"Play is the beginning of knowledge"

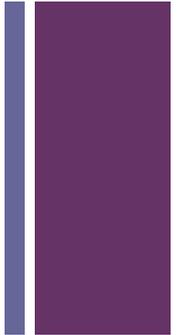# Serious Games to Teach Quality and Safety Concepts

Julie K Johnson, MPSH, PhD

17 November 2015, 12:05 – 12:45

Improving Healthcare International Convention

+ Agenda

- Introduction

- Ice Breaker

- Theoretical framework for teaching and learning using games

- What is a game? Deconstructing a game

- Developing games for your own setting

Why are you here?

- Turn to the people around you, introduce yourself, and discuss
  - Your experience in playing games for teaching and learning
  - How do games help you teach healthcare improvement?
  - What do you hope to gain from this session?
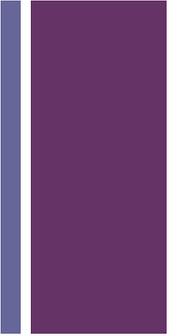
I hear and I forget,
I see and I remember,
I do and I understand

-- Chinese Proverb

Assumptions about games
(not mine, but some that I've heard)

- Childish

- Not important

- "Beneath" serious health care professionals

- Frivolous

- Waste of time

- Too much fun and so distracts from learning

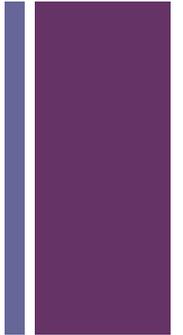- Shouldn't play games about serious work

+ Ice Breaker

- Choose an opponent for thumb wrestling

- The goal is for you to win this competition as many times as you can in 15 seconds
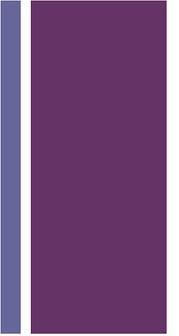
- Winning means pinning your opponent's thumb

Adapted from Sweeney and Meadows, The Systems Thinking Playbook. 1995

What Happened?

- How many points did you get?

- What were the assumptions you brought into this game?

- How did your assumptions affect your behavior?

- If you've played this game before . . . What makes this game effective?

"Play is the highest form of research"
~ Albert Einstein

+ Some Definitions

- Simulation
  - Represents a real world model, with a referential system – it refers back to something concrete. There are many simulations that are not games. (e.g., wind tunnel, simulated disaster, flight simulator, mannequin simulator)

- Games
  - Not necessarily designed to represent a real world system or process; not all games are simulations (e.g., card game such as poker, chess)
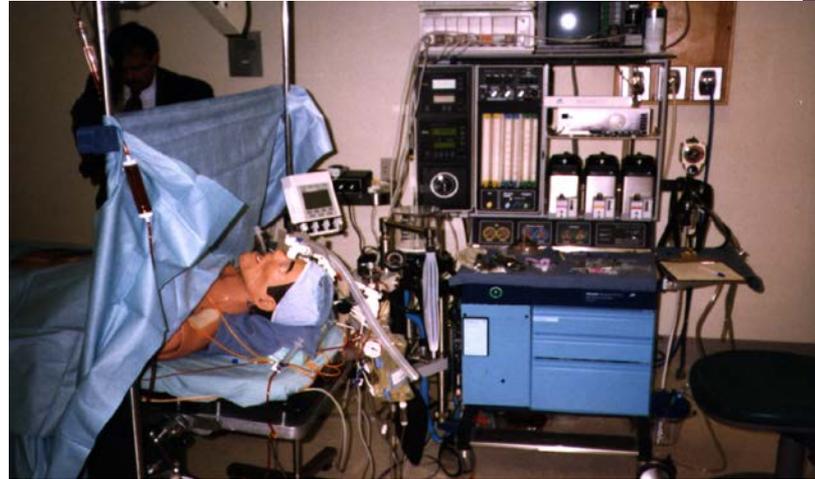
- Gaming Simulation
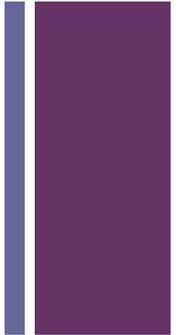 - Hybrid form involving the performance of game activities in a simulated context

- Role Playing
  - Elements of gaming simulations, assigned role and general outline, action is free-wheeling, less structure and formalization

+ Patient Simulators

Educational objectives when using games

- Increase motivation and interest = engagement

- Develop specific skills

- Change attitudes

- Encourage self reflection and evaluation

- Facilitate evaluation by others

- Create shared experience that sets the stage (atmosphere) for group learning = community

Lecturing versus Gaming

| Lectures	Games
Passive learners	Active learners, interactive
Sequential and linear	Complex, add simultaneous events and actions
Difficult to clearly represent systems characteristics	Well suited for complex relationships
Offer little imagery	Engages left and right brain
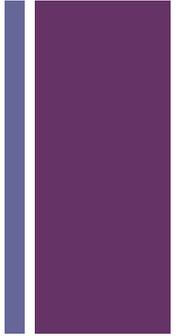
"The best way to learn about something is to play at it."

~ Fred Rogers

Games can target core competencies for health professionals—Competency Based Healthcare Education (CBME)
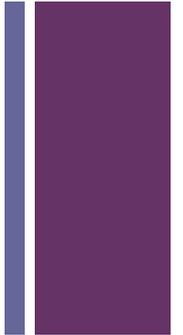
- Canadian Medical Education Directives for Specialists
  - Medical Expert
  - Communicator
  - Collaborator
  - Manager
 - Health Advocate
  - Scholar
  - Professional

- U.S. Accreditation Council for Graduate Medical Education)
  - Patient Care
  - Medical Knowledge
  - Professionalism
  - Communication
  - Systems Based Practice
  - Practice Based Learning and Improvement

- Patient Safety Core Competencies for Health Professions
  - Patient Care
  - Knowledge for Practice
  - Practice Based Learning and Improvement
  - Interpersonal Communication Skills
  - Professionalism
  - Systems-Based Practice
  - Interprofessional Collaboration
  - Personal and Professional Development
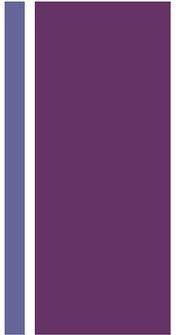
+ Communication Exercise
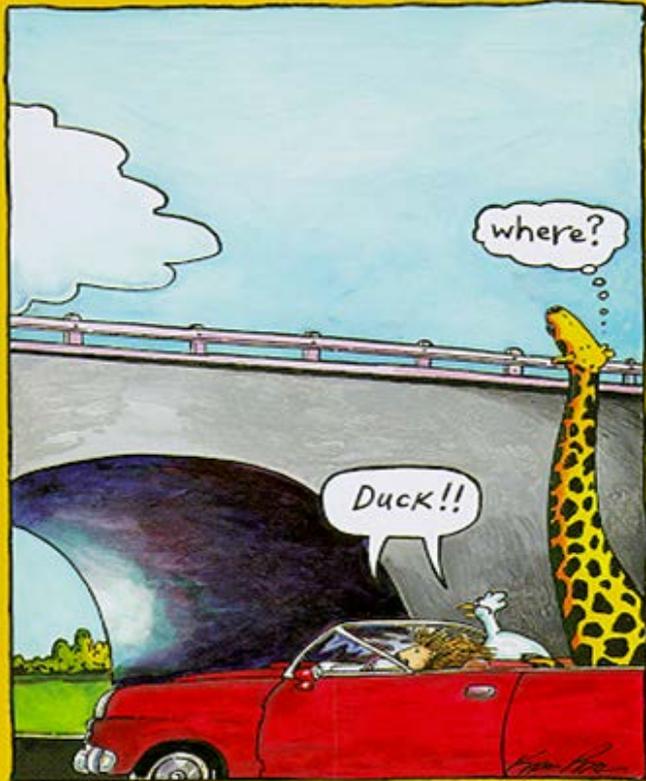
Unfortunately, animals sometimes lack the necessary skills to communicate with each other.

- Our goal is to produce identical patterns with the pieces of paper

- Take 1 sheet of colored paper

- No talking

- Close your eyes

- Do exactly what I tell you to do

Adapted from Sweeney and Meadows, The Systems Thinking Playbook. 1995

Instructions for Part 2 of the exercise

- Form groups of 3 or 4 people

- Pick 1 person to be the communicator and the rest will be the listeners

- Listeners close their eyes

- Communicators go through at least 3 steps, each step involving a fold and a tear

- Switch roles and repeat the exercise with your same group but with someone else as the communicator. This time the listeners are allowed to talk, but still have their eyes closed

+ What happened?
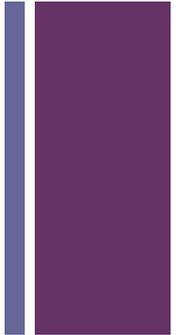
- How would you describe your listening skills?

- For those who were communicators, how effective were your skills?

- Were there any differences in the attempts?

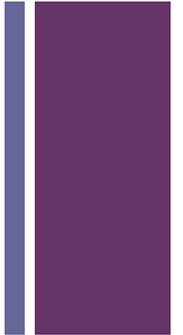- How could you think about adapting this exercise in your own setting?
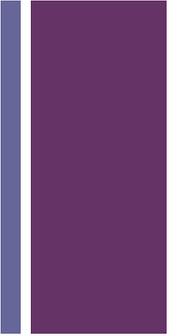
"You can discover more about a person in an hour of play than in a year of conversation."

~ Plato

Principles for developing and using games for healthcare

- Develop clear learning objectives and parameters
  - Subject matter
  - Purpose
  - Intended participants
  - Time available for set up, play, and debriefing

- Develop the model
  - Take time to be explicit about the system that you wish to simulate
  - Make decisions about the level of abstraction you want to achieve
  - Important to suspend disbelief
  - Use of props are integral to the exercise

- Adapt the exercise to fit the context – set the (game) context, do the exercise, debrief while link back to the larger (clinical) context

The Importance of the Debriefing Process
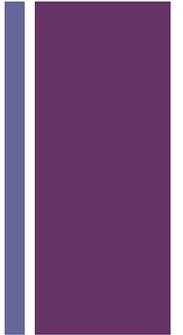
- Time allotted for debriefing equal or more than time allotted for exercise

- Ask participants to "Tell the story"
  - What happened? What did you see? How did it make you feel? What did you experience? Did it evoke memories or previous clinical experiences? What was your group's experience?

- Identify the lessons learned
  - What surprised you?
  - What did you learn?
  - What insights did you gain from the exercise about healthcare—your care, other's care?

- Make the connection back to the context (e.g., improving quality and safety of healthcare; authentic communication with your patients; nurturing culture)

- Focus on the reality which was represented by the game rather than the game---KEY

Framework for using Games for Teaching and Learning
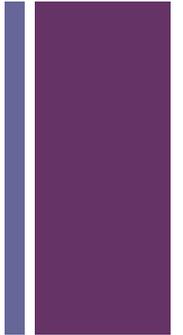
- What is the competency you want to address? Choose one

- What are reasonable expectations for learning outcomes?

- What ideas do you have to "play with" to illustrate the concept you want to teach? Have you seen something that you can adapt to your education, clinical setting?

- What resources will you need? (Personnel, space, materials, time)

- Create an opportunity to pilot test the game and solicit meaningful feedback
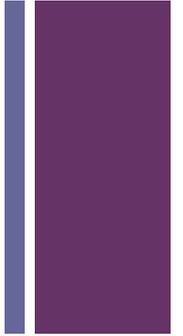
Take Home Messages
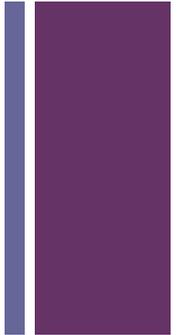
- Games are serious fun

- Games are powerful vehicles for engaging the whole person

- Games can facilitate reflection and learning

- Games are an effective way to teach adults

- Games a great way to imprint experiences and lessons learned

- Allow your creativity and child like enthusiasm to emerge

As you start to develop games . . .

"Once a person is digging a mental hole, there is a tendency to persevere, to keep digging, to take satisfaction in perfecting the shape and size of the hole without considering whether it is in the right place.

To increase the probability of digging the hole in the right place one should dig many shallow holes all over the area before selecting one to develop."

Edward DeBono

Questions or Ideas (or a game you want to share)?

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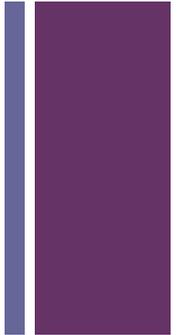
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