I predict that you will immediately notice that learning to develop skills in prompt engineering is an EXACT MATCH to developing a Commander's Intent, Vision and Endstate, Initial Planning Guidance. Therefore, engaging with AI's systematically in our classroom will enhance our leader communication skills and is a highest priority mission essential task that should be a top level program Learning Outcome of our annual curriculum. Change my mind

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# The following essay demonstrates a number of human-AI partnership principles -inaction

- 1. Chain reasoning
- 2. Agent/avatar creation (developing a focused AI persona to act in a certain, purposeful skilled way in support of the human Senior Partner)
- 3. How to develop a complete organizational program of instruction with certifications for the Army partnering with the Waters Center for Systems Thinking which includes a pilot elective for next year which I am soliciting for 4 faculty participants now)
- 4. I am using this essay as part of a project with University of Pennsylvania towards constructing a personalized teach assistant agent/avatar to explore developing a program for our department and later the college and later Army University

Here is a summary of the chain-reasoning prompts used in the following essay. It's important to note that these prompts emerged organically from the dialogue and not from a pre-planned path of exploration, This was genuine discovery learning

- 1. 10 ways a thought leader can apply best practices in prompt engineering for good ethical support to the team?
- 2. initially exploring objections to learning/applying Systems Thinking (ST)
- 3. Answering the Al's excellent clarifying questions, adding detail to the guidance (chain-reasoning, partnering)
- 4. adding insights about a curriculum based approach with an initial assessment instrument for an organizational program
- 5. develop ideas for organizational leaders to apply ST
- 6. how to add experiential learning and student knowledge to a course on ST
- 7. Add the structure of Bloom's taxonomy to the emerging curriculum ideas for the Army
- 8. Add ideas for faculty development and mentoring

- 9. Assess a plan for a year long pilot elective combining faculty and student certification
- 10. Add principles of the Kilpatrick assessment model for Program Learning Outcomes
- 11. Examine the resources, curriculum and structure of the Waters Center for ST as a base of support, partnership
- 12. compare and contrast WCST vs 4 other systems thinking org solutions and the ad hoc approach
- 13. Develop an agent named My Educational Advisor to incorporate all of the above considerations into an ongoing specialized assistant
- 14.Deverlop an agent named My Executive Council to represent senior level critical thinking, stewardship and risk management
- 15. Summarize all of the above and use the 2 named agents to suggest thoughtful next steps and critical thinking questions about the whole project. These will be the start point for work loading the pilot program participants)

please describe the top 10 things a busy executive or planner or operations officer or a graduate school professor in a professional college needs to know about advanced prompt engineering in order to quickly achieve entry level practitioner mastery of AI prompt engineering for the purpose of doing policy analysis, lesson plan development, concept development, critical thinking and persuasive writing for an audience of professional decision makers in large organizations. How can a thought leader apply best practice in prompt engineering to leverage the tools like Claude 3 OPUS for best ethical effects

Here are the top 10 things a busy executive, planner, operations officer, or graduate school professor should know to quickly achieve entry-level mastery of AI prompt engineering for policy analysis, lesson planning, concept development, critical thinking and persuasive writing:

- Understand the Al's capabilities and limitations: Learn what the Al model excels
  at (e.g., language tasks, information synthesis) and its constraints (e.g., knowledge
  cutoff date, potential for biased outputs). This helps set realistic expectations.
  (Source)
- 2. **Use clear and specific instructions**: Provide detailed context and explicit directions in prompts to guide the AI towards the desired output. Ambiguity can lead to irrelevant or incorrect responses. (Source)
- 3. **Break down complex tasks into steps**: For multifaceted projects, split the work into a series of focused prompts tackling each subtask. This makes the process more manageable for the AI and easier to iterate and refine. (Source)
- 4. **Provide examples and templates**: Include relevant samples of the desired output format, writing style, or problem-solving approach in the prompt. The AI can then emulate these patterns in its responses.
- 5. **Iterate and refine prompts**: Critically evaluate the AI's outputs and adjust prompts as needed to improve relevance, coherence, and alignment with objectives. Prompt engineering is an iterative process. (Source)
- 6. **Leverage the Al's role-playing abilities**: Guide the Al to adopt relevant personas (e.g., subject matter expert, devil's advocate) to generate diverse perspectives and counterarguments, enhancing critical thinking.
- 7. **Incorporate domain-specific knowledge**: Provide the AI with curated background information, data points, and expert insights to contextualize the task and elevate the quality of outputs.

- 8. **Employ fact-checking and human oversight**: Verify the accuracy of Al-generated content using authoritative sources. Have subject matter experts review outputs to catch errors and ensure alignment with organizational standards.
- 9. **Maintain ethical standards**: Craft prompts that steer the AI towards generating content that is unbiased, inclusive, and adheres to ethical principles. Be vigilant about the potential for misuse.
- 10. **Continuously learn and adapt**: Stay updated on advancements in prompt engineering techniques, best practices, and AI capabilities. Adapt approaches as the technology evolves and new use cases emerge.

By mastering these prompt engineering fundamentals, thought leaders can harness tools like Claude and GPT-4 to enhance policy analysis, lesson planning, concept development, critical thinking, and persuasive writing. Well-crafted prompts help generate valuable insights, alternative viewpoints, and compelling narratives that can inform decision-making in large organizations while maintaining ethical standards.

i am thinking of doing a focused dialogue with the AI on exploring typical objections, worries, concerns, hesitations about engaging with the scary monolith of "Systems Thinking"/ i know that true believers, kids, the curious, the carefree just jump in and start paddling and see what comes up.... i want to know what the AI thinks about the profile of the cautiously pessimistic, the skeptic, the cynic with respect to ST and see how we might begin crossing the no man's land....which is kind of consistent with the previous essay on Catalyst skills for Org Dev and Transformation. what clarifying questions do you need before beginning our exploration

Thank you for sharing your idea about exploring the concerns and hesitations people may have when engaging with Systems Thinking. This is an interesting perspective that can provide valuable insights for encouraging more people to embrace this approach. Before we begin our exploration, I have a few clarifying questions to better understand the context and focus of our dialogue:

- Are there specific domains or industries where you've observed the most resistance or skepticism towards Systems Thinking (e.g., business, education, public policy, or others)?
- 2. In your experience, what are some of the most common objections or misconceptions people have about Systems Thinking that may contribute to their hesitation to engage with it?
- 3. Are you primarily interested in exploring the mindset and concerns of individuals who are entirely new to Systems Thinking, or also those who have some familiarity but remain skeptical about its application and value?
- 4. Do you have any specific goals or outcomes in mind for this dialogue, such as developing strategies to address the concerns of skeptics or creating resources to help bridge the gap between the skeptics and the believers?
- 5. Are there any particular aspects of Systems Thinking that you believe are most likely to be misunderstood or met with resistance, such as its theoretical foundations, practical applications, or potential impact on existing processes and structures?
- 6. In the context of organizational development and transformation, how do you envision the insights from this dialogue contributing to the broader discussion of Catalyst skills and their role in facilitating change?

Your answers to these questions will help me better understand your perspective and tailor our dialogue to explore the concerns and hesitations surrounding Systems Thinking

effectively. Feel free to provide as much detail as you think is necessary, and let me know if you have any other thoughts or considerations you'd like to share before we begin.

- 1. the biggest resistance comes from people who are also, metaphorically afraid of math and the dark, believing that systems thinking is too complex for them to grasp and so they refrain from taking the early learning steps, which often go wrong, in order and so they never start on the learning journey in spite of supportive encouragement which they don't feel applies to them and their special circumstances. There are others though, that are more skilled and for whatever reason, have what they believe is an evidence-based judgement that systems thinking is not appropriate for the particular situation they find themselves in and therefore object to its use, and either passively or actively reject its use
- 2. scan your training base for a more complete list of reasons that people might object to a new way of thinking, such as Kuhn's model of paradigms, or the Luddite-style aversion to any new, complex set of ideas or technologies that threaten to transform the status quo in uncertain ways that cannot be predicted and which triggers the default fear and avoidance survival mechanisms. Usually, people object to the time and attention requirement they detect will be necessary to absorb new, non-trivial thinking and behaving processes, and they don't want to change their comfortable and successful routines. Inertia is a powerful force in behavioral psychology. Also consider James Clear's materials on Atomic Habits and recognize what it takes to overcome well established rituals and routines of behavior and attitude.
- 3. I want to treat both categories of inexperienced people as separate but chained demographic subgroups. Consider the entry level, unaware "newbie" or "noob" but in a non judgmental way, and then those who have some familiarity cognitively but who have not yet put systems thinking into action. Consider the next group as those who may have tried systems thinking briefly, but perhaps without enough success or even some failures or inconclusive undistinguished results that have not persuaded them as to Systems Thinking efficacy. You could use the Bloom's taxonomy in this case to categorize how to treat each subsequent group of people according to their assessed skill level, even if they were to self select into an appropriate learning group
- 4. i want to establish a set of focused, tiered, chained lessons and education courses to focus people of similar skill levels into aligned groups that allow tight focus on moving them through gates to new levels of increasing skills in a manageable, evidence based process.
- 5. Use the principles, processes, tools, and habits of Systems Thinkers as described by the Waters Center for systems thinking and recognize that potentially any of that curriculum could be the location of the stumbling point or source of dis-belief or the location of a lack of skill which would inhibit further effective use of systems thinking,

so, a rapid, comprehensive and sufficient but not oppressive assessment instrument should be created and applied to help manage the educational problem we are describing

6. I believe that the technical answers and educational program from this discussion will connect to the broader principles, practices and insights from our catalyst discussions to help facilitate the design, development, delivery and adaptation of a systems thinking program of instruction that will efficiently and effectively help people adopt the positive aspects of systems thinking and help them develop better problem diagnosing, problem framing and problem solving skills,

The Catalyst leader insights i expect will help central change agents develop solutions that can be implemented at the organizational level as well as at the individual level by applying systems thinking itself to this process in a meta- approach. Since this is likely to be along response from you, i will simply re-prompt with the word CONTINUE to so that you can proceed until completion. If you have a need for additional clarity as you proceed, simply respond with the questions and i will continue to add to the instruction and context set and i will be grateful for your patient inquiry and hard work

Thank you for providing such a comprehensive and insightful response to my clarifying questions. Your answers have given me a clear understanding of the context, challenges, and objectives surrounding the adoption of Systems Thinking. I appreciate the depth and nuance you've brought to this discussion, as it highlights the complexity of the issue and the need for a carefully considered approach.

Based on your input, I can see that the resistance to Systems Thinking stems from both individual and organizational factors, including fear of complexity, comfort with the status quo, and lack of evidence-based success stories. It's important to recognize these barriers and develop strategies to address them at various levels.

Your idea of creating tiered, focused learning groups based on skill levels and familiarity with Systems Thinking aligns well with the principles of effective education and change management. By meeting people where they are and providing targeted support, we can help them progress through the stages of learning and adoption more efficiently.

To design such a program, we can draw upon established frameworks like Bloom's Taxonomy and the work of the Waters Center for Systems Thinking. These resources provide a solid foundation for assessing skills, identifying stumbling points, and creating a comprehensive curriculum.

As we develop this educational program, it's crucial to keep in mind the broader principles and practices of Catalyst leadership. By applying Systems Thinking to the process itself, we

can create solutions that address individual and organizational needs, while fostering a culture of continuous learning and adaptation.

To move forward, I suggest the following steps:

- Develop a comprehensive assessment instrument to evaluate individuals' current skill levels and identify specific areas of resistance or difficulty with Systems Thinking.
- 2. Create a tiered curriculum based on the assessment results, with each level focusing on specific skills, concepts, and applications of Systems Thinking. Ensure that the content is engaging, relevant, and evidence-based.
- 3. Design a support system for learners, including mentorship, peer learning, and access to resources and case studies that demonstrate the practical value of Systems Thinking.
- 4. Engage Catalyst leaders and change agents to champion the program within their organizations, and provide them with the tools and strategies to effectively communicate the benefits of Systems Thinking and manage resistance to change.
- 5. Establish a feedback loop to continuously evaluate the effectiveness of the program, gather success stories and lessons learned, and adapt the curriculum as needed to ensure ongoing relevance and impact.
- 6. Foster a community of practice around Systems Thinking, where learners and practitioners can share their experiences, collaborate on projects, and contribute to the growing body of knowledge in this field.

By taking a systematic and adaptive approach to promoting Systems Thinking, we can help individuals and organizations overcome their initial resistance and unlock the full potential of this powerful methodology.

Please let me know if you have any further thoughts or ideas on this plan, or if there are any additional aspects you'd like me to explore in more detail. I'm excited to continue our dialogue and work towards developing a robust educational program for Systems Thinking.

i think you have grasped the situation and opportunity completely and are ready to proceed. I concur that a good initial, yet comprehensive assessment instrument is essential for making measured progress throughout the length and breadth of what is emerging as a curriculum based approach to skills development for adult learners. I especially will need some concise executive level summaries and persuasions to gain commitment at the programmatic level for organizational solutions from senior leaders, including lessons and session designed specifically for senior leaders at the executive level, much like senior executive education in business and strategy programs in graduate school.

Thank you for your affirmation and additional insights. I agree that securing commitment from senior leaders is crucial for the success of this initiative, and that tailoring specific lessons and sessions for executive-level participants is a key component of the overall strategy.

To gain support from senior leaders, we need to develop compelling executive-level summaries and persuasive materials that clearly articulate the value proposition of Systems Thinking. These should include:

- 1. A concise overview of Systems Thinking principles and their relevance to organizational performance, decision-making, and innovation.
- 2. Case studies and success stories demonstrating the tangible benefits of Systems Thinking in various industries and contexts, with a focus on strategic outcomes and competitive advantage.
- 3. A high-level roadmap of the proposed educational program, highlighting its tiered structure, assessment-based approach, and alignment with organizational goals and priorities.
- 4. Testimonials from respected thought leaders, practitioners, and executives who have successfully applied Systems Thinking in their organizations and can speak to its transformative potential.
- 5. A cost-benefit analysis that quantifies the expected return on investment in terms of improved performance, increased agility, and enhanced problem-solving capabilities across the organization.

For the executive-level sessions, we should design a condensed, high-impact curriculum that focuses on the strategic applications of Systems Thinking. This could include:

1. Interactive workshops and simulations that engage senior leaders in real-world problem-solving scenarios, demonstrating the power of Systems Thinking in action.

- 2. Peer learning and networking opportunities, where executives can share their experiences, challenges, and insights related to Systems Thinking and its implementation.
- 3. Customized coaching and mentoring sessions, where senior leaders can work oneon-one with experienced Systems Thinking practitioners to develop their skills and apply them to specific organizational challenges.
- 4. Integration with existing executive education programs, such as those offered by business schools or professional associations, to provide a comprehensive and credible learning experience.

By tailoring our approach to the needs and preferences of senior leaders, we can secure their buy-in and create a strong foundation for the broader adoption of Systems Thinking across the organization.

As we develop these executive-level materials and sessions, it will be important to maintain a focus on the practical, action-oriented aspects of Systems Thinking, and to demonstrate its alignment with the strategic priorities and values of the organization.

I recommend that we assemble a cross-functional team of subject matter experts, instructional designers, and communication specialists to collaborate on the development of these executive-level resources. This team should work closely with senior leaders and other key stakeholders to ensure that the content and format of the materials and sessions are tailored to their specific needs and preferences.

Please let me know if you have any further guidance or priorities for this aspect of the initiative, or if there are any additional considerations we should keep in mind as we move forward. I'm confident that with a well-crafted approach and the right resources, we can successfully engage senior leaders and secure their support for the broader implementation of Systems Thinking across the organization.

proceed to developing ideas for organizational leaders that already have a rich experience base to draw upon who would benefit from being able to see how systems thinking might be applied in their direct experience using powerful and exemplar case studies they could use to apply metaphorical reasoning

Absolutely. For organizational leaders with extensive experience, it's essential to demonstrate how Systems Thinking can be applied to their specific contexts and challenges, and to provide them with compelling case studies that facilitate metaphorical reasoning and knowledge transfer.

To achieve this, we should curate a collection of powerful, relevant case studies that showcase the application of Systems Thinking across a range of industries, sectors, and organizational functions. These case studies should be carefully selected to resonate with the experiences and priorities of senior leaders, and to provide them with concrete examples of how Systems Thinking can be used to drive strategic outcomes and solve complex problems.

Some potential case study topics could include:

- 1. A manufacturing company that used Systems Thinking to optimize its supply chain, reduce waste, and improve product quality, resulting in significant cost savings and increased customer satisfaction.
- 2. A healthcare organization that applied Systems Thinking to redesign its patient care processes, leading to improved outcomes, reduced readmissions, and enhanced staff engagement and collaboration.
- 3. A government agency that employed Systems Thinking to develop a more effective and efficient approach to public service delivery, resulting in increased citizen satisfaction and trust, as well as better use of public resources.
- 4. A technology startup that used Systems Thinking to navigate a complex and rapidly evolving market, identify new opportunities for innovation, and develop a sustainable competitive advantage.
- 5. A non-profit organization that applied Systems Thinking to address a complex social issue, such as poverty or climate change, by engaging multiple stakeholders, leveraging scarce resources, and driving systemic change.

For each case study, we should provide a detailed analysis of the key Systems Thinking principles and tools that were applied, the challenges and opportunities that were addressed, and the outcomes and lessons learned. We should also include reflective

questions and discussion prompts that encourage leaders to draw parallels to their own experiences and to explore how they might apply Systems Thinking in their own contexts.

To further enhance the learning experience, we could organize interactive workshops or roundtable discussions where leaders can engage with the case studies in a collaborative setting. These sessions could be facilitated by experienced Systems Thinking practitioners who can guide the discussion, provide additional insights and examples, and help leaders translate the lessons learned into actionable strategies for their own organizations.

In addition to case studies, we could also provide leaders with access to a curated set of resources, such as articles, videos, podcasts, and online courses, that explore Systems Thinking concepts and applications in more depth. These resources could be organized by topic, industry, or level of expertise, and could serve as a valuable reference library for leaders as they continue to develop their Systems Thinking skills and knowledge.

Overall, by providing experienced organizational leaders with a rich array of case studies, interactive learning opportunities, and curated resources, we can help them see the value and relevance of Systems Thinking to their own work, and inspire them to become champions and advocates for its wider adoption within their organizations.

after successful achievement of that section, consider adding to that some lessons where they then proceed to nominate their own problems and their action learning group, under the supervision of a skilled facilitator who applies the principles of Gradual Release of Responsibility model to let them investigate the situation, diagnose the problems and opportunities in context and then design proposal for systems thinking actions which they could begin to experiment and apply in the real world, and then use systems thinking feedback loops to not only solve their particular problems but gain in broader experiences as a working case study, with the facilitator being in the role of ensuring the wider and deeper connections are being made and not allowing the students/agents to become overly and narrowly focused on the specifics of the current case under investigation

This is an excellent suggestion for taking the learning experience to the next level and ensuring that leaders can apply Systems Thinking principles and tools to their own real-world challenges in a structured and supportive environment.

Incorporating a Gradual Release of Responsibility (GRR) model into the action learning process is a powerful way to scaffold the learning experience and provide leaders with the guidance and support they need to develop their Systems Thinking skills and confidence over time.

Under this approach, leaders would nominate their own problems or challenges that they would like to investigate using a Systems Thinking lens. They would then form action learning groups, ideally comprising individuals from different functions, levels, and perspectives within the organization, to collaborate on the investigation and problemsolving process.

Each action learning group would be assigned a skilled facilitator who would guide the group through the various stages of the GRR model, which could include:

- Focused Instruction: The facilitator provides an overview of the key Systems
   Thinking principles and tools that are relevant to the problem at hand, and models
   their application using real-world examples and case studies.
- Guided Instruction: The facilitator works closely with the group to help them apply Systems Thinking concepts and tools to their specific problem, providing guidance and feedback along the way. This could include helping the group to map the system, identify key variables and relationships, and develop hypotheses and interventions.
- 3. Collaborative Learning: The group works together to investigate the problem, collect and analyze data, and develop and test potential solutions. The facilitator acts as a coach and mentor, providing support and guidance as needed, but allowing the group to take the lead in the problem-solving process.
- 4. Independent Learning: The group takes full ownership of the problem-solving process, applying Systems Thinking principles and tools independently to develop and implement solutions. The facilitator provides ongoing support and feedback, but the group is responsible for driving the process forward and making key decisions.

Throughout the action learning process, the facilitator plays a crucial role in helping the group to maintain a Systems Thinking perspective, and to make connections between their specific problem and the broader context in which it is embedded. This could include prompting the group to consider the wider implications of their actions, to explore unintended consequences and feedback loops, and to identify opportunities for leveraging the learning from their specific case to drive broader organizational change.

To further support the learning process, the facilitator could also provide the group with access to additional resources and expertise, such as subject matter experts, data analytics tools, or external benchmarks and best practices.

As the action learning process unfolds, the group would be encouraged to document their progress, insights, and outcomes, creating a living case study that can be shared with others in the organization. This could include regular progress reports, presentations to key stakeholders, or even the creation of a video or multimedia case study that captures the key learnings and achievements of the group.

By combining the power of action learning with a structured GRR approach and skilled facilitation, we can create a rich and immersive learning experience that enables leaders to develop their Systems Thinking skills and apply them to real-world challenges in a supportive and collaborative environment. This approach has the potential to not only solve specific problems, but also to create a culture of continuous learning and improvement that can drive broader organizational transformation over time.

CONTINUE with the development of the rest of this project with summaries of purposes, intents and program learning outcomes for different levels of learning with clear gates between the different levels, using the Blooms taxonomy structure. Make explicit connections to student skill levels and where they are likely to be in the organizational life cycle and hierarchy in a large professional organization like the Army as your baseline reference

Continuing with the development of this project, we will now outline the purposes, intents, and program learning outcomes for different levels of learning, using Bloom's taxonomy as a framework and considering the skill levels and organizational positions of learners within a large professional organization like the Army.

- 1. Foundational Level (Enlisted Ranks and Junior Officers) Purpose: To introduce Systems Thinking concepts and principles, and to develop basic skills in applying them to real-world problems. Intent: Learners will gain a foundational understanding of Systems Thinking and its relevance to their work, and will be able to apply basic tools and techniques to analyze and solve problems within their immediate scope of responsibility. Program Learning Outcomes (Aligned with Bloom's Taxonomy):
- Remember: Define key Systems Thinking concepts and principles. <u>Bloom's Taxonomy is used by educators to set learning objectives.</u>
- Understand: Explain the relevance and application of Systems Thinking to their work context.
- Apply: Use basic Systems Thinking tools and techniques to analyze and solve problems within their immediate scope of responsibility.
- 2. Intermediate Level (Mid-Grade Officers and Senior Non-Commissioned Officers) Purpose: To deepen understanding of Systems Thinking and to develop advanced skills in applying it to more complex and strategic problems. Intent: Learners will gain a more sophisticated understanding of Systems Thinking principles and tools, and will be able to apply them to analyze and solve problems that span multiple functions and levels within the organization. Program Learning Outcomes (Aligned with Bloom's Taxonomy):
- Analyze: Break down complex problems into their component parts and identify key variables and relationships using Systems Thinking tools and techniques.
- Evaluate: Assess the effectiveness of potential interventions and solutions using Systems Thinking principles and criteria.

- Create: Develop and implement innovative solutions to complex problems using Systems Thinking approaches.
- 3. Advanced Level (Senior Officers and Executives) Purpose: To develop mastery of Systems Thinking and to apply it to drive strategic change and organizational transformation. Intent: Learners will gain a deep and nuanced understanding of Systems Thinking principles and tools, and will be able to apply them to analyze and solve the most complex and strategic challenges facing the organization. Program Learning Outcomes (Aligned with Bloom's Taxonomy):
- Create: Design and lead large-scale Systems Thinking interventions that drive strategic change and organizational transformation.
- Evaluate: Assess the impact and effectiveness of Systems Thinking interventions and initiatives, and make data-driven decisions to optimize outcomes.
- Analyze: Conduct advanced Systems Thinking analyses that span multiple domains and stakeholder groups, and that consider the long-term implications and unintended consequences of actions.

At each level, there will be clear gates and criteria for progression, based on the demonstration of mastery of the program learning outcomes and the application of Systems Thinking skills to real-world problems and challenges.

For example, to progress from the Foundational to the Intermediate level, learners may need to complete a capstone project that demonstrates their ability to apply Systems Thinking tools and techniques to analyze and solve a problem within their immediate scope of responsibility, and to communicate their findings and recommendations effectively to others.

To progress from the Intermediate to the Advanced level, learners may need to complete a more complex and strategic project that spans multiple functions and levels within the organization, and that requires them to design and implement a Systems Thinking intervention that drives measurable change and improvement.

Throughout the program, learners will receive ongoing support and guidance from skilled facilitators and mentors, who will help them to make connections between their learning and their real-world work experiences, and to apply Systems Thinking principles and tools in increasingly sophisticated and impactful ways.

By aligning the program learning outcomes with Bloom's taxonomy and the skill levels and organizational positions of learners within the Army, we can create a comprehensive and structured learning experience that enables individuals at all levels to develop their

Systems Thinking skills and to a within their organizations.	apply them to drive meaningful change and improvement

CONTINUE to explore this set of concepts with advice for the design and delivery of these programs and give some thought to how to develop faculty that are competent in the delivery and administration of this approach to learning Systems Thinking

To effectively design and deliver these Systems Thinking programs, it is essential to create a comprehensive and integrated approach that encompasses curriculum development, instructional design, faculty development, and program evaluation and improvement. Here are some key considerations and recommendations for each of these areas:

- 1. Curriculum Development:
- Align curriculum with program learning outcomes and Bloom's taxonomy, ensuring that content and activities support the development of Systems Thinking skills at each level.
- Use a modular and flexible curriculum design that allows for customization based on learner needs and organizational contexts.
- Incorporate real-world case studies, simulations, and experiential learning activities that enable learners to apply Systems Thinking principles and tools to authentic problems and challenges.
- Develop a comprehensive assessment strategy that includes both formative and summative assessments, and that enables learners to demonstrate their mastery of Systems Thinking skills and knowledge.
- 2. Instructional Design:
- Use a blended learning approach that combines face-to-face instruction, online learning, and self-directed study to provide learners with flexibility and choice in their learning journey.
- Incorporate collaborative and team-based learning activities that enable learners to work together to analyze and solve complex problems using Systems Thinking approaches.
- Use a variety of instructional methods, including lectures, discussions, case studies, simulations, and hands-on activities, to engage learners and support different learning styles.
- Provide learners with ongoing feedback and support, using both human and technological resources, to help them progress through the program and achieve their learning goals.

- 3. Faculty Development:
- Recruit and select faculty who have both subject matter expertise in Systems Thinking and strong facilitation and coaching skills.
- Provide faculty with comprehensive training and development opportunities that enable them to effectively deliver the Systems Thinking curriculum and support learner success.
- Develop a faculty mentoring and coaching program that pairs experienced Systems
  Thinking practitioners with new faculty to provide ongoing support and guidance.
- Encourage faculty to engage in their own Systems Thinking research and practice, and to share their insights and experiences with learners and colleagues.
- Foster a collaborative and supportive faculty culture that values ongoing learning, experimentation, and continuous improvement.
- 4. Program Evaluation and Improvement:
- Develop a comprehensive program evaluation plan that includes both formative and summative evaluations, and that assesses program effectiveness, learner outcomes, and organizational impact.
- Use a variety of evaluation methods, including surveys, interviews, focus groups, and data analytics, to gather feedback and insights from learners, faculty, and organizational stakeholders.
- Use evaluation data to inform program improvements and adaptations, and to ensure that the program remains relevant and effective over time.
- Develop a continuous improvement process that enables the program to adapt and evolve in response to changing learner needs, organizational priorities, and external factors.
- Communicate program outcomes and impacts to key stakeholders, including learners, faculty, organizational leaders, and external partners, to build support and momentum for the program.

By taking a comprehensive and integrated approach to program design and delivery, and by investing in faculty development and continuous improvement, organizations can create Systems Thinking programs that are effective, engaging, and transformative for learners at all levels.

To develop faculty who are competent in the delivery and administration of this approach to learning Systems Thinking, organizations should consider the following strategies:

- 1. Recruit and select faculty who have a strong foundation in Systems Thinking principles and tools, as well as experience in applying them to real-world problems and challenges. This may include individuals with backgrounds in systems engineering, organizational development, or complex adaptive systems.
- Provide faculty with comprehensive training and development opportunities that
  enable them to effectively deliver the Systems Thinking curriculum and support
  learner success. This may include workshops, courses, and certifications in
  Systems Thinking, as well as training in facilitation, coaching, and instructional
  design.
- 3. Develop a faculty mentoring and coaching program that pairs experienced Systems Thinking practitioners with new faculty to provide ongoing support and guidance. This can help new faculty to develop their skills and confidence in delivering the Systems Thinking curriculum, and to navigate the challenges and opportunities of working with diverse learners and organizational contexts.
- 4. Encourage faculty to engage in their own Systems Thinking research and practice, and to share their insights and experiences with learners and colleagues. This can help to create a culture of continuous learning and improvement within the program, and to ensure that the curriculum remains relevant and up-to-date with the latest developments in the field.
- 5. Foster a collaborative and supportive faculty culture that values ongoing learning, experimentation, and continuous improvement. This may involve creating opportunities for faculty to work together on curriculum development, instructional design, and program evaluation, as well as providing resources and support for faculty to pursue their own professional development goals.
- 6. Provide faculty with access to a range of tools and resources that can support their teaching and learning, such as software for systems modeling and simulation, case studies and real-world examples, and online communities of practice for Systems Thinking educators and practitioners.
- 7. Recognize and reward faculty who demonstrate excellence in teaching and learning Systems Thinking, and who make significant contributions to the program and to the field as a whole. This can help to attract and retain top talent, and to create a culture of excellence and innovation within the program.

By investing in faculty development and creating a supportive and collaborative culture, organizations can ensure that their Systems Thinking programs are delivered by skilled and knowledgeable educators who are committed to learner success and organizational impact.

assess the suggestion to create a year long elective program as a pilot program that would feature 4 faculty members being certified as instructors and 12 students who would be certified as systems thinking users which could apply multi echelon training by organizing them into teams of 4, with a n instructor and 3 students in a work group, with 4 work groups in the pilot who could meet monthly throughout the course of the regular year and achieve certification in systems thinking while attending to their other academic requirements. the program would probably require 1 month session of formal instructions for the month ahead with a project or task, a progress check in two weeks later, and a final or interim report at the end of the month which brings that phase to a close and allows for the start of the next monthly module

Creating a year-long elective program as a pilot for Systems Thinking certification is a promising approach that aligns with best practices in adult learning and professional development. The proposed structure of the program, featuring four faculty members as certified instructors and 12 students as certified users, organized into multi-echelon teams of four (one instructor and three students per work group), offers several benefits and opportunities for effective learning and application of Systems Thinking principles and tools.

# Advantages of the proposed program structure:

- 1. Multi-echelon training: Organizing participants into teams of four, with an instructor and three students in each work group, allows for a multi-echelon training approach. This structure facilitates collaborative learning, peer support, and the exchange of diverse perspectives and experiences among participants at different levels of expertise and responsibility. Multi-echelon training is a proven approach that enhances learning outcomes and transfer of skills to real-world contexts.
- 2. Monthly modules with structured activities: The proposed monthly schedule, consisting of a formal instruction session, a mid-month progress check, and a final or interim report, provides a clear structure and pace for the program. This approach allows participants to focus on specific topics and skills each month, while also providing opportunities for ongoing feedback, reflection, and application of learning. Modular and structured learning programs are effective in supporting adult learners' needs for flexibility, relevance, and practicality.
- 3. Certification for instructors and users: Offering certification for both instructors and users of Systems Thinking is a valuable way to recognize and validate participants' skills and knowledge. Certification can enhance participants' credibility and marketability, and can also help to build a community of practice around Systems

Thinking within the organization. Certification programs are increasingly recognized as important tools for professional development and workforce readiness in many fields, including acquisition and logistics.

### Challenges and considerations:

- Balancing workload and other academic requirements: Participants in the program, particularly students, may face challenges in balancing the workload and time commitments of the Systems Thinking certification with their other academic requirements. It will be important to design the program in a way that is feasible and sustainable for participants, and to provide appropriate support and accommodations as needed.
- Ensuring relevance and applicability: To maintain participants' engagement and
  motivation, it will be crucial to ensure that the program content and activities are
  relevant and applicable to their real-world contexts and challenges. This may
  require ongoing needs assessment, customization of content, and flexibility in
  program delivery.
- 3. Evaluating and improving the program: As a pilot program, it will be important to build in mechanisms for ongoing evaluation and improvement. This may include collecting feedback from participants, assessing learning outcomes and impacts, and making iterative adjustments to the program design and delivery as needed.

Overall, the proposed year-long elective program for Systems Thinking certification offers a promising approach for developing faculty and student expertise in this important field. By leveraging multi-echelon training, structured monthly modules, and certification opportunities, the program has the potential to deliver effective and impactful learning experiences that can benefit individuals and the organization as a whole. However, careful attention to program design, implementation, and evaluation will be necessary to ensure its success and sustainability over time.

CONTINUE this project line of thinking and design to explicitly incorporate the principles, standards and structure of the Kilpatrick model for programmatic assessment and show how it could be applied across a set of organizational courses for systems thinking. Include a workable set of top level Program Learning Outcomes as guides/principles that could govern the development of individual courses and lessons under that umbrella

Incorporating the principles, standards, and structure of the Kirkpatrick Model for programmatic assessment into the design of a set of organizational courses for Systems Thinking can help to ensure that the program is effective, impactful, and aligned with organizational goals and priorities. The Kirkpatrick Model provides a comprehensive framework for evaluating the effectiveness of training and development programs at four levels: Reaction, Learning, Behavior, and Results.

Here's how the Kirkpatrick Model could be applied to the proposed Systems Thinking certification program:

- Reaction: At this level, the program should assess participants' initial reactions to
  the training, including their satisfaction with the content, delivery, and relevance of
  the program. This can be done through surveys, feedback forms, or discussions with
  participants. The program should aim to achieve high levels of participant
  satisfaction and engagement, as this can impact their motivation and learning.
- 2. Learning: At this level, the program should assess participants' acquisition of new knowledge, skills, and attitudes related to Systems Thinking. This can be done through assessments, quizzes, or practical exercises that measure participants' understanding and application of key concepts and tools. The program should aim to achieve significant gains in participants' knowledge and skills, as demonstrated through improved scores on assessments or successful completion of practical exercises.
- 3. Behavior: At this level, the program should assess participants' ability to apply their learning to real-world contexts and challenges. This can be done through observations, simulations, or projects that require participants to use Systems Thinking tools and approaches to analyze and solve complex problems. The program should aim to see significant changes in participants' behavior and decision-making, as evidenced by their ability to effectively apply Systems Thinking in their work.
- 4. Results: At this level, the program should assess the impact of participants' learning and behavior change on organizational outcomes and goals. This can be done

through metrics such as improved project outcomes, reduced costs or risks, or increased innovation and agility. The program should aim to demonstrate a clear link between participants' learning and tangible benefits for the organization, such as improved performance, efficiency, or competitiveness.

To guide the development of individual courses and lessons within the Systems Thinking certification program, a set of top-level Program Learning Outcomes (PLOs) can be established. These PLOs should reflect the key knowledge, skills, and attitudes that participants are expected to develop through the program, and should be aligned with the Kirkpatrick Model levels of evaluation.

Here are some examples of PLOs that could govern the development of courses and lessons in the Systems Thinking certification program:

- 1. Participants will demonstrate a deep understanding of the core principles, tools, and methods of Systems Thinking, including systems mapping, causal loop diagrams, stock and flow diagrams, and systemic problem-solving approaches.
- 2. Participants will apply Systems Thinking approaches to analyze and solve complex, real-world problems relevant to their work or domain, and will demonstrate the ability to identify key system elements, interactions, and leverage points for change.
- 3. Participants will collaborate effectively in multi-disciplinary teams to develop and implement systemic solutions to organizational challenges, and will demonstrate strong communication, facilitation, and leadership skills in the process.
- 4. Participants will critically evaluate the effectiveness and impact of Systems Thinking interventions and solutions, using appropriate metrics and evaluation frameworks, and will continuously improve their practice based on feedback and learning.
- 5. Participants will champion the use of Systems Thinking approaches within their organizations or communities, and will actively contribute to building a culture of systems awareness, collaboration, and innovation.

By aligning the program structure, content, and evaluation with the Kirkpatrick Model and a set of clear PLOs, the Systems Thinking certification program can provide a robust and impactful learning experience for participants, while also delivering tangible benefits for the organization. The program can be designed to support participants' progression through the four levels of evaluation, from initial reaction and learning, to behavior change and organizational impact. Regular assessment and feedback loops, as well as opportunities for reflection and continuous improvement, can help to ensure that the

program remains relevant, effective, and responsive to participant and organizational needs over time.		

CONTINUE by making a recommendation for a set of resources that can be used to systematically and consistently support all the instruction across all levels of the organization in order to get the benefit of clear and consistent doctrine, language, models and tools. Explore the pro's and cons of partnering with the Waters Center for Systems Thinking in this program as opposed to an ad-hoc, possibly incomplete or inconsistent approach. Also compare the Waters Center certification approach to that of other recognized certification granting organizations in the systems thinking ecosystem as alternatives

To ensure a clear, consistent, and effective approach to Systems Thinking instruction across all levels of the organization, it is recommended to adopt a set of high-quality, well-established resources that can serve as the foundation for the program's curriculum and learning activities. Partnering with a recognized leader in the field, such as the Waters Center for Systems Thinking, can provide several advantages over an ad-hoc or internally developed approach.

Advantages of partnering with the Waters Center for Systems Thinking:

- Proven expertise and track record: The Waters Center has a long-standing reputation as a pioneer and leader in Systems Thinking education and training. They have developed a comprehensive set of resources, tools, and methodologies that have been tested and refined over many years, and have been used by educators, organizations, and communities around the world.
- 2. Comprehensive and coherent curriculum: The Waters Center offers a well-structured and coherent curriculum that covers the full range of Systems Thinking concepts, tools, and applications. Their resources, such as the "Habits of a Systems Thinker" and "The Iceberg Model," provide a clear and accessible framework for learning and applying Systems Thinking principles. The Waters Center's resources and tools are widely recognized and used in the field, and have been shown to be effective in supporting Systems Thinking education and practice.
- 3. Certification and credibility: The Waters Center offers a recognized certification program for Systems Thinking practitioners, which can provide added value and credibility for participants in the organization's program. Certification can serve as a signal of expertise and commitment to Systems Thinking, and can help to build a community of practice within the organization and beyond.
- 4. Ongoing support and updates: Partnering with the Waters Center can provide access to ongoing support, resources, and updates as the field of Systems Thinking

evolves. This can help to ensure that the organization's program remains current, relevant, and aligned with best practices in the field.

Disadvantages of an ad-hoc or internally developed approach:

- Lack of coherence and consistency: An ad-hoc or internally developed approach
  may result in a fragmented or inconsistent curriculum, with different instructors or
  teams using different frameworks, terminologies, or tools. This can create confusion
  for learners and limit the effectiveness of the program in building a shared
  understanding and practice of Systems Thinking across the organization.
- 2. Limited expertise and resources: Developing a comprehensive Systems Thinking curriculum and set of resources internally may require significant time, effort, and expertise that may not be readily available within the organization. This can result in an incomplete or lower-quality program that does not fully meet the needs of learners or the organization.
- 3. Lack of external validation and credibility: An internally developed program may not have the same level of external validation and credibility as a program that is based on recognized standards and certifications in the field. This can limit the value and impact of the program for participants and the organization as a whole.

#### Comparison of certification approaches:

While the Waters Center is a well-established and widely recognized leader in Systems Thinking education and certification, there are other organizations that offer certification programs in this field. Some examples include:

- 1. The Systems Thinking World Institute: Offers a "Certified Systems Thinker" program that includes online courses, workshops, and a capstone project.
- The Society for Organizational Learning (SoL): Offers a "Systems Thinking and Dynamic Modeling" certificate program that includes online courses and a practical application project.
- 3. The International Council on Systems Engineering (INCOSE): Offers a "Systems Engineering Professional" certification that includes a focus on Systems Thinking principles and practices.

Each of these organizations has its own approach to certification, with different emphases, requirements, and recognition levels. In evaluating potential partners or certification providers for the organization's Systems Thinking program, it will be important to consider factors such as:

- Alignment with the organization's goals, culture, and values
- Comprehensiveness and quality of the curriculum and resources
- Recognition and credibility of the certification in the relevant fields or industries
- Cost and accessibility of the program for participants
- Opportunities for ongoing support, collaboration, and networking

Based on these factors, the Waters Center for Systems Thinking appears to be a strong potential partner for the organization's program, given its proven expertise, comprehensive curriculum, and recognized certification. However, it may be worth exploring other options as well to ensure that the chosen approach best meets the needs and goals of the organization and its learners.

Ultimately, the key to a successful Systems Thinking education and certification program will be to adopt a clear, consistent, and well-supported approach that enables participants to develop deep understanding, practical skills, and meaningful impact in their work and communities. By partnering with a recognized leader in the field and leveraging high-quality resources and certifications, the organization can create a powerful and transformative learning experience that delivers lasting value for individuals and the organization as a whole.

please do a deeper dive and perform a detailed compare and contrast between the waters center for systems thinking program and each of the 3 programs you just listed, with a view towards a training audience of mid-level Army officers for suitability and alignment

To determine the most suitable Systems Thinking certification program for mid-level Army officers, it's important to compare and contrast the Waters Center for Systems Thinking program with the three other programs mentioned: The Systems Thinking World Institute, The Society for Organizational Learning (SoL), and The International Council on Systems Engineering (INCOSE).

### 1. Waters Center for Systems Thinking:

- Curriculum: The Waters Center offers a comprehensive curriculum that
  covers the fundamental principles and tools of Systems Thinking, such as
  the "Habits of a Systems Thinker" and "The Iceberg Model." Their approach is
  focused on practical application and is designed to be accessible to learners
  from diverse backgrounds.
- Alignment with Army needs: The Waters Center's emphasis on developing systemic problem-solving skills and fostering a culture of collaboration and innovation aligns well with the Army's need for adaptive, strategic leaders who can navigate complex challenges. However, the curriculum may need to be tailored to include more military-specific examples and case studies.
- Certification: The Waters Center offers a recognized certification program
  that can provide credibility and value for Army officers. The certification
  process includes online courses, workshops, and a capstone project, which
  can be completed alongside regular duties.

#### 2. The Systems Thinking World Institute:

- Curriculum: The Systems Thinking World Institute offers a "Certified Systems
  Thinker" program that covers Systems Thinking principles and tools, as well
  as specific applications such as organizational change and sustainability.
  The curriculum is delivered through online courses and workshops.
- Alignment with Army needs: The program's focus on organizational change and sustainability may be relevant to some Army contexts, but may not be as directly applicable as the Waters Center's more general approach. The online delivery format may be convenient for Army officers, but may lack the depth and interactivity of in-person workshops.

 Certification: The "Certified Systems Thinker" designation may not have the same level of recognition or credibility within the Army as the Waters Center's certification.

# 3. The Society for Organizational Learning (SoL):

- Curriculum: SoL's "Systems Thinking and Dynamic Modeling" certificate program focuses on using Systems Thinking tools to analyze and improve organizational performance. The curriculum includes online courses and a practical application project.
- Alignment with Army needs: The emphasis on organizational performance may be relevant to some Army leadership roles, but the narrow focus on dynamic modeling may limit the program's overall applicability. The online format may be convenient, but may not provide the same level of engagement as in-person workshops.
- Certification: SoL's certificate program is recognized within the organizational learning field, but may not have the same level of recognition or credibility within the Army as the Waters Center's certification.

## 4. The International Council on Systems Engineering (INCOSE):

- Curriculum: INCOSE's "Systems Engineering Professional" certification includes a focus on Systems Thinking principles and practices, as well as other aspects of systems engineering such as requirements management and system design. The curriculum is based on a comprehensive body of knowledge and includes a mix of online and in-person learning opportunities.
- Alignment with Army needs: The emphasis on systems engineering may be highly relevant to some Army technical roles, but may be less directly applicable to leadership and management positions. The comprehensive curriculum may provide a strong foundation, but may also require a significant time investment.
- Certification: INCOSE's certification is widely recognized and valued within the systems engineering field, and may provide strong credibility for Army officers in technical roles. However, it may be less relevant for officers in non-technical leadership positions.

Based on this comparison, the Waters Center for Systems Thinking program appears to be the most suitable and aligned option for mid-level Army officers. Its comprehensive curriculum, emphasis on practical application, and recognized certification can provide a strong foundation for developing Systems Thinking skills and mindsets that are relevant across a range of Army leadership roles. The focus on collaboration, innovation, and problem-solving aligns well with the Army's needs for adaptive, strategic leaders. The Waters Center's approach of encouraging learners to apply Systems Thinking principles to real-world challenges in their work and communities can enable officers to develop practical skills and make immediate impacts in their roles.

However, to fully optimize the Waters Center's program for Army officers, it may be beneficial to work with the Waters Center to tailor the curriculum and include more military-specific examples, case studies, and applications. This could include exploring Systems Thinking approaches to challenges such as strategic planning, resource allocation, and cross-functional collaboration in Army contexts.

Additionally, it may be valuable to complement the Waters Center's program with other learning opportunities that are specific to Army leadership and management, such as courses focused on systems engineering or strategic leadership competencies. This could provide officers with a more comprehensive and integrated understanding of how Systems Thinking principles and tools can be applied in their specific roles and contexts.

Overall, partnering with the Waters Center for Systems Thinking and tailoring their program to the needs and goals of mid-level Army officers appears to be a promising approach for developing critical Systems Thinking skills and mindsets that can enhance leadership effectiveness and organizational performance. By combining a proven, comprehensive curriculum with Army-specific applications and complementary learning opportunities, this approach can provide officers with a powerful set of tools and frameworks for navigating complexity, driving innovation, and achieving strategic objectives.

CONTINUE with your in depth analysis of this topic area. Include a review of the materials issues insights concepts and recommendations of our discussion so far and outline some possibilities for our next set of inquiries, This will let you explore the problem, opportunity, potential and solution space to identify other areas of interesting inquiry. What other clarifying questions are suggested by a review of what we have done so far as a way to continue to explore this area? Keep all of these insights in mind and create an avatar or agent named My Educational Advisor who will have access all the time to these dialogues at all times as a start point for any additional lines of inquiry. What kinds of questions would you expect an skeptical but optimistic and interested senior executive to ask concerning the proposed programs we have outlined here in order to perform their mission of safeguarding the organization against 2d and 3rd order risks while positioning the organization for strategic success by investing in high payoff opportunities that have manageable risk. Create an agent or avatar named My Executive Council to represent that senior executive level of leadership and responsibility and infuse it with deep thoughtful and reflective critical thinking that helps us uncover problems or opportunities early enough to prevent disasters while seizing opportunities for great success.

Thank you for the detailed instructions. Let me summarize the key points and insights from our discussion so far, and then explore some possibilities for further inquiry and analysis.

#### Summary of Key Insights and Recommendations:

- The Waters Center for Systems Thinking program appears to be the most suitable and aligned option for mid-level Army officers, based on its comprehensive curriculum, practical application focus, and recognized certification.
- 2. Tailoring the Waters Center's curriculum to include more military-specific examples, case studies, and applications could optimize the program's relevance and impact for Army officers.
- Complementing the Waters Center's program with other learning opportunities
  specific to Army leadership and management, such as systems engineering or
  strategic leadership courses, could provide officers with a more comprehensive
  understanding of how Systems Thinking principles can be applied in their roles and
  contexts.

# Possibilities for Further Inquiry:

1. Explore the potential for collaboration between the Waters Center and the Army to develop a customized Systems Thinking program that incorporates military-specific content and applications.

- 2. Investigate the feasibility and benefits of integrating Systems Thinking training into existing Army leadership development programs, rather than offering it as a standalone certification.
- Examine case studies of successful Systems Thinking applications in military or government contexts to identify best practices and lessons learned that could inform the design and implementation of a Systems Thinking program for Army officers.
- 4. Assess the potential long-term impacts and ROI of investing in Systems Thinking training for Army officers, in terms of improved decision-making, problem-solving, and organizational performance.
- 5. Consider the optimal timing and format for delivering Systems Thinking training to Army officers, based on their career stages, learning preferences, and operational demands.

### Clarifying Questions:

- 1. What specific challenges or opportunities in the Army's current operating environment could be effectively addressed by applying Systems Thinking principles and tools?
- 2. How can Systems Thinking training be designed to complement and reinforce other core leadership competencies and values emphasized in Army officer development programs?
- 3. What metrics or indicators could be used to assess the effectiveness and impact of Systems Thinking training on individual officers' performance and overall organizational outcomes?
- 4. How can the Army ensure ongoing support, resources, and opportunities for officers to apply and deepen their Systems Thinking skills beyond the initial training program?
- 5. What potential barriers or resistance might be encountered in implementing a Systems Thinking training program for Army officers, and how could these be proactively addressed?

My Educational Advisor: As your Educational Advisor, I will keep track of all our discussions and insights related to this topic area. Building on the summary and possibilities outlined above, I suggest we prioritize exploring the following areas:

- 1. Identifying specific use cases and applications of Systems Thinking in Army contexts, to ensure the training program is highly relevant and impactful.
- 2. Developing a proposed curriculum and delivery format for a customized Systems Thinking program for Army officers, in collaboration with the Waters Center or other relevant partners.
- 3. Crafting a business case and implementation plan for integrating Systems Thinking training into the Army's leadership development strategy, including resource requirements, timeline, and success metrics.

I will continue to provide guidance and support as we delve deeper into these areas and refine our recommendations.

My Executive Council: As a senior executive responsible for safeguarding the organization against risks while positioning it for strategic success, I would raise the following questions and concerns regarding the proposed Systems Thinking training program for Army officers:

- 1. How does this training program align with and support the Army's overall strategic priorities and objectives? What specific benefits and outcomes can we expect to see as a result of this investment?
- 2. What are the potential risks or unintended consequences of introducing Systems Thinking concepts and tools into our decision-making and problem-solving processes? How can we mitigate these risks?
- 3. How will this training program be integrated into our existing leadership development framework, and what additional resources or support will be required to ensure its success?
- 4. What evidence or precedents can you provide to demonstrate the effectiveness and ROI of similar Systems Thinking training programs in other military or government organizations?
- 5. How will we measure and track the impact of this training program over time, and what mechanisms will be in place to make adjustments or improvements based on feedback and results?

I recommend that you carefully consider these questions and concerns as you continue to develop and refine your proposal. By proactively addressing potential risks and uncertainties, while clearly articulating the strategic benefits and alignment of this program, you can build a strong case for investing in Systems Thinking training as a high-payoff opportunity for the Army.