

# Working Group 1: Educational Wargaming to Develop Innovators



Connections 2015

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## **1. Wargaming should be used to promote critical analysis and experimentation among students.**

- Wargaming provides a low-cost/low-risk environment for experimentation; failure has no real-world costs.
- Wargaming provides an ideal environment for analysis and the exploration of alternative possibilities/hypotheses
- Design and classroom implementation of wargames must encourage students to challenge conventional wisdoms and try new things.

**2. Wargaming should be used to promote “systems thinking.”**

- Understanding how systems operate and variables interact is essential to innovation.
- Wargames are models, and wargaming can encourage students to enhance their own understanding of systems and their components.
- Student critique and design of games may have particular educational pay-offs.

**3. Wargaming can be used to strengthen personal attributes associated with effective innovators.**

- Social experience of gaming can increase self-confidence—a valuable attribute for innovators.
- Social experience of gaming can enhance cooperation, persuasion, and team skills—valuable attributes for innovators.

#### **4. Use wargaming to build the capacity of students to recognize, promote, and nurture innovation.**

- (War)gaming can enhance understanding of organizational process in ways that better equip student to move new ideas forward.
  - Navigating the “tribes, cults, and baronies.”
- Today’s students are tomorrow’s gatekeepers, encouraging or discouraging change.

#### **5. Game design matters.**

- Games should build in puzzles that require creative thinking to resolve—ideally in a broader context.
- Games should operate in students’ “zones of proximal development”
- Games should be accessible (cost, time, playability) in order to reduce barriers to entry and facilitate their wider use.

## 6. Instructors and instruction matter.

- Games are not self-teaching. The effective use of wargames to foster innovators requires effective instructors, and effective integration into broader curriculum.
  - The educational relationship between games and implementation is multiplicative (game x implementation), rather than additive (game + implementation).
- Debrief, discussion, and reflection are as important as the wargame itself. Offer quality feedback to students—including on issues of creativity and managing innovation. Listen to student feedback.

## 7. Catch them early.

- Wargaming can be most effective if infused across the entire range of PME and professional development, from the outset of officers' careers and sustained throughout those careers.
- Current emphasis on reinvigorating wargaming appears to devote inadequate attention to education:
  - DoD efforts must place **more emphasis on wargaming as an educational tool to develop innovators.**
  - Reinvigorated wargaming—if it is to be sustained—will require **serious attention the education, training, and mentorship of future wargamers.**