

THE INSIDER ADVANTAGE

Building Healthcare Games as a Nurse-Developer



PRESS START



SELECT CHARACTER

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• LVL: PhD, RN



• GUILD: Suleyman Demirel University




• CLASS: WEFI Games Founder &
Nurse-Developer
• Gamfed Turkiye Volunteer



Who knows my patients better: me or a studio?

Frustration: Handing over clinical expertise to developers who don't understand the ward.



Don't let anyone else think for your patients.

Empowerment: Taking control of the code, the narrative, and the clinical logic.



CURRENT MODEL

- Clinical educators → Hire game studio
↓
- Studio interprets clinical knowledge
↓
- Produces generic, inauthentic content
↓
- AI builds without your clinical lens



INSIDER MODEL

- Clinical educators → Learn game development
↓
- Learn to prompt, evaluate & direct AI
↓
- Build authentic scenarios themselves
↓
- Students get clinically accurate games

GAME THINKING SPECTRUM

(Adapted from Andrzej Marczewski)

NO GAME PLAY

GAME PLAY



Playful
Design

Game Inspired
Design

SERIOUS
GAMES

Fun /
Entertainment

GAME PURPOSE

FUN/ENTERTAINMENT

“THE INSIDER ADVANTAGE”

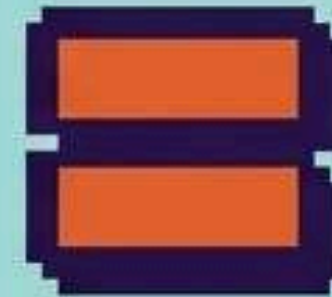
What Happens When a Nurse Learns to Code?



[Clinical Expertise]



[Technical Skill]



[Evidence-Based Games]

RESEARCH JOURNEY (5 Studies. 1 Direction.)

Clinical Decision Pilot
(n=60)
→ ↑ Self-confidence
& problem
determination. (2022
RFS Award)

COVID-19 Serious
Game (n=62)
→ ↑ Knowledge
improvement ($p < 0.001$)
in infection
infection prevention.

VR Smart Glasses
(n=13)
→ Immersive VR led to
higher knowledge
permanence vs.
lectures.


Comparative
Effectiveness (n=72)
→ Games equaled
standardized patients
in learning outcomes
(Cohen's $d = 0.727$).

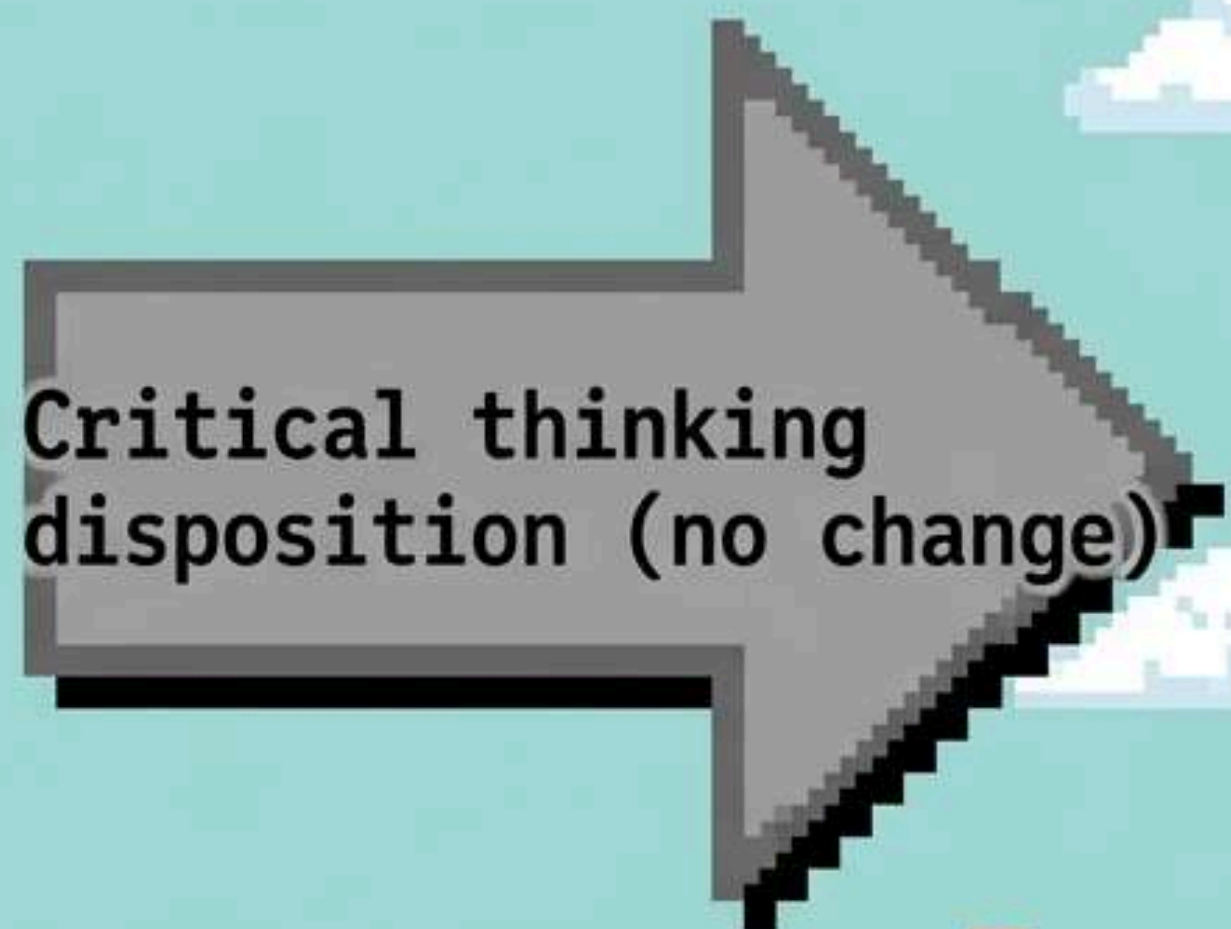
GestDia Escape Room
(n=45)
→ High student
motivation ($M = 140.8$)
and satisfaction.



WHAT DOES AI ACTUALLY CHANGE?

Multicentre Quasi-experimental Study (n=108, 2025)

- 
- ↑ Metacognitive awareness ($p < 0.05$)
 - ↑ Option recognition ($p < 0.05$)
 - ↑ Outcome anticipation ($p < 0.05$)
 - ↑ Nursing care plan accuracy ($p < 0.001$)



→ Critical thinking disposition (no change)

**AI changes how students decide.
Not yet how they think about thinking.**

WELCOME TO THE NEXT LEVEL

CAMPUS
ATLANTIS

Entering the VR Clinical Environment...

Immersive 3D VR Interaction



A nursing student engages with an AI-powered character at a clinical meeting table.

AI-Powered NPC Interaction

AI characters manage clinical behaviors and personalities defined by the nursing educator.

Enhanced Metacognitive Awareness

Studies show AI-driven simulation significantly increases student option recognition and metacognitive skills.

Real-Time Clinical Assessment

The Patient: Ayse Fidan

An AI-simulated patient presenting with complex, multi-system clinical symptoms.

AI-Driven Data Delivery

The NPC provides real-time findings across respiratory, cardiovascular, and physical categories.

[Student]: What are your current vital signs and symptoms?

[AI]: I am feeling very short of breath, and my heart feels like it's racing and skipping beats. I'm also having trouble urinating.

[Student]: Can you give me the specific numbers for your breathing and heart rate?

[AI]: Yes, my respiratory rate is 30 breaths per minute, and my oxygen saturation is 86%. My heart rate is 118 beats per minute and feels dysrhythmic. My blood pressure is 100/60 mmHg.

[Student]: Have you noticed any changes in your urine output or any swelling?

[AI]: My urine output has been low, about 20ml per hour, which I believe is oliguria. I have also noticed some swelling in my legs, about a +2 pretibial edema.

The AI speaks. The nurse decides.

THE AI LOOP: WHEN THE NURSE CONTROLS THE VOICE



"The nurse defines the patient. Artificial Intelligence gives them voice."

IMPLICATIONS & FUTURE DIRECTIONS



[**MAIN QUEST**] Shift from generic simulations to Game-Based Healthcare Scenario Builders.



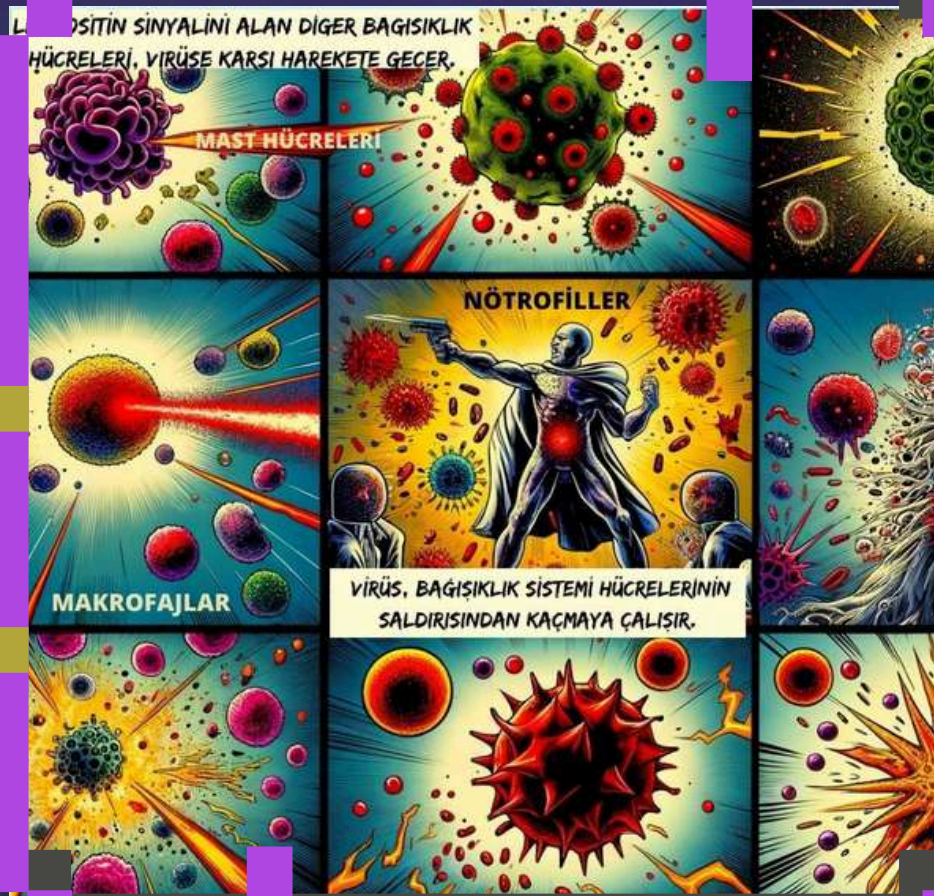
[**SIDE QUEST**] Empower educators to act as prompt engineers and technical directors.



[**UNLOCKED**] Deploy AI-driven Standardized Patients for infinite, dynamic clinical rehearsal.



[**IN PROGRESS**] Continuous validation of metacognitive impact in virtual environments.



Game-Based Healthcare
Scenario Builder
CHATGPT

NEXT LEVEL: BUILD YOUR OWN CLINICAL WORLD IN 3D

WORK IN PROGRESS



**Clinician designs the world.
AI populates the knowledge.**

NEW GAME+ BEGIN

