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Exploring the Use Case of Wargaming Tools Across the Contracting Lifecycle

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Overview

- Research Questions
- Issue
- Approach
- Results
- Recommendations
- Example



Research Questions

RQ1: How can wargaming tools be integrated into contracting lifecycle processes?

RQ2: How can wargaming be utilized as a training and preparedness tool for contracting professionals?



Issue

- Contracting decisions require balancing: speed, fair price, mission needs, risk mitigation, and legal/regulatory compliance in a changing acquisition environment.
- Beyond technical skill, professionals need competencies such as creativity, critical thinking, problem solving, risk management, and strategic thinking (DoD model).
- Current training is PowerPoint-heavy; this study examines wargaming as an active method to develop these professional competencies.



Approach

- Literature Review
 - Contracting
 - Department of Defense (DoD) Contracting Competency Model (DoDCCM)
 - Contract Lifecycle
 - Wargaming
 - Types
 - Development

- Wargame Objectives Across the Contract Life Cycle





Results

- 3 Types of games: Educational, Experiential, Analytical
 - Each with unique development approaches

Phase	Educational	Experiential
Initiate	<ul style="list-style-type: none">• Goal: Build wargame around learning objectives• Form core wargaming team as applicable• Scope problem• Develop learning objectives• Develop Data Collection & Management Plan (DCMP) linked to learning objectives	<ul style="list-style-type: none">• Goal: Build wargame around the intended participant experience• Problem scoping includes identifying tasks (training tasks if doing a training wargame) that the wargame will center around• Form core wargaming team as applicable• Develop Data Collection & Management Plan linked to tasks



Results

- Example of wargaming objectives across the contract life cycle stages

Contract Life Cycle Stage	Wargame Type	Example Objective	Target Audience
Pre-Award	Educational	Apply business acumen to evaluate the impact of market trends, geopolitical issues and Defense objectives to battle test an acquisition plan	Junior to mid-level contracting professionals
	Experiential	Demonstrate the ability to conduct a risk analysis in a contingency environment	Contingency contracting officers
	Analytical	Determine which theater support contract approach, is most effective for a new Area of Operations (AO)	Senior leaders



Recommendations

Phase	Educational	Notional Application
<p>Initiate</p>	<ul style="list-style-type: none"> • Goal: Build wargame around learning objectives • Form core wargaming team as applicable • Scope problem • Develop learning objectives • Develop Data Collection & Management Plan (DCMP) linked to learning objectives 	<ul style="list-style-type: none"> • Goal: Build wargame around learning objectives • Core team consists of faculty member and assistant • Acquisition plans are an important part of the acquisition process, yet limited time is spent testing these strategies to see to what extent they can handle a variety of potential future issues • LO 1: Apply business acumen to evaluate the impact of market trends, geopolitical issues and Defense objectives to battle test an acquisition plan • LO 2: Identify gaps in an acquisition plan and update the plan with appropriate information to fill the gaps • Data collection includes the use of a decision document provided to each team to capture the rationale for each decision, noting any assumptions. Collection also stems from the final deliverable of the revised acquisition plan.
<p>Design</p>	<ul style="list-style-type: none"> • Determine scenario(s) • Select adjudication approach (models, methods, tools) • Determine player roles • Determine wargame data requirements • Iterate with development phase as needed • Pre- and post-wargame assessment 	<ul style="list-style-type: none"> • Main Scenario: The Air Force FLYT office is procuring communications equipment and associated installation/integration services for the STARS Communications Program. A draft acquisition strategy is provided to each team. • Vignettes: Developed from extensive research into market trends, geopolitical issues and Defense objectives with the potential to impact communications equipment and services • Facilitator adjudication method • Contracting Officer for procurement of the STARS requirement. Participants are placed in teams to leverage varying degrees of experience • Participants provided with an acquisition strategy and computer access to the FAR and other pertinent regulations • Iterate with development phase as needed • Pre-award assessment provides insight into each player's level of experience with developing acquisition plans and experience in contracting in general • Post-award assessment provides insights into how much each participant learned from the game through post-game interviews and debriefings



Recommendations (cont.)

Phase	Educational	Notional Application
Develop	<ul style="list-style-type: none"> • Play-test all components of wargame (multiple times as necessary) • Blind play-test wargame • Full dress rehearsal 	<ul style="list-style-type: none"> • Play-test vignettes, game flow, and contingency plans • Conduct test with non-participants with contracting experience • Full dress rehearsal
Conduct	<ul style="list-style-type: none"> • Pre-wargame assessment • Collect data • Manage players • Exercise contingencies (as necessary) • Debrief 	<ul style="list-style-type: none"> • Provided participants with the pre-wargame assessment the day prior to the game to allow time to process the information • Collect data throughout the game • One facilitator per team • Exercise contingencies (as necessary) • Participants debriefed a summary of the changes to their strategy along with their rationale. Upon completion of the debriefs the faculty member provides an overview of the game's objectives, facilitates an open discussion of the overall lessons learned
Analyze	<ul style="list-style-type: none"> • Post-wargame assessment 	<ul style="list-style-type: none"> • Participants given post-wargame assessments and analysis between the pre- and post-wargames assessments is analyzed



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