Group Project in Interaction Design Project course

My role: Designer and Developer

Task

Save the city from radiation is a game developed for an exhibition at the science center in Gothenburg called Universeum. The exhibition had the theme “Showing the invisible”.

The target group for the game is teenagers in the age 13–16 years-old and the aim is to learn about radioactivity, both the different types of radiation and which materials are blocking which type of radiation.

Core Gameplay

The game consists of five levels and the goal of the game is to, by dragging and dropping materials, block radiation before it reaches the city surrounding the radioactive source. If the radiation reaches the city limits it is game over and the player can start from level one again.

During the game, the player only has a set amount of materials that will disappear if used. Therefore, the player needs to be strategic and save the thicker materials for the more powerful radiation.

Tools used

- Unity
- Adobe Illustrator

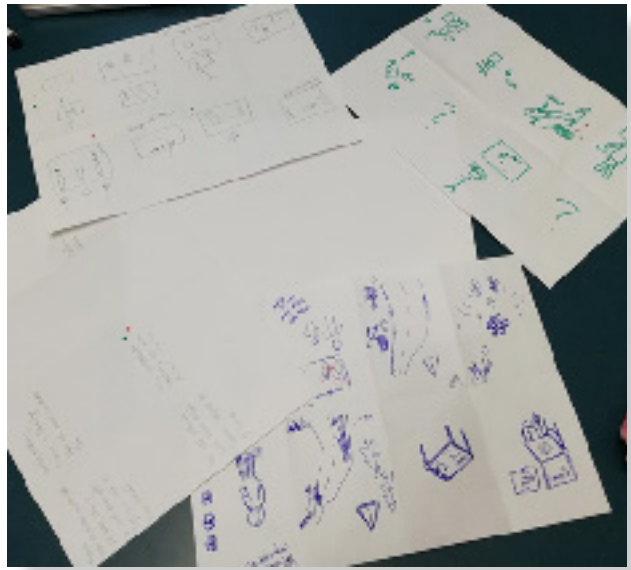
What I did

- Developing Game
- Sketching
- Gameplay Design
- User Testing
- Graphic Design (Radiation)

Design Process

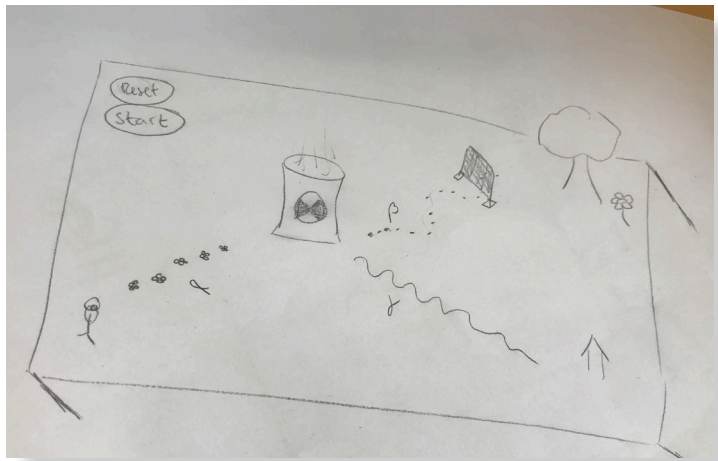
Ideation

The theme of the exhibition was “Showing the invisible”, so to come up with an idea we brainstormed things that are invisible. From all these words we chose three of them that we found most interesting. For each of these three topics, we did mind-maps where everything we could think of about that topic was added. Then, for each topic, we did a Crazy 8, and from each Crazy 8, we chose one idea to present for the whole class to get feedback.



Skewing [1] was used to develop the ideas further by using the framework “Designing Mobile Experiences for Collocated Interaction”.

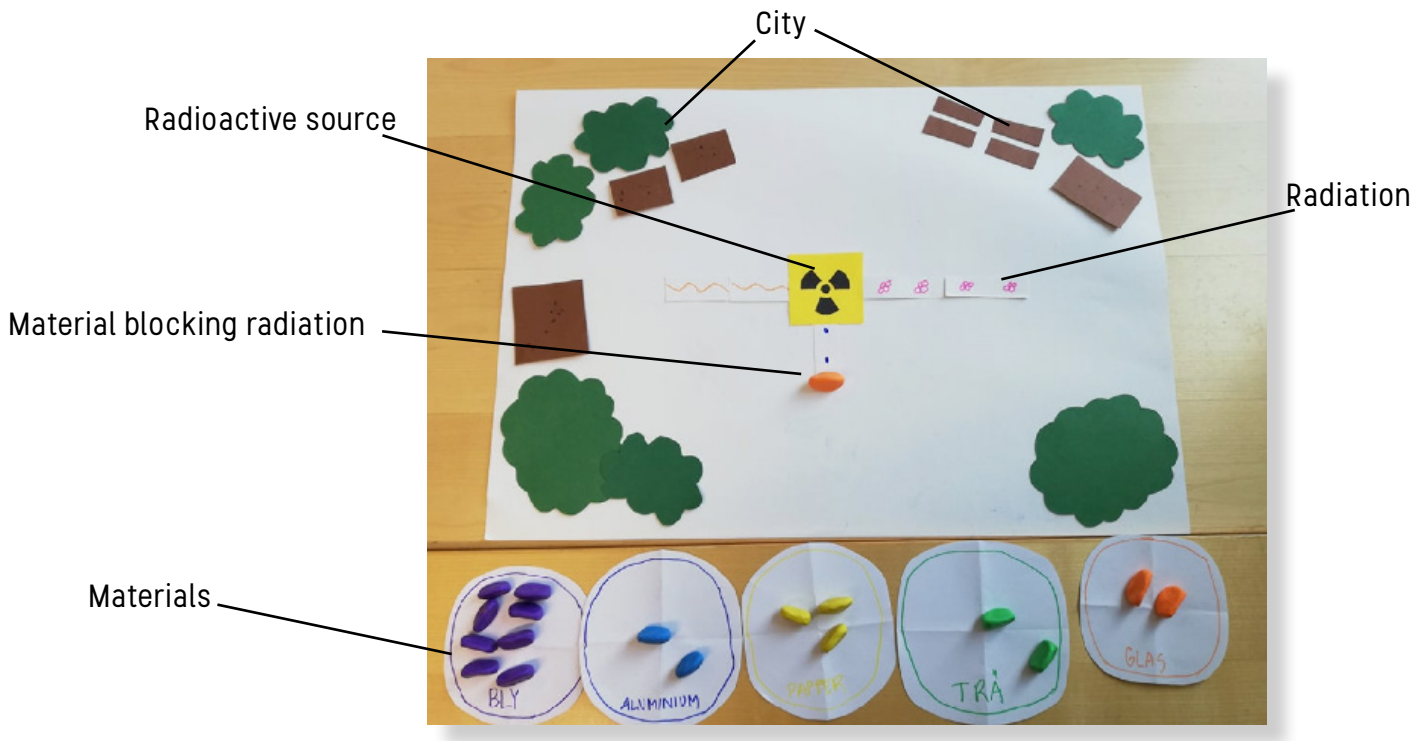
We then had a technical supervision session where we talked about how we could realize these ideas. After that supervision, we decided on the idea that would later become Save the city from Radiation. But at that point, it was an electronic table where the radiation was supposed to be shown with LED lights. We later went with a game that was controlled with a Wiimote since the visualization of the radiation would be more clear with a digital representation.



[1]Lundgren, S., Fischer, J-E., Reeves, S., Torgersson, O. 2015. Designing Mobile Experiences for Collocated Interaction. In Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW ’15). ACM, New York, NY, USA, 496–507. DOI: http://dx.doi.org/10.1145/2675133.2675171

Prototyping and User Testing

A paper prototype was made to be able to test our concept and the rules we developed.

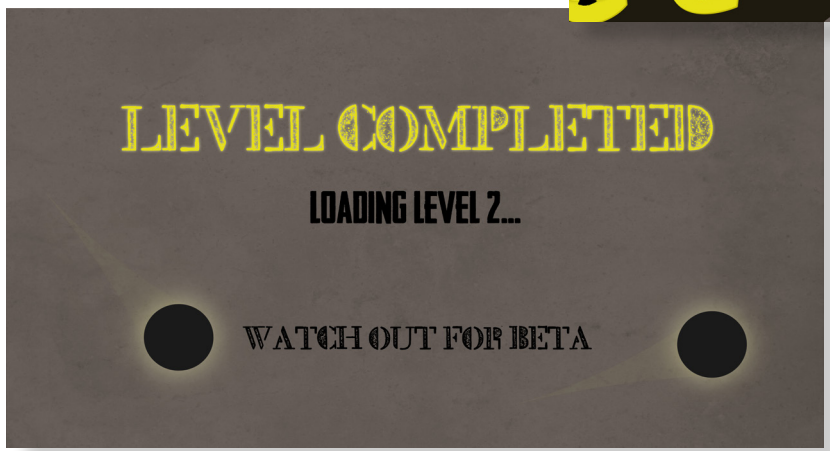


The paper prototype was first tested on classmates in the same course. These tests aimed to see if the concept were understandable and our gameplay worked. The participants tried the prototype and after a few questions were asked.

A user test with the target group at Universeum was also conducted. At this test, a group of 3–4 teenagers tested the paper prototype and afterward a few questions were asked. After the questions, the participants could try the first level of the digital game.

In total 5 groups tested our prototype with an overall good response to our gameplay. They gave some useful feedback about the digital game, for example, to have a countdown before the radiation started to spread. These changes were implemented after the user tests.

Final Design



Exhibition Set-up

Key Takeaways

- Target group not present at Universeum
- Too complex for younger children
- Not a lot of people read the “How to play”
- The game was too fast, the radiation should spread slower