

Executive summary



Accelerating Instructional Design for the DoD—A Generative AI Prompt Breakthrough

Executive summary

01. Overview

Accelerating the Instructional Design Process

Lisa Wesley, the owner of Instructional Learning Solutions, played a critical role in helping the Department of Defense's Military Community and Family Policy (MC&FP) team achieve national recognition through the DoD major AI innovation initiative in 2025. By designing and

implementing a reusable generative AI prompt solution, Lisa streamlined the traditionally lengthy Analysis and Design phases of the ADDIE Model—reducing them by an unprecedented 80%.



02. Key findings

The project's most noteworthy findings:

The most noteworthy key findings for the project that assisted the Military Community and Family Policy (MC&FP) in winning the DoD's major AI innovation award in 2025 are:

- **Dramatic Efficiency Gain:** The AI-powered reusable prompt framework designed by Lisa reduced the Analysis and Design phases of the ADDIE instructional design model by 80%. This represents a transformative leap in project speed and delivery.
- **AI-Driven Automation for Instructional Design:** Leveraging state-of-the-art large language models (LLMs), Lisa automated complex, repetitive tasks in training program development, including document analysis, requirements gathering, and course blueprint generation.
- **Consistency and Quality Assurance:** The generative AI system provided standardized outputs, ensuring instructional materials consistently adhered to DoD best practices and regulatory standards—minimizing errors and variations between projects.
- **Scalability and Reusability:** The architecture of the AI prompt solution enabled rapid adaptation to new projects and seamless onboarding of additional teams within MC&FP, underscoring its potential for widespread impact across other divisions.
- **Strategic Alignment with DoD AI Initiatives:** This project exemplified the DoD's broader push to integrate advanced AI into critical workflows, aligning MC&FP with strategic

priorities recognized in the 2025 DoD AI innovation initiative, which awarded contracts to major AI providers for similar transformative efforts.

- **Recognition and Benchmarking:** The approach was highlighted within the DoD's AI innovation award campaign as a leading example of operational excellence in applying generative AI to government instructional workflows.

These findings collectively demonstrate how targeted AI automation can deliver rapid, scalable, and high-quality outcomes for complex government instructional systems, setting a new benchmark for modernizing public-sector training.

03. Solutions

The solutions included:

- Designing AI prompts that incorporate essential instructional design context, role-specific needs, and clear output formatting.
- Leveraging large language model (LLM) capabilities to perform document analysis, stakeholder needs assessment, and drafting of design blueprints.
- Ensuring compliance with DoD regulations and quality standards through iterative refinement of prompts.
- Creating a scalable, reusable prompt architecture that enabled rapid adaptation across multiple projects and teams.

This approach streamlined the development process, enhanced consistency and quality in instructional content, and aligned MC&FP with DoD's 2025 AI innovation goals, directly contributing to their recognition in the DoD major AI innovation award



04. Impact

The impact included:

The ***transformation and acceleration of key instructional design phases through targeted generative AI automation*** sets a new benchmark for operational excellence in government AI adoption and instructional development. This outcome is closely aligned with DoD's strategic priorities in AI innovation and workforce modernization.

Introduction & recommendations

Introduction

01. Background

Context of the project

The project's background context involves supporting the Department of Defense's Military Community and Family Policy (MC&FP) directorate, which focuses on enhancing the quality of life and readiness for service members, their families, and survivors through comprehensive policies and programs. MC&FP manages critical initiatives, including Military OneSource, which provides 24/7 confidential counseling and support services nationwide and overseas, and Military and Family Life Counseling (MFLC), which deploys thousands of counselors to military installations globally. The goal of these programs is to strengthen military and family readiness, offering assistance in various areas, including deployment support, education, parenting, and wellness resources.

Historically, MC&FP's training and instructional programs, vital for equipping military support providers and their families with the necessary skills and knowledge, have faced challenges due to the lengthy timelines of instructional design phases, particularly the Analysis and Design stages defined by the ADDIE model. These phases are crucial for understanding learner needs and designing effective content, but often cause delays in program development and deployment.

Recognizing the Department of Defense's strategic priority to integrate cutting-edge AI technology into operational workflows, as highlighted by the 2025 DoD AI innovation awards led by the Chief Digital and Artificial Intelligence Office, MC&FP sought innovative solutions to modernize and accelerate its instructional design processes. The project addressed this need by developing a reusable generative AI prompt framework tailored explicitly to MC&FP's unique instructional challenges and compliance requirements. This AI-driven solution automates complex, repetitive tasks within the Analysis and Design phases, resulting in an 80% reduction in cycle time, while improving consistency and quality, and supporting scalable deployment across multiple learning programs.

This partnership between Lisa Wesley and MC&FP exemplifies a high-impact application of generative AI in government instructional design, aligning with wider Department of Defense efforts to harness artificial intelligence for mission-critical advancements and ultimately contributing to MC&FP's recognition under the 2025 DoD major AI innovation initiative.

02. Objectives

Goals for the case study included:

1. To modernize and accelerate the instructional design process within MC&FP by integrating generative AI technology.
2. To significantly reduce the time required for the Analysis and Design phases of the ADDIE model, thereby enabling faster program deployment.
3. To achieve improved consistency, quality, and compliance in military instructional content development.
4. To demonstrate a scalable, reusable AI-driven solution aligned with the Department of Defense's strategic AI innovation initiatives.
5. To contribute directly to MC&FP's recognition and success in the 2025 DoD major AI innovation award.

Objectives for the case study included:

1. Develop a reusable generative AI prompt framework customized to MC&FP's instructional design context and compliance requirements.
2. Automate complex, repetitive tasks such as document analysis, stakeholder needs assessment, and course blueprint creation within the Analysis and Design phases.
3. Reduce the cycle time for Analysis and Design phases by at least 80%, achieving a validated reduction of 80%.
4. Ensure that the AI-generated outputs meet DoD regulatory standards and best instructional practices.
5. Enable rapid adaptation and scaling of the AI solution across multiple MC&FP learning programs and teams.
6. Facilitate knowledge transfer and onboarding through documentation and training on the effective use of the AI prompt framework.

03. Problem

What motivated the project?

The Department of Defense's Military Community and Family Policy (MC&FP) faced significant challenges in developing and deploying instructional programs critical to supporting military service members and their families. Specifically, the Analysis and Design phases of the ADDIE instructional design model were time-consuming and labor-intensive for program managers and project sponsors, often resulting in lengthy delays in rolling out updated or new training content.

These delays hindered MC&FP's ability to rapidly respond to evolving operational requirements and the dynamic needs of military families, limiting the effectiveness and timeliness of critical

support programs. Additionally, the manual nature of these phases introduced inconsistencies and increased the risk of quality and regulatory compliance variances across instructional materials.

With the Department of Defense emphasizing the integration of advanced artificial intelligence technologies to enhance operational efficiency—evidenced by the strategic 2025 DoD AI innovation initiatives—MC&FP identified an urgent need to modernize and accelerate its instructional design processes. The challenge was to find a solution that could dramatically reduce cycle times, ensure quality and compliance, and remain scalable across various programs, all while aligning with stringent DoD standards and security requirements. This environment and these specific pain points motivated collaboration with Lisa Wesley to develop and implement an innovative, generative AI-powered solution aimed at transforming the Analysis and Design phases, enabling MC&FP to fulfill its mission more effectively.

Recommendations

To address the challenges faced by MC&FP in their instructional design process and to meet the project's goals, the following solutions and strategies were proposed and implemented:

1. Develop a Reusable Generative AI Prompt Framework
 - Design and tailor AI prompts specifically for the instructional design context of MC&FP.
 - Incorporate role-specific knowledge, compliance guidelines, and contextual parameters to ensure relevant and accurate output.
 - Structure prompts to support automation of detailed tasks within the Analysis and Design phases of the ADDIE model.
2. Leverage Large Language Models (LLMs) for Automation
 - Utilize state-of-the-art LLMs to automate complex and repetitive tasks such as:
 - Document and content analysis to identify learner needs and requirements.
 - Stakeholder needs assessment synthesis.
 - Preliminary course design and blueprint generation.
 - Ensure AI outputs undergo iterative refinement and validation to meet DoD standards.
3. Ensure Compliance and Quality Control
 - Implement rigorous prompt engineering and review cycles to align AI-generated materials with DoD regulatory standards and instructional best practices.
 - Embed quality assurance checks within the AI workflow to minimize errors and inconsistencies.
4. Adopt a Scalable and Modular Solution Architecture
 - Create a modular prompt framework that is reusable and adaptable across multiple projects and teams within MC&FP.

- Facilitate easy onboarding and rapid scaling to support future expansion of instructional programs.
5. Implement Change Management and Capacity Building
 - Develop comprehensive training and documentation to empower MC&FP staff to utilize and adapt the AI prompt system effectively.
 - Establish feedback loops to continuously improve the AI framework based on user experience and evolving requirements.
 6. Align with Strategic DoD AI Innovation Initiatives
 - Ensure the AI solution supports DoD’s broader vision for AI adoption in operational workflows.
 - Position MC&FP’s instructional modernization efforts as a model for AI-driven innovation within the Department of Defense.

These recommendations collectively targeted the reduction of design cycle times, improvement of quality and compliance, and enablement of scalable modernization aligned with DoD objectives, effectively addressing the key motivations behind the project.

01. Impact of Recommendation

SOLUTION	EFFECTIVENESS	IMPACT
Developed a reusable Generative AI Prompt Framework	Highly effective ▾	Creating a reusable AI prompt framework directly addressed core workflow automation needs by enabling complex, repetitive tasks to be standardized and performed rapidly. The reuseability aspect allowed scale and adaptability across projects, a critical factor in government settings with diverse and evolving training needs. This approach aligns with best practices in AI-driven curriculum design, where custom, context-rich prompts facilitate precision and high-quality outputs.
Leverage Large Language Models (LLM) for Automation	Highly effective ▾	The use of LLMs to automate analysis, stakeholder assessment, and blueprint creation significantly accelerated the traditionally manual and time-consuming tasks in the ADDIE Analysis and Design phases. Automation of these data-intensive and repetitive tasks aligns with documented AI

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		benefits in faster content development cycles and improved learner needs assessment. This recommendation was a major driver of the reported 80% reduction in cycle time.
Ensured Compliance and Quality Control	Moderately effective ▾	Embedding quality assurance and compliance checks was essential to maintain the integrity and regulatory alignment of instructional materials, ensuring outputs met DoD standards. While crucial, this function mainly ensured consistency rather than directly accelerating throughput. This aligns with the understanding that AI supports quality but requires human oversight to meet strict compliance regimes.
Adopt a Scalable and Modular Solution Architecture	Highly effective ▾	A modular, reusable architecture ensured the AI prompt solution was not a one-off tool but a scalable system applicable broadly—supporting rapid deployment across additional MC&FP programs and teams. Scalability is a critical success factor in AI implementations, as it maximizes ROI by enabling quick adaptation to new contexts.
Implement Change Management and Capacity Building	Moderately effective ▾	Training and capacity building ensured the sustainable adoption of AI by equipping staff with the skills to leverage AI tools effectively. Change management is recognized as necessary for successful AI integration, preventing user resistance and fostering continuous improvement. While not directly reducing cycle time, it enabled effective operationalization of the technical solution.
Align with Strategic DoD AI Innovation Initiatives	Marginally effective ▾	Strategic alignment helped position MC&FP within the broader DoD AI innovation context, supporting recognition and funding, but did not directly affect project operational metrics. However, it provided contextual benefit by

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linking technical innovation to institutional priorities and could influence future scalability and support.

Analysis

Analysis



01. Research methods

The data for this case study were gathered through a multi-method research approach to provide a comprehensive and credible understanding of the AI-driven instructional design transformation at MC&FP. This approach ensured both depth and triangulation of findings, consistent with established best practices in case study methodology.

Methods Used to Gather Data:

- Interviews: Semi-structured interviews were conducted with key stakeholders, including MC&FP program managers, instructional designers, and technical leads from Lisa Wesley. These interviews captured firsthand perspectives on challenges, the AI solution development process, implementation experiences, and measurable outcomes.
- Document Analysis: Relevant project artifacts were systematically reviewed, including internal reports, instructional design documentation, AI prompt frameworks, project plans, and the DoD's AI innovation award submission materials. This helped corroborate interview data and provided detailed insight into the technical solution and compliance standards.
- Observations: Direct observations of workflow processes were conducted to understand how generative AI prompts are integrated into the ADDIE model's Analysis and Design phases, identifying specific time savings and workflow improvements.
- Quantitative Data Review: Cycle time measurements before and after AI implementation were analyzed to quantify the 80% reduction in the Analysis and Design phases, providing objective validation of impact.

By employing these diverse data collection methods, the study employed triangulation, enhancing the credibility and reliability of the findings. This mixed-methods approach, combining qualitative and quantitative data collection, enabled a nuanced and holistic understanding of the project's processes, innovations, and outcomes within the complex DoD instructional context.

02. Approaches used

The primary approach used in the project with the Military Community and Family Policy (MC&FP) was based on the ADDIE instructional design model, which stands for Analysis, Design, Development, Implementation, and Evaluation. This framework is a widely accepted, systematic process for creating effective educational and training programs. Specifically:

- Analysis Phase: The project focused on automating and accelerating the Analysis phase, where instructional problems are clarified, learner characteristics are identified, and learning goals and objectives are established. This phase addresses questions such as who the learners are, what skills and knowledge are required, and what constraints exist.
- Design Phase: The solution also targeted the Design phase, which includes developing a blueprint for instructional materials, sequencing content, defining learning objectives, selecting instructional strategies, and creating assessment plans.

The project leveraged a reusable generative AI prompt framework to automate complex and repetitive tasks in these two phases, achieving a dramatic 80% reduction in cycle time. The AI prompts enabled tasks such as document analysis, stakeholder needs assessment, and drafting of course design blueprints to be done more quickly and consistently.

Other frameworks and approaches embedded in the solution included:

- Generative AI and Large Language Models (LLMs): Leveraged to interpret and synthesize instructional content and requirements, automating traditionally manual steps.
- Compliance and Quality Control Processes: Ensured that all AI-generated materials met Department of Defense regulatory standards and instructional best practices.
- Modular and Scalable Solution Architecture: Enabled broad reuse and adaptability across multiple instructional projects within MC&FP.

In summary, the project applied the classic ADDIE instructional design model as the foundational framework, focusing specifically on accelerating the Analysis and Design phases through AI-driven approaches, supported by quality assurance and scalable system design to align with DoD operational and compliance demands.

03. Relevant facts and information

- The Department of Defense's Military Community and Family Policy (MC&FP) focuses on programs that enhance the quality of life and readiness for service members and their families, including critical initiatives such as Military OneSource and Military and Family Life Counseling (MFLC).
- MC&FP has historically experienced lengthy and labor-intensive Analysis and Design phases under the ADDIE instructional design model, resulting in delays in deploying new or updated training programs for military families and support providers.
- Lisa Wesley developed a reusable generative AI prompt framework explicitly tailored for MC&FP's instructional design needs. This framework automated complex, repetitive tasks such as document analysis, stakeholder needs assessment, and course blueprint drafting, particularly in the Analysis and Design phases.
- The AI solution achieved an 80% reduction in cycle time for these phases, representing a significant improvement in efficiency that enabled faster program development and rollout.
- The AI-generated outputs ensured consistency, quality, and compliance with DoD regulatory standards and best instructional practices, thereby minimizing errors and variability.
- The prompt framework was scalable and reusable, allowing rapid adaptation across multiple projects and teams, increasing MC&FP's capacity without proportional increases in resources.
- This AI-driven instructional design modernization directly contributed to MC&FP's recognition in the 2025 DoD major AI innovation initiative, aligning with the Department of Defense's strategic emphasis on leveraging advanced AI technologies to enhance operational effectiveness.
- The project exemplifies how the DoD is integrating generative AI into government instructional workflows to accelerate training delivery while maintaining quality and compliance, supporting military readiness and family support programs.

These facts underscore the significant impact of AI-powered automation in federal instructional design for military community services and DoD innovation priorities.

Conclusion

Conclusion



01. Summary of findings

The collaboration between Lisa Wesley and the Military Community and Family Policy (MC&FP) yielded transformative results by leveraging generative AI to modernize and accelerate the instructional design process. The key findings include:

- **Dramatic Efficiency Improvement:** The reusable generative AI prompt framework developed by Lisa Wesley reduced the time required for the Analysis and Design phases of the ADDIE model by 80%, significantly accelerating content development cycles and enabling faster deployment of critical training programs for military families.
- **Automation of Complex Tasks:** By automating repetitive, data-intensive tasks such as document analysis, stakeholder needs assessment, and instructional blueprint creation, the AI solution improved workflow efficiency while maintaining high levels of accuracy.
- **Improved Consistency and Quality:** The AI-driven process ensured outputs conformed to DoD regulatory standards and instructional best practices, reducing inconsistencies and compliance risks across materials developed for MC&FP programs.
- **Scalability and Reusability:** The modular design of the AI prompt framework allowed rapid adaptation to multiple projects and teams within MC&FP, supporting scalable instructional modernization without requiring proportional increases in human resources.
- **Alignment with DoD Strategic Initiatives:** The project's outcomes aligned closely with the Department of Defense's 2025 AI innovation priorities, exemplifying the strategic

integration of advanced AI technologies to enhance operational efficiency and workforce modernization.

- Operational and Cultural Adoption: Training, documentation, and change management supported sustainable adoption of the AI tools, ensuring that MC&FP staff could effectively utilize and adapt the solution for ongoing and future instructional design efforts.

Overall, the case study demonstrates that targeted use of generative AI in instructional design can deliver substantial time savings, quality improvements, and scalability in a complex, high-stakes government environment. This initiative sets a benchmark for AI-enabled modernization in military and public-sector training programs, ultimately contributing to MC&FP's recognition under the prestigious DoD major AI innovation award.

02. Implications of the study

The successful collaboration between Lisa Wesley and the Military Community and Family Policy (MC&FP) carries significant implications for instructional design, AI adoption within government, and broader Department of Defense (DoD) modernization efforts:

1. Demonstrates Generative AI's Transformative Potential in Government Instructional Design

This study provides compelling evidence that generative AI, when applied thoughtfully, can dramatically accelerate and enhance foundational instructional design processes, such as the Analysis and Design phases of the ADDIE model. The 80% reduction in cycle time establishes a new benchmark for what is achievable, encouraging other government agencies and military programs to explore AI-driven workflow automation to meet evolving operational demands.

2. Establishes a Scalable and Reusable AI Framework for Ongoing Modernization

By developing a reusable, generative AI prompt architecture tailored to DoD instructional needs, this project establishes a replicable model that can be scaled across diverse programs and teams. This scalability points to the potential for AI solutions to multiply impact without proportional increases in resources, a crucial factor for federal programs facing budgetary and personnel constraints.

3. Reinforces the Importance of Quality, Compliance, and Human Oversight in AI Integration

The study underscores that while AI can optimize efficiency, maintaining stringent quality assurance and regulatory compliance demands purposeful process design and human-in-the-loop validation mechanisms. This balance is critical for the DoD and other government entities navigating highly regulated environments where instructional accuracy and policy adherence are paramount.

4. Aligns Operational Innovation With Strategic Defense Priorities

The outcomes directly support the DoD's strategic vision for integrating advanced AI technologies to improve operational readiness and mission effectiveness. This

alignment validates federal investments in AI and encourages further exploration of AI as a force multiplier in other defense-related workflows beyond instructional design.

5. Promotes Change Management and Capacity Building as Essential for Sustainable AI Adoption

The study emphasizes that technical innovation must be complemented by effective training, documentation, and stakeholder engagement to achieve lasting benefits. As agencies invest in AI technologies, this finding emphasizes that workforce readiness and cultural acceptance remain foundational to successful implementation.

6. Enables Faster, More Responsive Support for Military Families and Communities

Ultimately, by accelerating program development cycles, the AI-enhanced instructional design processes empower MC&FP to more swiftly deliver high-quality training and resources that support service members and their families. This improved responsiveness contributes to stronger military readiness and well-being, aligning with the core mission of MC&FP.

In summary, this study exemplifies how targeted generative AI applications can serve as catalysts for transformative improvements in government instructional programs, operational efficiency, and strategic innovation—offering a roadmap for replication and adaptation in other complex public and private-sector domains.

"By leveraging generative AI to automate the Analysis and Design phases of instructional design, we achieved an 80% reduction in cycle time—demonstrating that thoughtful AI integration can transform complex government workflows, delivering faster, higher-quality training to support our military families better."