

Breakout Session 10: Defining the Frontier for DARPA's DARPA: Understanding and Accelerating Technological Revolution

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Two Kinds of Game Board Cards



EVIDENCE

Synopsis

Connect only to Generalization Cards

No Limit on Number of Connections

Generalization Card can only

Generalization

Synopsis

Connect two Evidence Cards



Evidence Cards



EVIDENCE

Synopsis

_____ Ideal Gas Law _____

_____ $pV=nRT$ _____

Connect only to Generalization Cards

No Limit on Number of Connections

- Evidence cards are statements of supportable fact
- You can use the premade Evidence Cards or create your own
- Evidence cards have 0 or more connections



Basic Relationship



Connect two pieces of evidence with a Generalization Card



- The synopsis explains the possible connection between 2 evidence cards
- The synopsis is often a question, but not always
- It's okay to play an obvious Generalization card. It keeps things moving.



Process starts with unconnected statements of fact.

EVIDENCE
Wood on wood wears out quickly. Need a bearing material to match to wood shafts.

EVIDENCE
Stone and wood make poor swords. If we had better swords we could defeat the Greeks.

EVIDENCE
Pointed sticks make poor spears. If we had better spearheads we could sell them.

EVIDENCE
Smelting malachite and arsenopyrite together yields a metal stronger than copper



A player recognizes that there might be a connection between arsenic bronze and the need for better spears, so the player connects the two pieces of evidence.

EVIDENCE
Stone and wood make poor swords. If we had better swords we could defeat the Greeks.

EVIDENCE
Pointed sticks make poor spears. If we had better spearheads we could sell them.

EVIDENCE
Smelting malachite and arsenopyrite together yields a metal stronger than copper

Generalization
Synopsis
Maybe we can use this to make better spearheads



Another player thinks that clay molding
techno Players have collaborated to create a possible
bronze surprise mode – and maybe the kernel of a
DARPA Program.

EVIDENCE
Stone and wood make poor swords. If we had better swords we could defeat the Greeks.

EVIDENCE
Pointed sticks make poor spears. If we had better spearheads we could sell them.

EVIDENCE
Smelting malachite and arsenopyrite together yields a metal stronger than copper

Generalization
Synopsis
Maybe we can use this to make better spearheads

Generalization
Synopsis
Can we use clay molds here?

EVIDENCE
We can build clay molds that stand up to smelting temperatures.

Generalization
Synopsis
Is work hardening effective after molding?



Agenda



10 minutes of explanation of goals and rules

Gameplay begins

- Round 1: Program Creation (20 minutes)
 - 4 attendees to play DARPA PM's
 - 4 groups of 9 "performers" provided with both prepared and blank evidence cards
 - Webcast group will participate as the 5th group via webcast and chat (moderator Stephen Ryan)
 - Groups have 20 minutes to assess evidence, define a surprise mode, and assemble a program concept that includes answers to the proxy Heilmeyer questions
- Round 2: Adjudication (20 minutes)
 - Each PM pitches his/her program concept to the Director in 4 minutes
 - DIRO actor provides feedback. DIRO actor can criticize anything except lack of data.

Game concludes



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