Transformational learning through serious games and theatre

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www.walker.ac.uk/transformations2017
Why use games for transformational learning?

These slides provide more background and theory about the use of serious games. They are illustrated with examples from The CAULDRON Game, a game about changing probabilities of extreme weather events.
The CAULDRON Game

Climate Attribution Under Loss & Damage: Risking, Observing, Negotiating

Farming Science UNFCCC

cauldron |ˈkɔldrən|
noun
a large metal pot with a lid and handle, used for cooking over an open fire.
• a situation characterized by instability and strong emotions

Designed by Pablo Suarez (Red Cross / Red Crescent Climate Centre) and the ACE-Africa Team
CAULDRON game phases

1. FARMING
   - Plant
   - Shaker
   - Harvest or loss
   - Drought or good rains

2. SCIENCE
   - Run climate model rainmaker for extra data
   - Assess whether drought risk has changed

3. NEGOTIATION
   - Produce agreement between players for managing losses from droughts

4. DEBRIEF
   - Reveal actual drought likelihood
   - Consider uses of the science in real life

**Questions:**
- Which planting strategy do I use?
- Who do I borrow beans from?
- Who do I lend beans to?
- Is the climate model accurate?
- Has my risk of drought changed?
- Are any losses attributable to climate change?
- Who is responsible?
- How will we address losses now and in the future?
- Was the actual drought likelihood as expected?
- Was that information useful in negotiating?
- Could it be useful in addressing real life loss and damage?
Engaging

• Facilitators encourage players to engage with the game, think about their decisions and discuss with others
  • e.g. stand up and shout when have a drought, shake rainmaker

• Players are animated and engaged with tasks to complete rather than just listening

• Emotional aspect can make learning a memorable experience
Active Learning

• Active learning rather than passive means participants retain new learning more readily (Harteveld and Suarez, 2015)
  • Experience changing probabilities

• Deeper learning (Suarez and Bachofen, 2013): apply ideas rather than just hearing them
  • Plant beans under uncertainty, run a climate model

• Players can learn about many elements of the game context at once
  • e.g. social, political issues as well as science
Make decisions

- Generate meaning and interpretation from making decisions and paying the consequences (Malaby, 2007)
  - Choose a planting decisions and lose beans if a drought

- Explore a range of scenarios and outcomes to better understanding processes and decisions (Mendler de Suarez et al. 2012)
  - Choose different planting strategies, negotiate with other players
Shared learning experience

- Discussion is often not possible in a traditional presentation context, or may lack engagement from participants
  - Interaction between players is vital if they are to succeed, from sharing beans during farming to reaching an agreement to address the impacts of extremes

- Share the learning experience with others and have the opportunity to see issues from different perspectives (Mendler de Suarez et al. 2012; Suarez and Bachofen 2013)
  - Act as farmers, scientists and negotiators
Time to reflect

• Reflection is a vital part of learning, but traditional presentations can leave little opportunity for this
  • Debriefings after each phase and at end

• Games are simplified versions of reality, but debriefing provides the opportunity to reflect on how it relates to real life
  • How would farmers make decisions?
  • How would negotiations be different in reality?

• Players can reflect on what they have learnt, and how that relates to the decisions they make in real life
  • How could the scientific information about climate change and extremes be useful in real life?
Games and Transformational Learning

- Gain understanding of complex decision-making processes
- Understand the perspectives of and challenges faced by others through taking on new roles
- Encourage dialogue between stakeholders - break down barriers and learn and discuss together
- Try out decisions in an environment without real-life consequences


