

# Conflict Simulation and Gaming in the Classroom



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- 1. Why?**
- 2. How?**
- 3. Best practices**
- 4. Additional sources**

## Serious games and learning

- 🗣️ research on educational games suggests:
  - 🗣️ **moderately positive** effect on learning (compared to conventional methods), but considerable variability
- 🗣️ much depends on simulation design and implementation
  - 🗣️ a **poor simulation implemented well** may have superior learning outcomes over a **good simulation implemented poorly**
  - 🗣️ simulations do not teach themselves
  - 🗣️ importance of debriefs

## Serious games and learning

- 🗣️ *simulations can:*
  - 🗣️ **act as intellectual cross-training**
  - 🗣️ **promote team-building and networking**
  - 🗣️ **motivate and engage**
  - 🗣️ **offer insight into issues of process, coordination, interaction that lectures convey poorly**
  - 🗣️ **offer insight and empathy into the perspectives and behaviour of others**
    - 🗣️ Kesten Green, “Forecasting in conflict situations” (2002)

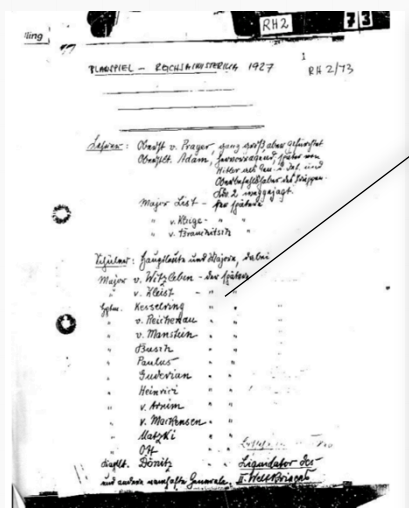
\*depending on design and implementation



# Gaming and PME

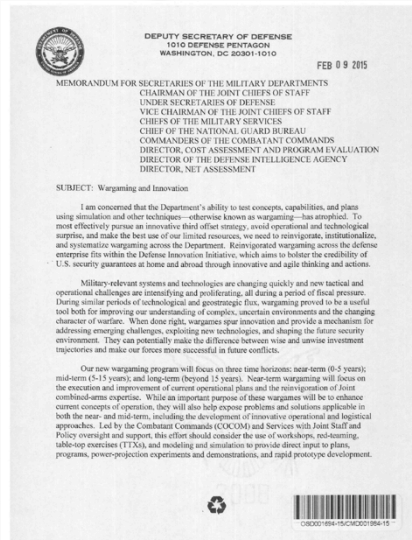
- There are particularly strong reasons to integrate conflict simulations and wargames into professional military education:
  - risk-free setting for experimentation and learning
    - no one gets killed in a game
  - adversarial play (tactical, operational, strategic)
    - will plans survive contact with a thinking, adaptive enemy?
  - modeling fog of war, friction, coordination challenges
    - (in a way lectures can never do)
  - learning important game design and assessment skills
    - knowing how to use and assess gaming methods in an informed and critical fashion

# Gaming and PME



- List
- Kluge
- Brauchitsch
- Witzleben
- Kleist
- Kesselring
- Reichenau
- Manstein
- Busch
- Paulus
- Guderian
- Heinrici
- Arnim
- Mackensen
- Donitz

# Gaming and PME



## 1. Why?

## 2. How?

## 3. Best practices

## 4. Additional Sources



# Quick and simple games

- 1 minute negotiation (ultimatum game)
- 2 minute negotiation

**a one minute negotiation**

PEACEBUILDING

**a two minute negotiation**

PEACEBUILDING

# Quick and simple games

- take up little class time, yet can be linked to considerable experimental research

**TABLE 1 Breakdown of Defection and Cooperation Choices: American-Chinese Sample**

	Offered 50	Accepted 50	Total
China	31 (46.3)	36 (53.7)	67
United States	41 (74.5)	14 (25.5)	55
Total	72 (58.4)	50 (41.6)	122

(Hershey and Pomplun 1998)

From: Oosterbeek, Stoof, van de Kullen (2004)

**TABLE 1 Differences between Student and Military Cadets in Choosing "Do Nothing" versus "Do Something" (in Percentages)**

Student Group	Do Nothing	Do Something
Students	58	42
Military	35	65

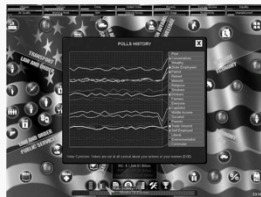
Similarly, Mintz et al (2006) showed that university students and military officers game crises in demonstrably different ways, despite having a common "national" culture.

Similarly, economists appear to be more selfish (from lit review by Bauman 2012):

- Marwell and Ames, 1981 – Economists don't understand fairness like other people...
- Carlin and Fisman, 1985 – Economists are different before they become economists...
- Frank et al, 1993 – Economists more likely than others to freeride...
- Frank and Shu, 2000 – Economics students more corrupt than others...
- Wang et al, 2012 – Economics students less moral in Dictator Game, economics education associated with more positive attitudes to greed and toward one's own greedy behavior...
- Bauman and Rose, 2011 – Economics students contribute less to social programs...

# Commercial games as reading/review assignments

- only limited instructor preparation or support required
- encourages students to adopt a critical perspective
- simulation need not be “high fidelity” (or even accurate)



Democracy 2



Masters of the World



Risk



Syrian Journey



Tropico 3



Inside the Haiti Earthquake



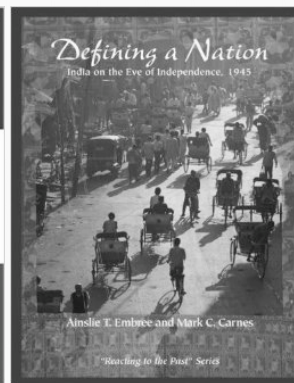
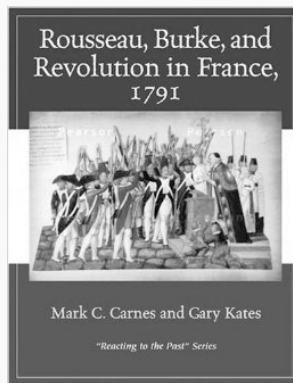
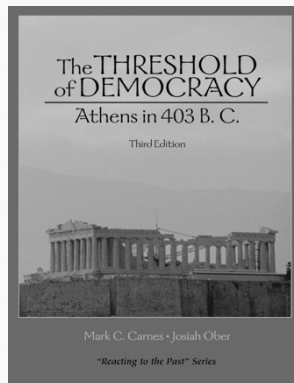
Third World Farmer



A Distant Plain

# Roleplay and negotiations

- variable length and degree of background preparation
- in-person and/or digital interaction
- some premade simulations available



Reacting to the Past series  
<https://reacting.barnard.edu/>

# A “game show”

- In larger classes, games can be played before an audience.

*The Impact of Colonial Incorporation into the Global Capitalist System on Pre-Colonial Subsistence Agriculture!*

year one

- one land produces three grain
- one artisan produces six pots
- a family consumes five grain

year three

- the Portuguese trader introduces cotton
- seed costs \$1 per land (half price this year)
- sells for \$4 per unit (more than grain)

year four

- colonial rule I
- missionaries provide medical care (\$2) and education (\$2)
- irrigation/mechanization (\$15, increases yield to 4/land)
- appointment of local magistrate
- registration of land
- taxation (\$3 per year)

year five

- prices down
- due to a slump in world cotton prices, cotton earns only \$2/unit this year

year six

- prices up
- due to a rise in world cotton prices, cotton earns \$6/unit this year

## Matrix games

- highly adaptable, free-play narrative games based on actions/arguments/consequences
- extremely easy to set up and run
- can simulate almost any multi-actor situation
- usually played with 4-7 actors/teams, but could be adapted to larger groups

# Matrix games

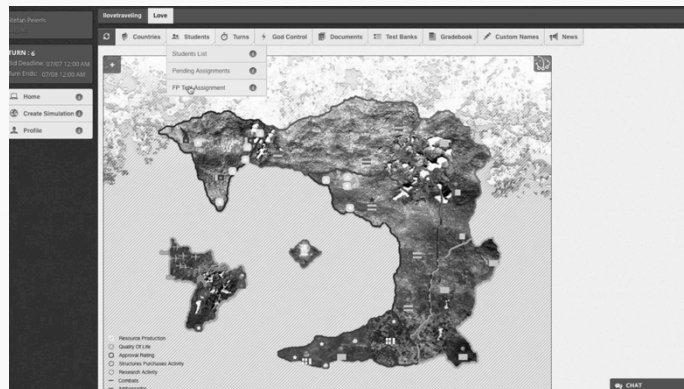


ISIS Crisis matrix game



# Online digital games

- subscription based, roleplaying + embedded game mechanics



## Custom-designed boardgames

- time-consuming and challenging to develop, but can be designed-to-purpose
  - variants and modifications can also be designed of existing games, with MUCH less work
- limited number of players?



Iraq RISK



Afghan Provincial Reconstruction





**How enjoyable did you find the game?**

Group	Not enjoyable at all	Not enjoyable	Somewhat enjoyable	Enjoyable	Very enjoyable
CDHPT	0%	0%	0%	100%	0%
MGIH	0%	0%	0%	100%	0%

**How well did the game illustrate themes relating to humanitarian assistance and coordination?**

Group	Not well at all	Not well	Somewhat	Well	Very well
CDHPT	0%	0%	0%	100%	0%
MGIH	0%	0%	0%	100%	0%

**Should the game be used in the course again in future years?**

Group	No	Perhaps, with some major modifications	Yes
CDHPT	0%	0%	100%
MGIH	0%	0%	100%

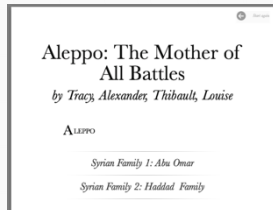


## Student-authored games

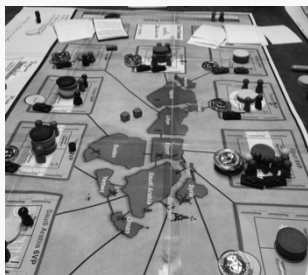
- research suggests students learn even more when asked to design their own game/simulation
- Druckman and Ebner, “Enhancing Concept Learning: The Simulation Design Experience,” (2010).



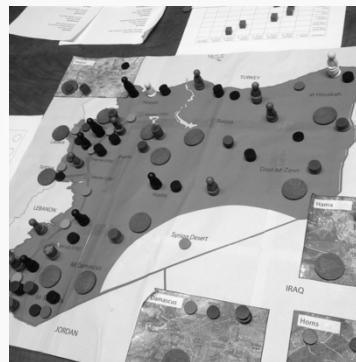
## Student-authored games



Inklewriter



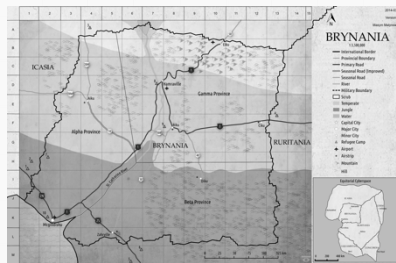
Arab Spring



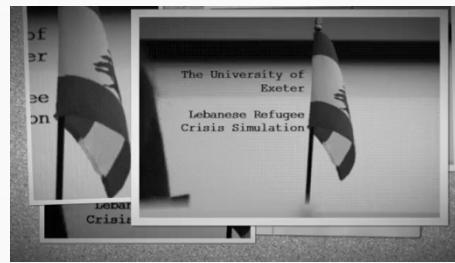
Road to Damascus

## Complex and hybrid games

- Role playing games combined with other game mechanics
- Can be very large indeed (“MegaGames”)



Brynania



Syrian Refugees in Lebanon

## Games as extra-curricular activities

- students with high degree of interest
- bonus grades?
- conflict simulation or wargame clubs with faculty support
  - call upon hobby gamers for support





**STRATEGIC CRISIS SIMULATIONS**  
**THE GEORGE WASHINGTON UNIVERSITY**



**1. Why?**

**2. How?**

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**4. Additional Sources**

## Best practices

- Start with educational objectives: what are you trying to do?
- Consider constraints (time, space, participants) and trade-offs.
- Integrate with course curriculum, either to identify issues for further examination or to highlight/explore material already covered.
- Think about atmospherics and student engagement.
- Start simple (as a neophyte simulation user).
- Keep it simple (as a game designer).
- Plagiarize! (as a game designer).
- Make use of free technology (email, blogs, course software, Facebook, Twitter, Skype).

## Best practices

- **Prebriefing**
  - what should students expect?
    - ... although some surprises are fine
  - how should students prepare?
    - preparation/background assignments

## Best practices

### Debriefing

- what should student know about what happened?
  - in some games, players may not be aware of all that transpired
- what should students learn from the experience?
- what should students **NOT** learn?
  - learning from “bad” games
- debrief/reflection assignments
  - student feedback can help to refine the game design or implementation

## Best practices

### Assessment

- game reviews should be graded
- game designs should be graded
- preparation and debrief assignments should be graded
- simulation participation might or might not be graded:
  - yes:** rewards students for effort
  - no:** distorts game play, may be difficult to assess
  - sort of:** optional assignment/bonus or class participation grades

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## Additional resources

- 🎮 **PAXsims**  
🎮 <http://www.paxsims.org>
- 🎮 **Active Learning in Political Science**  
🎮 <https://activelearningps.wordpress.com>
- 🎮 **Gaming Political Science**  
🎮 <http://www.k-state.edu/polsci/gaming/>
- 🎮 **Play the Past**  
🎮 <http://www.playthepast.org>
- 🎮 **Inklewriter**  
🎮 <http://www.inklestudios.com/inklewriter/>





## Additional resources

### Journals

- *PS: Political Science and Politics*
- *International Studies Perspectives*
- *Simulation & Gaming*



## Additional resources

### Books

- Peter Perla, *The Art of Wargaming* (1990)
- Katie Salen and Eric Zimmerman, *Rules of Play: Game Design Fundamentals* (2004)
- Philip Sabin, *Simulating War: Studying Conflict Through Simulation Games* (2012)
- Mark C. Carnes, *Minds on Fire: How Role-Immersion Games Transform College* (2014)
- John Curry and Tim Price, *Matrix Games for Modern Wargaming* (2014)
- Natasha Gill, *Inside the Box: Using Integrative Simulations to Teach Conflict, Negotiation and Mediation* (2015)
- Pat Harrigan and Matthew Kirschenbaum, *Zones of Control: Perspectives on wargaming* (MIT Press, forthcoming 2016)

# Additional resources

## Conferences

### Connections

- US (original), UK, Netherlands, Australian versions
- wargame professionals, designers, academics
- Montgomery AL (Maxwell AFB), July 2016
- Kings College London, September 2016

### Military Operations Research Society (MORS)

- operations research (includes M&S and wargaming tracks)
- full of OR analysts
- FVEYs: allow time for processing clearances!
- Quantico, 20-23 June 2016

### I/ITSEC

- modeling, simulation, training
- massive (14,000 registrants) and full of defence contractors
- Orlando, 30 November – 4 December 2015