"If we teach today's students as we did yesterday's, we are robbing them of tomorrow."
— John Dewey

When Games and Instructional Design Collide

ID for Digital Simulations and Games

Katrin Becker
&
Jim Parker

What am I Playing Now?

Inception

When gamers make games we often get hollow games.

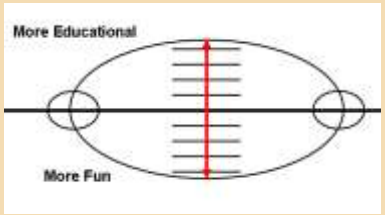
Skinning a game with 'learnin'
→
"edufication"

Inception

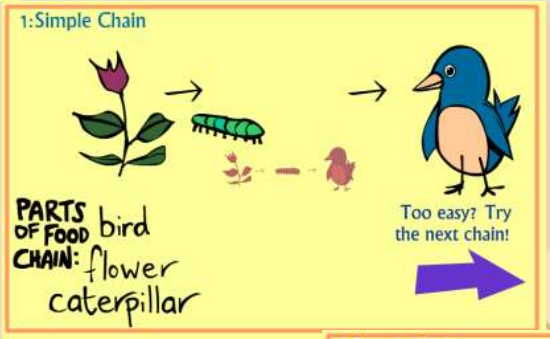
When educators make games we often get ***"edutainment"***

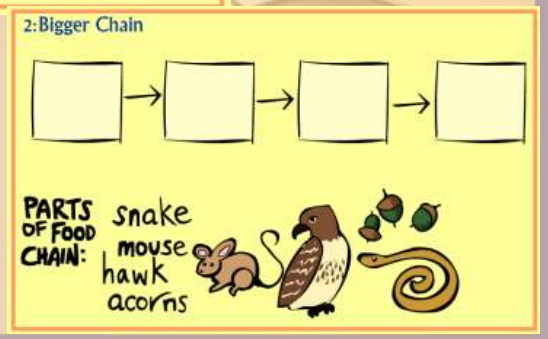
Wrapping a game around instruction

→



"education (is) a bitter medicine that needs the sugar-coating of entertainment to become palatable" M.Resnick





Is Focused Design Necessary?

Instructional Designers:

All we need is sound ID.

Game Designers:

All we need is sound game design.

NEITHER are sufficient.

AND:
The need for accuracy* necessitates the incorporation of simulation design principles.

*Accuracy applies to some aspects only.

All (Digital) Games are Simulations

Experimental:

Answer a "What If?" question.

Experiential:

Provide an experience

Is Focused Design Necessary?

Instructional Design:

focus is on ***content***

Game Design:

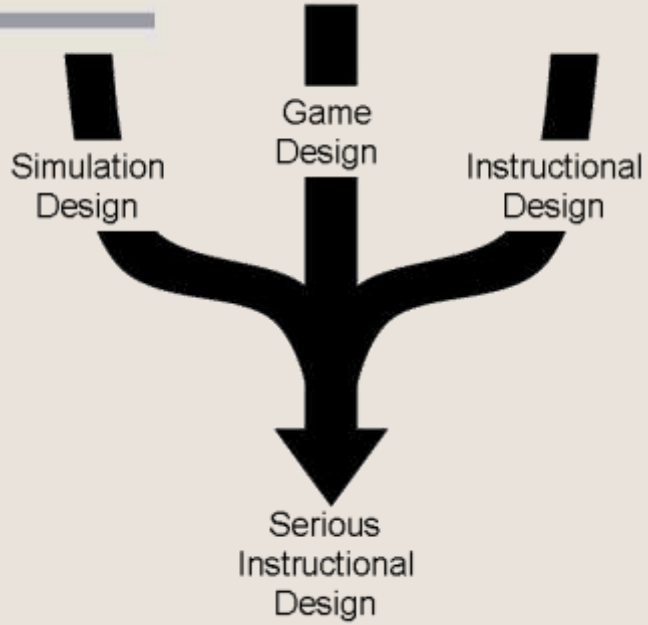
focus is on ***experience***

Simulation:

focus is on ***accurate model implementation***

Synergy

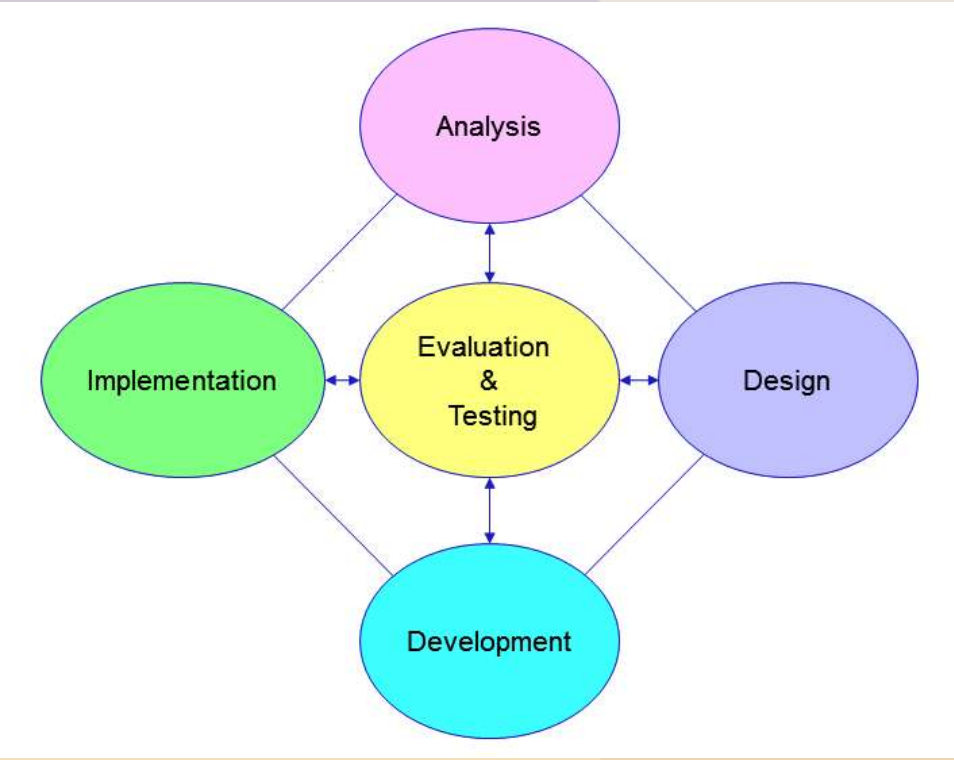
Each one alone is not enough.



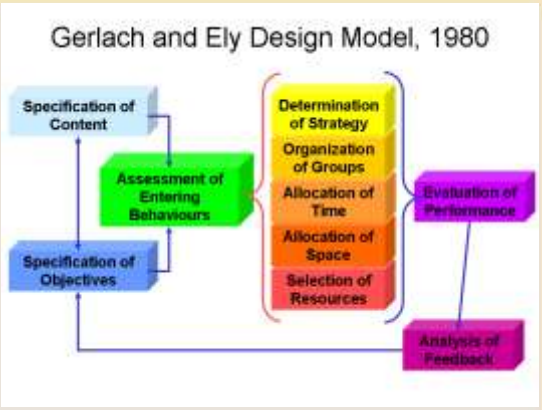
We need them all.

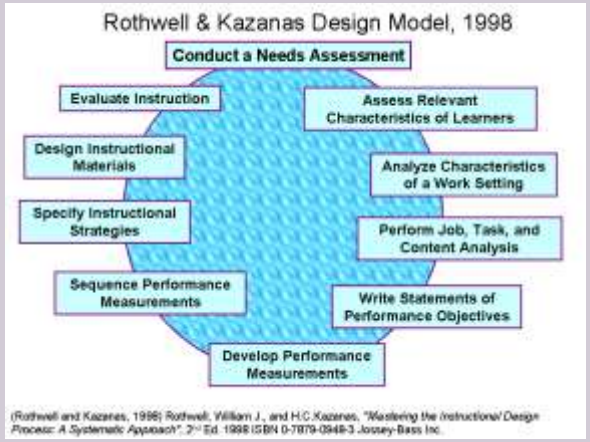
Designing Instruction

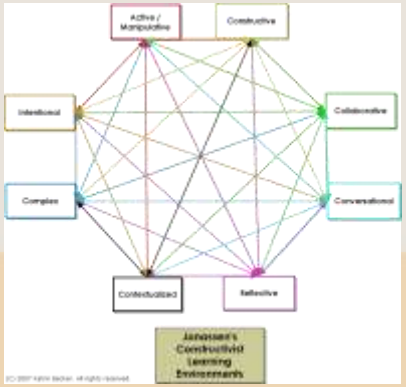
A.D.D.I.E.

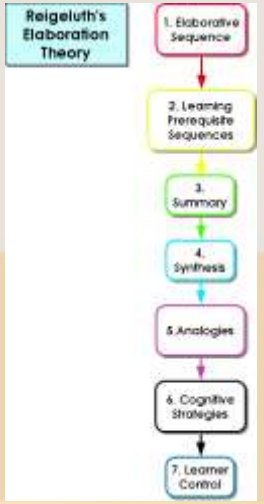


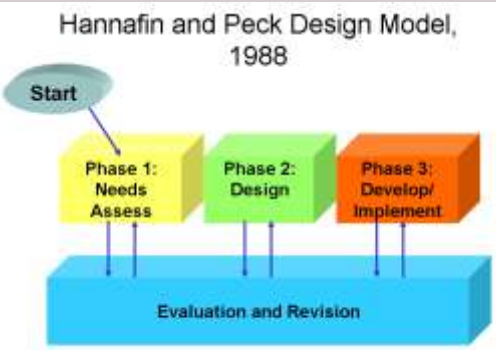
Designing Instruction

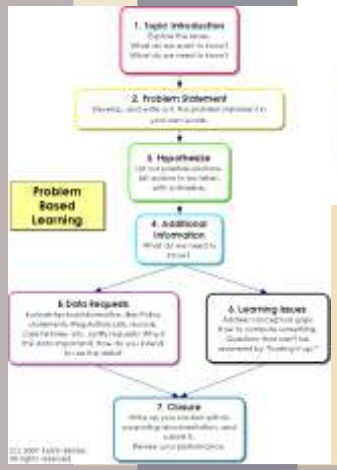


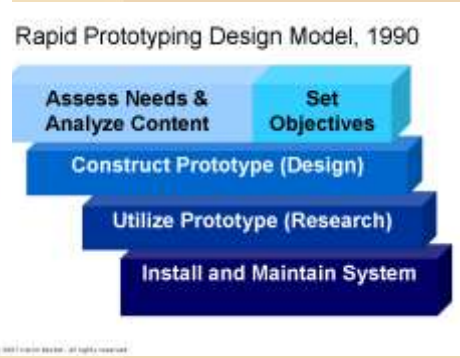


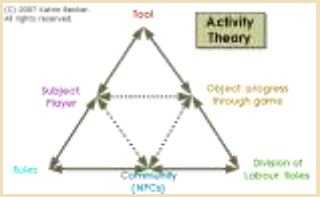


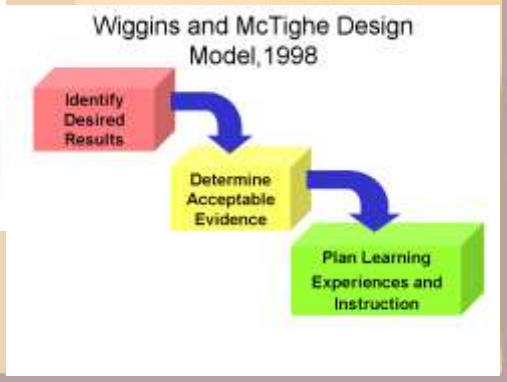






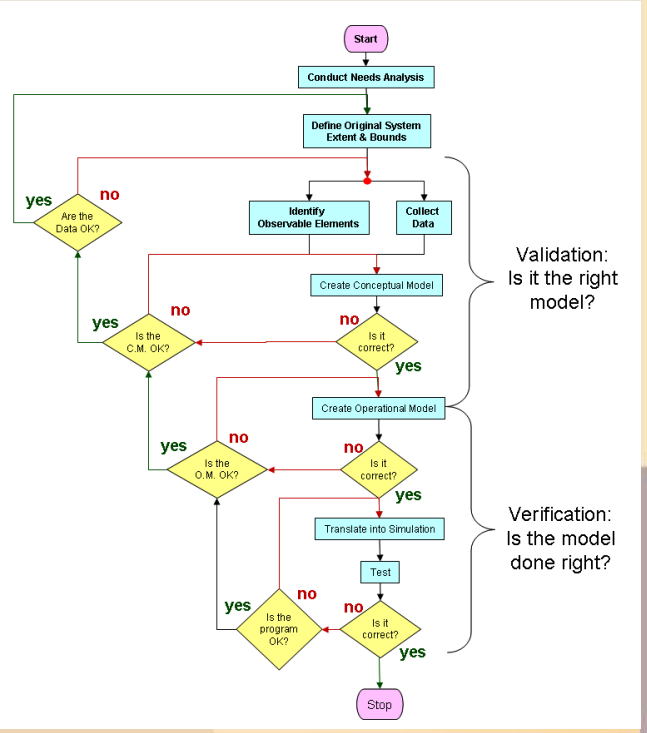




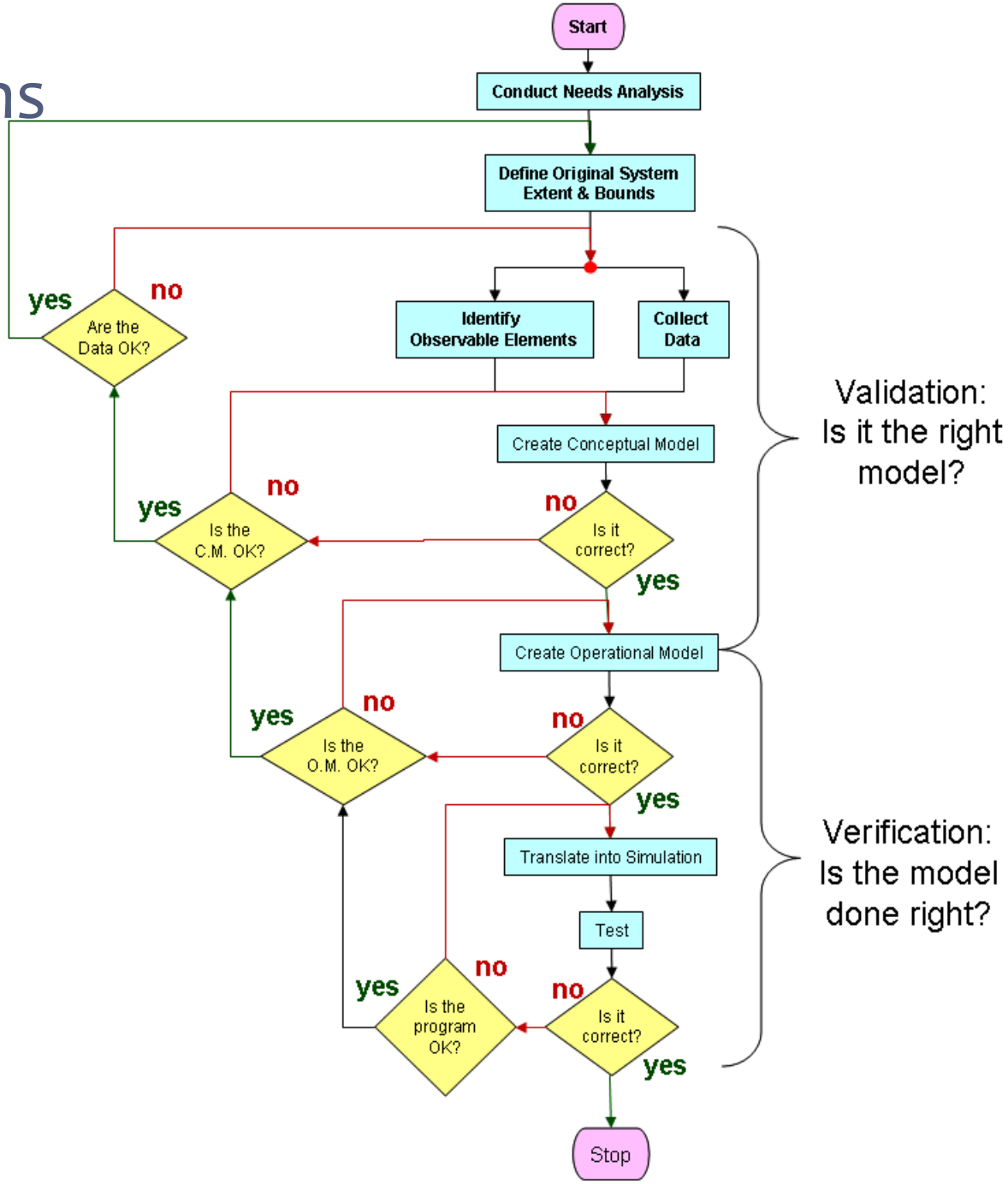


Designing Simulations

1. Describe the Model
2. Gather Data
   → Create Conceptual Model
3. ***Validate***
4. Create Operational Model
5. ***Verify***
6. Translate into Simulation
7. ***Test***



Simulations

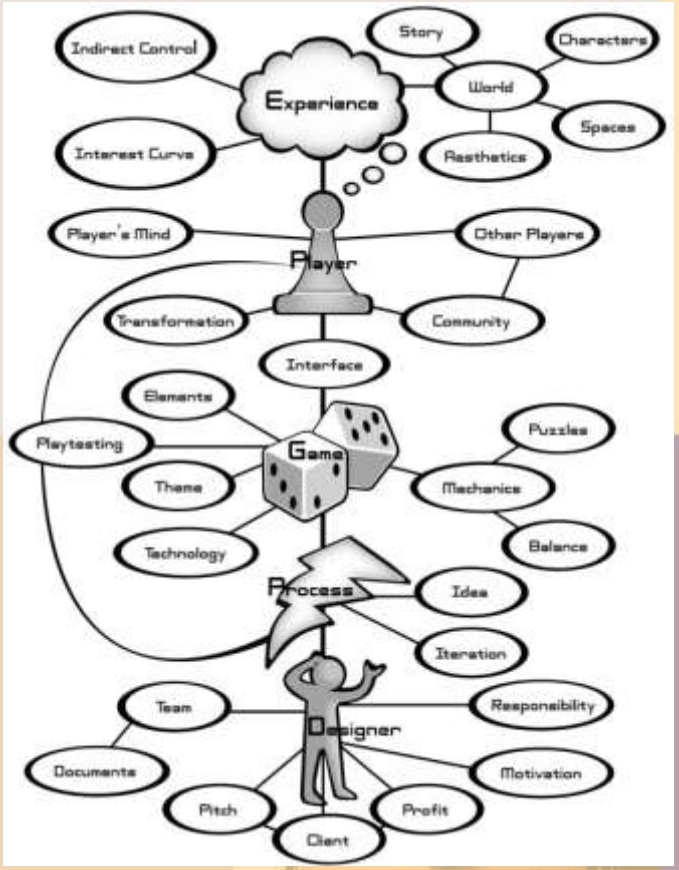


Katrin Becker, Jim Parker

Designing Games

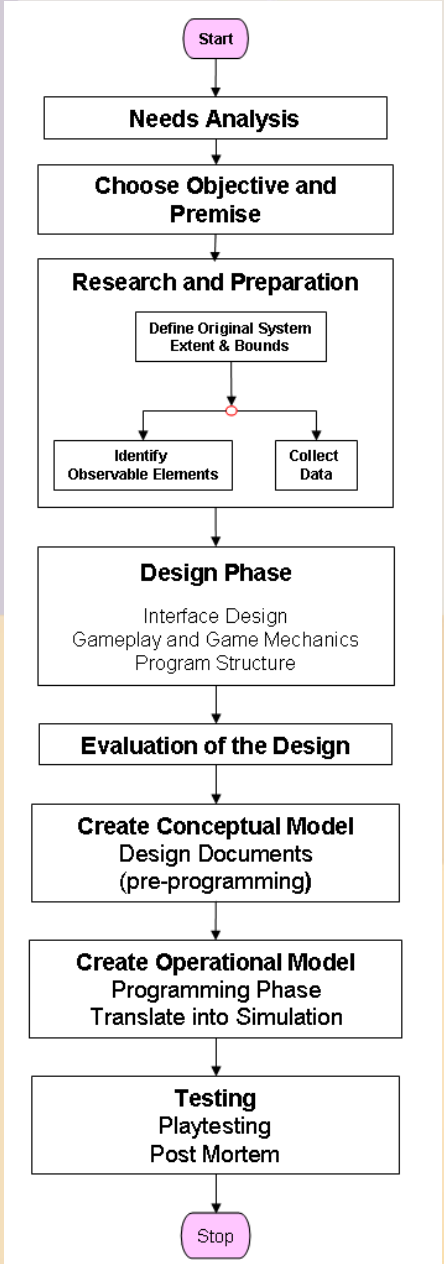
1. Choosing a goal and a topic (Objective and Premise).
2. Research and preparation.
3. Design Phase
    1. Input Output Structure (Interface)
    2. Game Structure (Gameplay and Game Mechanics)
    3. Program Structure
    4. Evaluation of the Design
4. Pre-Programming Phase
5. Programming Phase
6. Playtesting Phase
7. Post-Mortem

Jesse Schell, Art of Game Design, 2009



The Art of Computer Game Design (Crawford)

Designing Games

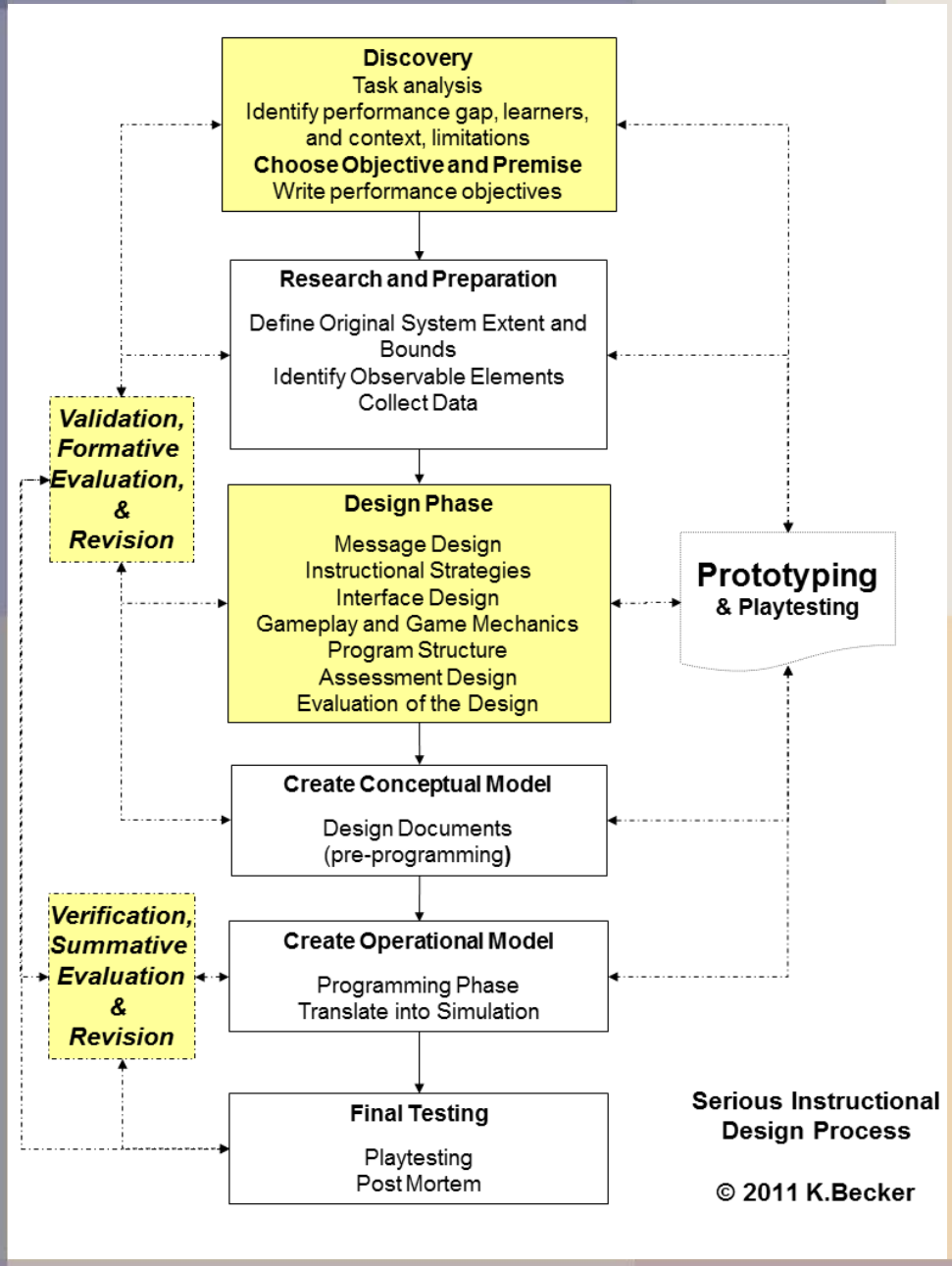


Why are we playing?

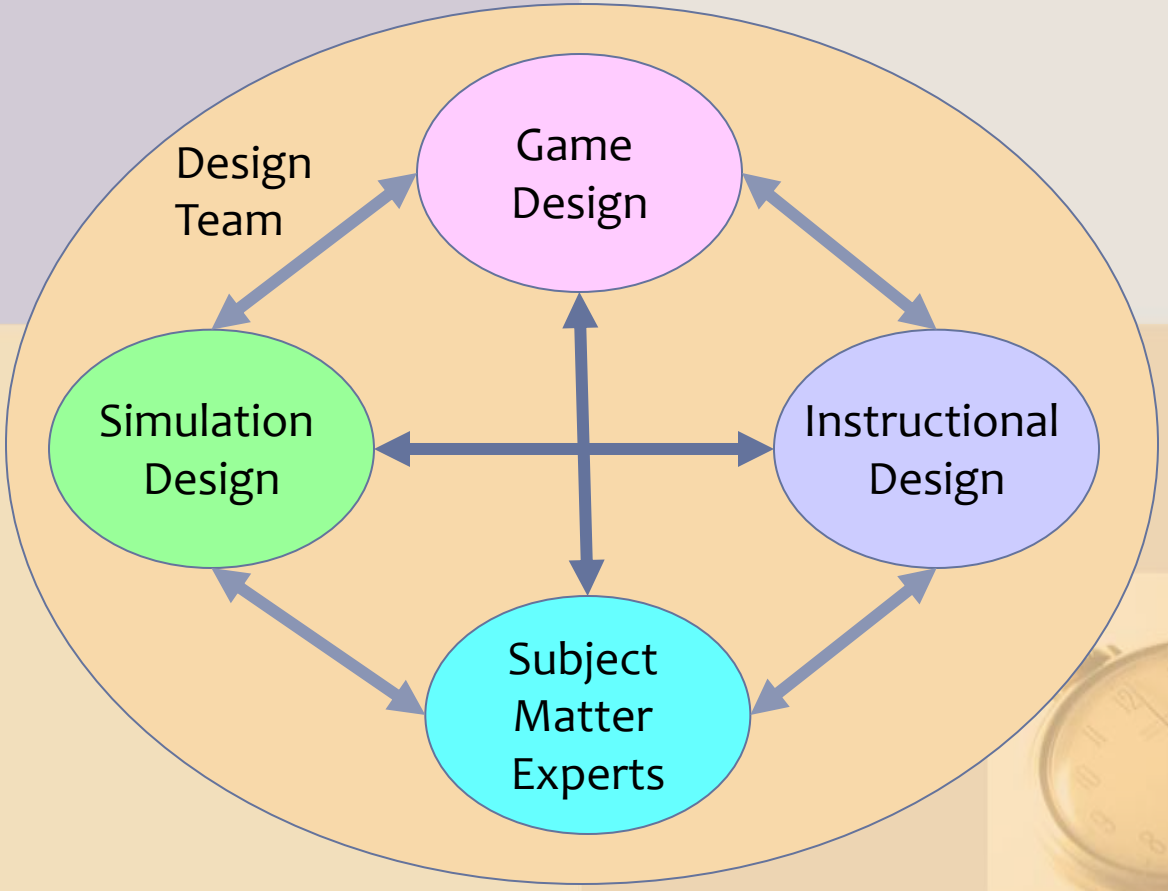
Where are we playing?

How are we playing?

Synergy: Serious Instructional Design

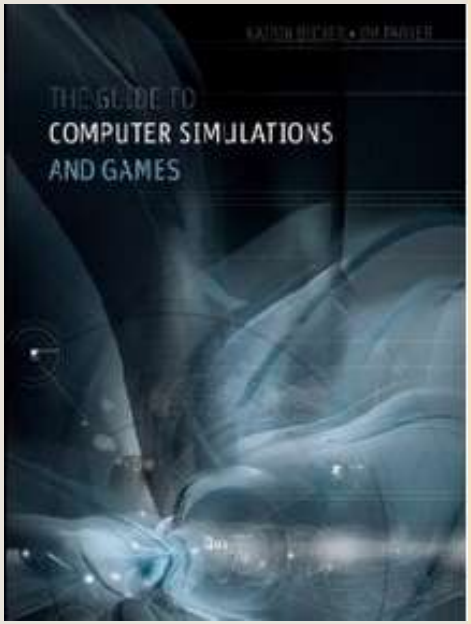


Synergy:
Serious Instructional Design



Thanks!

The Guide to Computer Simulations and Games



Jim Parker

Katrin Becker