

Learning through Simulations & Games

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Issues for Exploration

- Selecting simulations and games for different learning goals
- Creating the context
- Managing the learning process
- Facilitation skills and knowledge



Addressing Expectations

A learning needs analysis activity

Step 1

- Write three expectations about this session - each on a separate card

Step 2

- Bundle up all the cards and pass them to the group on your left

- **Step 3**
 - Sort all the cards you receive into piles of 'like meaning'
 - Summarise each pile using 1 to 3 sentences
- **Step 4**
 - Write your summaries on the large sheets of paper. Nominate a person to read them out



What are Simulations?

Simulations help find or create answers to 'What if' questions
Katrin Becker

Suppose humanity disappeared from earth. What would happen?

- We can simulate that.

What should the composition of asphalt be if we want to use it on an airline runway in the Bahamas? In Alaska?

- We can answer this with simulations.

What do we need to know/be able to do when we enter an unfamiliar context?

- We can design simulations to learn answers to this



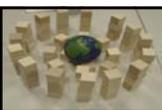
What are 'Games'?

Games always involve 'play' and, when most simple, have no purpose beyond enjoyment.

Both participants and designers can build **learning** into 'play' - e.g.

- ❖ Computer Games can be 'Serious' - having a deliberate learning intent in their design
- ❖ Playground games can aid learning about good relations and communication
- ❖ Card games can be either 'fun' or 'learning' - depending on context, users and goals

Learning Games - can use the form of any familiar game and even combinations of ideas



How do we know which game or simulation to choose?

There is no single answer to this question

- Each time we choose we have - consciously or unconsciously - considered such things as -
 - What do we want the learning to be about?
 - How mature are the participants?
 - How much time is available?
 - What materials are needed?
 - Am I confident I can manage the process and draw out the learning?
- Conscious, careful choices increase confidence and improve the learning quality

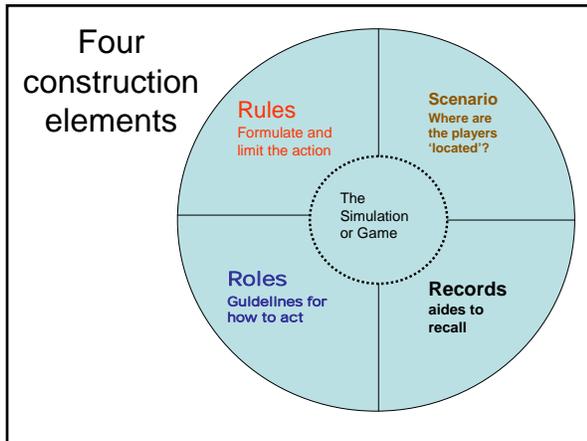


A 'Bird's eye' view of things we need to know

1. The **three** phases in simulations and learning games
2. The **four** construction elements
3. Simulations and games can be grouped in many ways
 - Each explains their characteristics differently
 - All can be used to group any simulation or game in relation to others
4. Facilitators draw out the learning and always avoid 'telling' it their way

Three phases of action

1. The Briefing - Facilitator
 - sets the scenario, invites participants to enter
 - defines the rules
 - Has all the power
2. The Action - Participants
 - are in charge of events
 - are observed by the facilitator
 - have the power (facilitator has reserve power)
3. The De-briefing
 - Facilitator and participants
 - Identify the learning
 - share the power
 - focus on transfer of learning



Categorising Simulations and Games

Caveat

- It is impossible to create a single categorising system to include all simulations and games
- They can be grouped in many different relationships
- Each new arrangement refers to particular features and possible uses



The following groupings are useful for understanding different activities

A Hierarchical Model

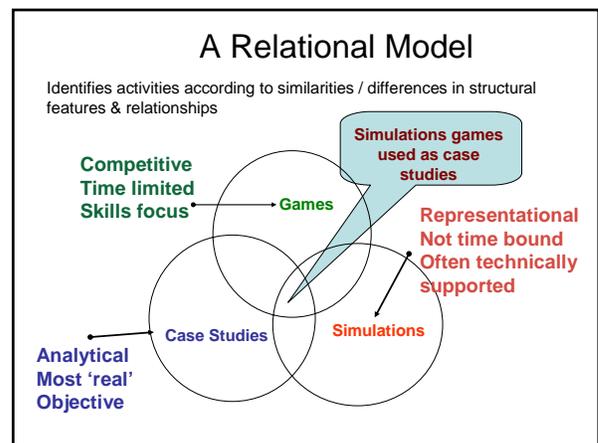
Useful for deciding about how 'real' or 'unreal' an activity might be

The diagram shows a vertical scale from 'Least abstract' at the top to 'Most abstract' at the bottom. Activities are listed on the left, and their characteristics are listed on the right.

- Case Studies
- In-Baskets / In-Trays
- Action-Maze
- Role-Playing
- Simulation-games
- Computer based games
- Technical simulators

Characteristics (from top to bottom):

- > Real information disguised
- > Mix of 'real' / structured items
- > 'Real' contexts / fictional data
- > Context / data are amalgams
- > Aspects of 'real' are extracted
- > Technology replaces 'real'
- > - ditto



A Spectrum Model

This model defines simulations and games in regard to -

1. their 'initiating proposition'
2. the predictability of the ending (one - or many - solutions)

Closed

Initiating proposition

"This is the problem -
how will you solve it?"

A puzzle - one solution

Open

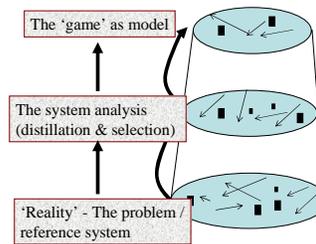
Initiating proposition

"This is the situation,
what will you do?"

*An unsolved problem -
many solutions*

How simulations and games are created

Dick Duke's Model of Design



1. The 'game' imposes a 'supra-reality'
2. Critical bits are distilled into a tightly defined 'frame'
3. Some bits of reality are reintroduced - others are not
4. 'Reality' is assessed - non-relevant aspects ignored

4 questions to create a game or simulation



- What is the **problem**?
- Who are the **learners**?
- What are they trying to **do/learn**?
- What **materials** are available?

About the Learning in Simulations



Experience

- Why is *experience* important?
- What about the emotional impact of such learning?
- What kinds of experiences do people have?



Learning

- How is a 'game' like real life?
- How does 'playing' help people learn?
- What is different about learning through play?



Power

- Who has it?
- How is it used?
- Does ownership of power change?



Facilitation Skills

- Focus on stimulating learner awareness
- Objective 'information transfer' is secondary
- 'Teacher' ego does not lead the action
- Understanding learning differences is crucial
- Capacity to wait for learning to emerge

The Dao de Jing suggests

The wise deal with things
through non-interference,
and teach through no words



*THEREFORE
THE SAGE GOES ABOUT DOING
NOTHING,
TEACHING NO-TALKING*



是以聖人處無為之事
行不言之教

Where is the 'teaching'?

- That is - who is 'teaching' whom? when?
- What is being taught?



Where is the 'learning'?

- That is - who is learning what? when?
- How is the learning being gained? gauged? moderated?

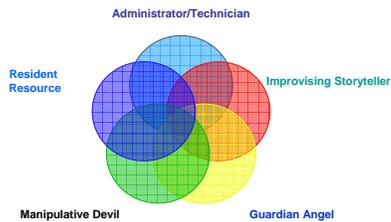


What is required of the 'Teacher'?

- Letting go of fear and embarrassment
- Shifting from
 - *pride in owning 'my knowledge'*
 - to
 - *'pleasure in 'creating and sharing knowledge'*
- Allowing one's self to be wrong
- Being able to 'lose control' of the action
- 'Teaching - no talking'
- Willingness to make mistakes
- Capacity to acknowledge them and move on



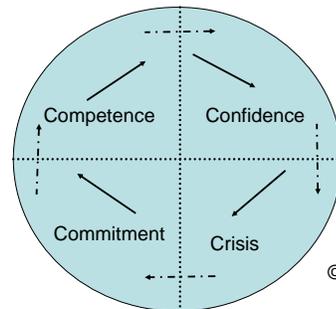
Moderator Roles



Roni Linsler, Albert Ip and Marie Jasinski The ZEN of "MOD" in online Role Play Simulations

Four "C's"

Choosing and using simulations and games



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