Advancing Critical Thinking

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You can't learn to swim by reading a book

familiar -> comfortable -> proficient
Nothing to disclose
Simulation training is a waste of time.

CHANGE MY MIND
Why Simulations?

- Practice
- Get better
- Evaluations
- Hazing
Why Simulations?

- **Sensory-Stimulus Theory** - Laird
  - more sensation = retention
- **Reinforcement Theory** - Skinner
  - behavior as a function of consequences
- **Cognitive-Gesalt** - Burns
  - experience to find meaning and develop insights
- **Facilitation Theory** - Laird
  - learners consider new ideas
What else is there to say?

- State of Simulations
- Keepin' it Real
- Designing Simulations
- Jumping in the Deep End
Designing Simulations

BP 82/46, HR 100, RR 38, SpO2 86%, EtCO2 61, BG 40, temp 101.1 F, 12 lead Sinus Tachycardia, GCS 8

Clinical Benchmark 1: recognize ventilatory compromise – BVM ventilation
Backstop: tachypnea - hypoxia – bradycardia – HOLD

Clinical Benchmark 4: recognize hemodynamic instability – fluid challenges and pressors
Backstop: hypotension – low end tidal – PEA
Keepin' it Real
Yerkes-Dodson Law

Optimal anxiety level for difficult tasks
Optimal anxiety level for medium tasks
Optimal anxiety level for easy tasks

Performance

Anxiety

Low

High

Courtesy of Researchgate.com
Yerkes-Dodson Law

Optimal Performance

Performance

Low

High

Stimulation Level

Low

High

Focused & Engaged

Bored & Tired

Stressed & Restless

Courtesy of Researchgate
On Combat; Grossman
What are we really practicing anyway?

**Breathing Control**
- Failure to Exhale
- Trapped and Anxious
- Accessory Muscle Use
- Slow and Rhythmic
- Diaphragmatic

**Visualization**
- Crisis Rehearsal
- Anticipation
- Surprise Factor
- Different Approaches

"I can see myself screwing this up."

**Self Talk**
- Always Happens
- Toxic Thinking
- Placebo Effect
- Contagious Negativity
- If vs When

- Practicable Skill
  - How?

- Redirection
  - Tactical Word Choice
  - Process vs Outcome

- Identify What Needs to Happen
• Practicable Skill
  How?

• Redirection
• Tactical Word Choice
• Process vs Outcome
• Identify What Needs to Happen
• **Training Debriefings & Letting Go of Perfect**
  - Socratic Method
  - Jennifer Fox
  - Growth Mindset

• **Teaching to Our Expectations**
  FOR you
  WITH you
  WATCH you
  YOU do
Closing Thoughts...

If we want to be professionals, we have to practice being professionals.

We exist in a high-stress, high-stakes, time-competitive operating environment where we cannot bank on success as a coincidence.
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References


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