which response options for each scenario are scored as positive, negative, or neutral for each scenario. For example, in Scenario 21, because BA is scored as 2, that means that option B is the positive option for the characteristic, A is the negative option, and C and D are neutral.

Scenario 1 - Inclusiveness

DA = 2
DB, DC, BA, CA = 1
BC, CB = 0
AB, AC, BD, CD = -1
AD = -2

Scenario 2 - Flexibility

AD = 2
AB, AC, BD, CD = 1
BC, CB = 0
DB, DC, BA, CA = -1
DA = -2

Scenario 3 - Humility

CD = 2
CA, CB, AD, BD = 1
AB, BA = 0
DA, DB, AC, BC = -1
DC = -2

Scenario 4 - Humility

AB = 2
AC, AD, CB, DB = 1
CD, DC = 0
BC, BD, CA, DA = -1
BA = -2

Scenario 5 - Flexibility

BA = 2
BC, BD, CA, DA = 1
CD, DC = 0
AC, AD, CB, DB = -1
AB = -2

Scenario 6 - Inclusiveness

AC = 2
AB, AD, BC, DC = 1
BD, DB = 0
CB, CD, BA, DA = -1
CA = -2

Scenario 7 - Humility

CA = 2
CB, CD, BA, DA = 1
BD, DB = 0
AB, AD, BC, DC = -1
AC = -2

Scenario 8 - Flexibility

BD = 2
BA, BC, AD, CD = 1
AC, CA = 0
DA, DC, CB, AB = -1
DB = -2

Scenario 9 - Humility

BD = 2
BA, BC, AD, CD = 1
AC, CA = 0
DA, DC, CB, AB = -1
DB = -2

Scenario 10

CD = 2
CA, CB, AD, BD = 1
AB, BA = 0
DA, DB, AC, BC = -1
DC = -2

Scenario 11 - Inclusiveness

CD = 2
CA, CB, AD, BD = 1
AB, BA = 0
DA, DB, AC, BC = -1
DC = -2

Scenario 12 - Humility

DA = 2
DB, DC, BA, CA = 1
BC, CB = 0
AB, AC, BD, CD = -1
AD = -2

Scoring Key

Scenario 13 - Flexibility

AB = 2
AC, AD, CB, DB = 1
CD, DC = 0
BC, BD, CA, DA = -1
BA = -2

Scenario 14 - Inclusiveness

DA = 2
DB, DC, BA, CA = 1
BC, CB = 0
AB, AC, BD, CD = -1
AD = -2

Scenario 15 - Inclusiveness

BA = 2
BC, BD, CA, DA = 1
CD, DC = 0
AC, AD, CB, DB = -1
AB = -2

Scenario 16 - Flexibility

BD = 2
BA, BC, AD, CD = 1
AC, CA = 0
DA, DC, CB, AB = -1
DB = -2

Scenario 17 - Inclusiveness

CA = 2
CB, CD, BA, DA = 1
BD, DB = 0
AB, AD, BC, DC = -1
AC = -2

Scenario 18 - Inclusiveness

CB = 2
CA, CD, AB, DB = 1
AD, DA = 0
BA, BD, AC, DC = -1
BC = -2

Scenario 19 - Humility

CB = 2
CA, CD, AB, DB = 1
AD, DA = 0
BA, BD, AC, BC = -1
BC = -2

Scenario 20 - Flexibility

CA = 2
CB, CD, BA, DA = 1
BD, DB = 0
AB, AD, BC, DC = -1
AC = -2

Scenario 21 - Flexibility

BA = 2
BC, BD, CA, DA = 1
CD, DC = 0
AC, AD, CB, DB = -1
AB = -2

Interpreting Your Score

There is no cutoff for a “good” score. Your scores are a glimpse at how you tend to think about certain types of problems, relative to others. Use your scores as a trigger for self-reflection and metacognition (thinking about how you think).

Positive scores

You tend to think about complex work-related problems in a flexible, humble, or inclusive way.

Negative scores

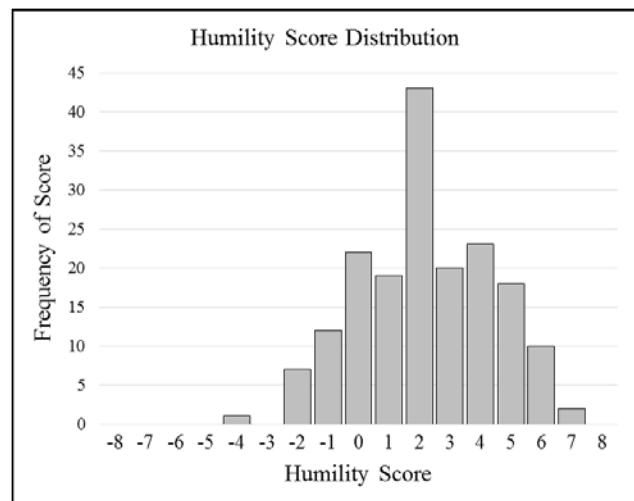
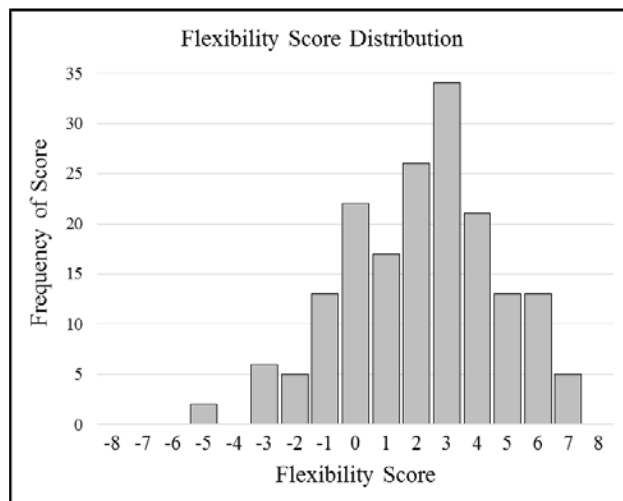
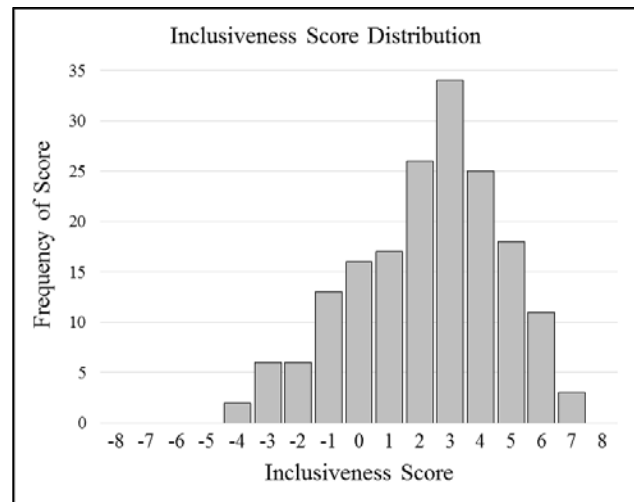
You tend to think in an opposing way (rigid, egotistical, or insular).

Scores among the pilot test sample are shown below (177 LTs and CPTs).

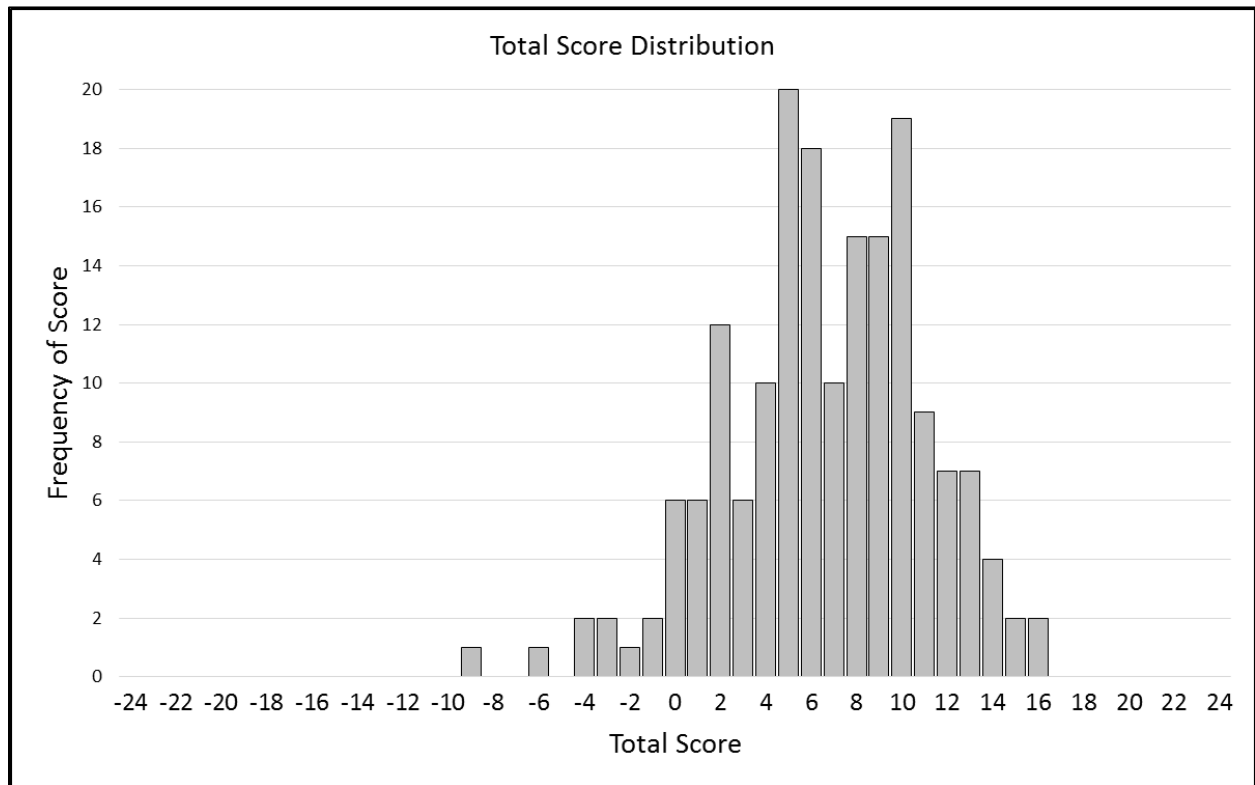
Use these charts to see where your scores fall in relation to others.

Your score is **not a general indicator** of you as a person. These items are focused on small distinctions in the way you tend to think about solving problems, not your behavior in general.

Use these scores to re-consider how you thought about the scenarios. Make a plan for how you will practice these habits of mind as you develop as a professional Army leader.



The total overall score simply combines the three characteristic scores. Use this score to understand how your three scores, together, relate to others.



Appendix C

Handout Explaining the Mindset Characteristics

Mindset Characteristic Definitions

Intellectual Flexibility

What it is:

- Willingness and tendency to adjust one's understanding, opinions, or approach when conditions change or new information is presented.

What it is NOT:

- Resisting necessary or optimal change.
- Breaking from long-term strategy.

Flexibility is about bending, not breaking. Allow for adaptation and adjustment in the face of changing conditions, without abandoning the long-term effort and developing another strategy from scratch.

Intellectual Humility

What it is:

- Comfort with admitting to being wrong or having an incomplete understanding of something.
- Tendency to check oneself; examining issues as if one's understanding is somehow wrong or incomplete.

What it is NOT:

- Reacting defensively to proposed changes or constructive feedback.
- Having a bias in favor of maintaining old beliefs or assumptions.

Intellectual Inclusiveness

What it is:

- Welcoming of information and opinion from a broad range of sources (e.g. individuals, groups, disciplines, or other relevant parties).
- Valuing the holistic understanding that can come from examining an issue from many perspectives.

What it is NOT:

- Being hesitant to consider new or unusual sources of information.
- Fearing having too many voices involved in a discussion.
- Including everything

An inclusive mindset values the potential benefit of a broad perspective, while relying on other processes and judgment to filter information that does not contribute to understanding.

Appendix D

Discussion Guide

Discussion Guide

The results of the STMT can and should be discussed, particularly in reference to the kinds of scenarios most often confronting each particular Soldier. One on one sessions between a Soldier and mentor may be best for identifying ways and opportunities for the Soldier to develop their mindset. Group sessions (e.g., as part of a leader development program event) in which several Soldiers and a mentor discuss the scenarios and options may be best for practicing creative thinking about how intellectual flexibility, intellectual humility, and intellectual inclusiveness are integrated in decision-making.

To help facilitate these discussions, suggested questions and topics are provided below.

Reflecting on results

This test is designed to measure flexibility, humility, and inclusiveness in problem solving. Do you think you have these attributes?

What do your scores indicate? In general and in relation to the distribution of scores?

Your scores are only one data point and are meant to help you reflect. Do your scores surprise you? If so, which ones?

Which scenarios were the hardest to choose between options?

What drove you to make the choices you did?

Did you find it hard to think about the problem without more detail?

How was your thinking influenced by any basic assumptions you have?

What is one thing you will take away from these results that will guide your thinking in the future?

Creative thinking and personal application

For scenarios that didn't have a response option you liked, what would you suggest? Explain how it does or does not exhibit flexibility, humility, or inclusiveness.

What experiences have you had that demonstrated intellectually flexible, humble, or inclusive thinking? What did you/others do?

What scenarios have you dealt with recently that were complex or ambiguous? Do you think your response exhibited flexibility, inclusiveness, or humility?

What do you think about the importance of practicing flexibility, humility, and inclusiveness in your decision-making as a tactical leader?

Do you spend time thinking about how to prepare yourself now for the work you'll have to do if you are promoted? What do you think about?