



Rules of Play to Balance Ideation and Decision Making in Co-Design Games

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Background and aim of study

- Design games enabling non-designer make design decisions
- Medical education center in Norway
- Aim: simulation tool resemble medical practice
- MixED design game
- Co-design workshop



What do we know?

Design games in co-design practice

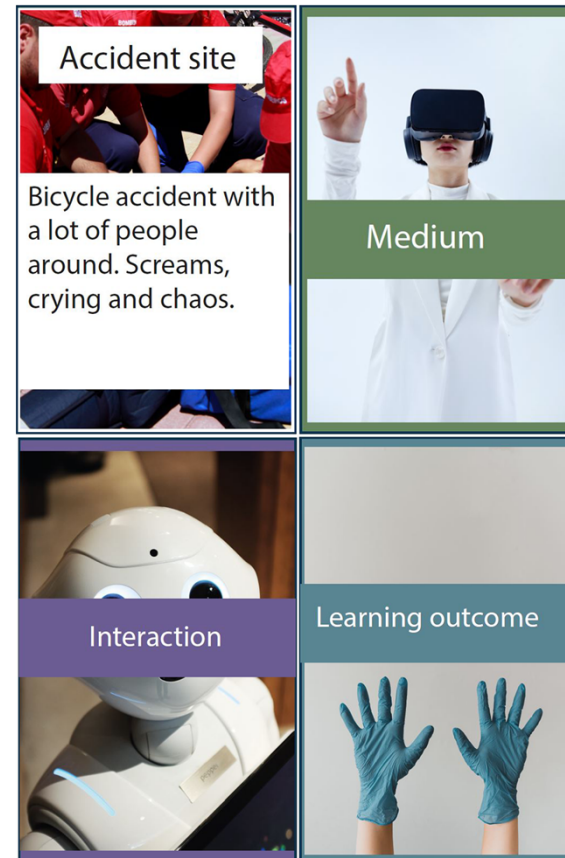
- Design tools to facilitate for participation
- User becomes co-designer
- Design games as an expressive toolkit
- Design cards as generative tool



What did we do?

The MixED design game

Category	Cards and labels
Scenario	Traffic accident, drowning accident, fire accident, home nursing, psychiatry, accident site, prison, falling accident, inside the body, overdose, heart attack.
Medium	2D images (slideshow), 2D video, 3D video, 360-video, Augment Reality (AR), Virtual Reality (VR), Mixed Reality (MR).
Interaction	Speech, gesticulating, holding objects, movement, looking, feeling, buttons
Learning outcomes	Empathy, time management, stress management, collaboration, multitasking, communication, physical skills, technical skill, confidence, focus, problem-solving, critical thinking, adaptivity, leadership
Challenges	How to perform this individually? How to perform in a group? How does an instructor fit in? There is too little time. Too small or big space. How does teamwork work? How does a marker fit in?



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Rules of Play

Four phases:

1. Individual assignment
2. Group assignment
3. Challenge ideas
4. Presentation

Individual assignment (15 minutes)	<ol style="list-style-type: none"> 1. Random draw: participants choose one card from category one to four. 2. Create a scenario using the selected cards and take notes. 3. Repeat this process three times using 5 minutes for each round.
Team assignment (20 minutes)	<ol style="list-style-type: none"> 1. Participants present their individual ideas and scenarios. 2. The team decides on one scenario to work with, either from an individual segment or by combining aspects from multiple scenarios.
Team assignment with challenge cards (10 minutes)	<ol style="list-style-type: none"> 1. The team is introduced to the challenge cards, and applies two random drawn cards from this deck to the chosen scenario from the previous phase. 2. Discuss how the challenge card impacts the scenario and make any necessary changes. 3. Repeat this process twice for 5 minutes each round.
Team assignment and presentation (50 minutes)	<ol style="list-style-type: none"> 1. The teams finalize their scenarios and prepare presentations with freedom in how the scenario is to be expressed (e.g., roleplay, video, PowerPoint). 2. Each team have 5 minutes to present their scenario, with opening for questions from other teams. 3. All teams participate in a discussion and use a dot voting system where the participants vote on their favorite idea/scenario with stickers.

The workshop

- Two hours, nine participants.
- Groups of three (one student and two facilitators or educators)
- Four phases: 1) individual assignment, 2) group assignment 1, 3) group assignment 2, and 4) presentation of concept.



Research Method

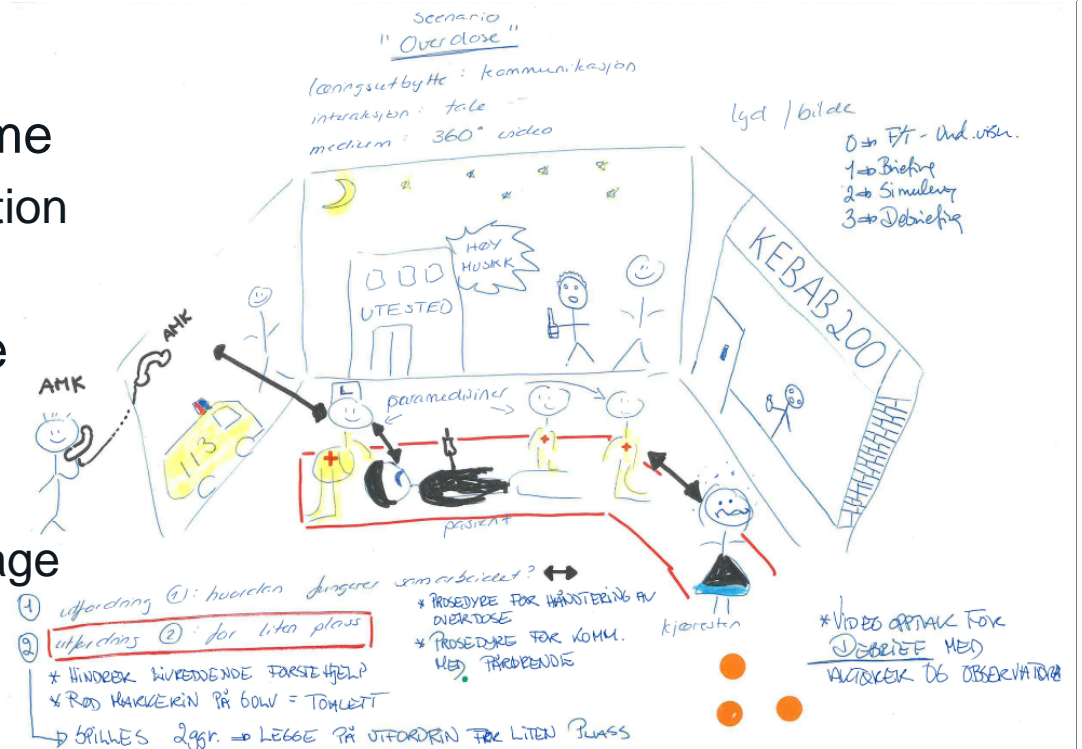
- Research through Design
- Data collection
 - Formal project meetings
 - Online workshop
 - Direct observation
 - Pilot
 - Audio recordings, photos, notes and design result
- Analysis
 - Thematic analysis



What did we learn?

Findings

- Before using the design game
 - Little structure to conversation
 - No design moves
- After using the design game
 - Provided structure
 - Constructive negotiation
 - Grounding ideas and manage expectation



Findings

1. Ability to express themselves beyond cards
2. Joint decision making
3. Make realistic decisions about technology

“This is the type of things we can make. We can create videos of emergency situations, and then students can play the roles [of patient or bystanders]” – G1.1

Reflections: Rules of the game

1. Design games helps crossing boundaries
2. Structuring collaboration and make design moves together
3. Meaningful design decisions by concretizing, understanding and evaluating concepts and ideas

Conclusion

Involve users to understand the complexity of medical work.

Design game

- facilitated for meaningful decision making
- Enabled non-designers
- Manage expectation and reflect on possibilities and limitations

