## Playtesting

#### **Overview**

For our playtesting session, we managed to get 9 people to play our game. Each player played between 30 minutes and 2 hours, in which he was watched over by at least one team member.

After that, each player additionally filled out a questionnaire, consisting of questions about important aspects of our game.

To prepare for the playtesting session, we also let 2 persons play our game beforehand and gave them a preliminary version of our questionnaire. From these results, we improved our questionnaire by removing redundant questions and reformulating unclear ones.

#### **Testers**

Our group of testers consisted of three female and six male persons with an age between 20 and 26 years. 3 testers stated that they play computer or video games regularly (at least once a week), while the others stated that they play games once a month or less.

### **Evaluation**

While the opinions of the testers vary greatly on some aspects of our game, especially the graphical presentation, the feedback on other aspects was quite clear.

Most testers took little notice of the story. The general motivation of the character was known, but details were usually not remembered. This made the parts of the story that were integrated into the levels a bit confusing.

The music was mostly found to be appropriate and favorable for the atmosphere. However, some testers stated that they found the music irritating.

Sound effects were usually not noticed by the testers.

Many testers had problems of some sort with the controls of our game. The simple tutorial integrated into the first level did little help for most testers, therefore they learned the controls by trial and error or by looking into the help. The most confusing part was the selection of the boxes. We found that, even if the player doesn't understand the heuristics of the box selection, it's important that he can select a box by repeatedly pressing a single button, i.e. the selection algorithm has to loop through all boxes, which was not possible at this time.

We also found that, while testers that played video games regularly had no problem controlling the game character, inexperienced players did worse than we expected in controlling the character. One problem was that the sensitivity of the controls was too high. Another problem was physically-correct jumping behavior. Many players, when trying to jump up a ledge or the like, tend to roll into the wall before jumping, which causes friction between the wall and the character during the jump and prevents the character from reaching its maximal jumping height.

In a few cases, the testers initially had problems with puzzles because it wasn't clear which objects could be manipulated by the resize ability. This, together with the non-looping box

selection, led the testers to discard a possible solution strategy that would have worked would they have been able to resize a certain box. A similar effect happened when testers were unable to identify a box because it was not clearly distinguishable from the background or the level ground, which also happened a few times.

The time reversal ability was generally praised for making the game less frustrating. But we also saw that the amount of time the time could be reversed was too small in some cases, e.g. when a player does something that makes a puzzle unsolvable, but tries to solve it for several minutes before realizing that he has to reverse time. In such cases, the time reversal was also stated to be too slow.

As for the difficulty, the experiences were diversified. Few testers actually completed the game, but most of them reached the fifth level. Testers usually found the fifth and sixth level to be really hard, with some struggling in the fourth level. Difficulty was generally found to be increasing.

#### **Conclusions**

The biggest change we are planning to include in our game is the introduction of a tutorial level. This level will have the same level structure as the first level, but much easier puzzles. In the tutorial, we will introduce the basic game mechanics (moving/jumping, resizing, time reversal) in an understandable fashion.

By moving the game mechanics introduction into the tutorial, we will have space for a more extended story introduction within the first level. Additionally, we will revise the story to make it clearer and easier to read. If time allows it, we would also really like to enhance the story with images.

As the story elements that were integrated into the levels were sometimes quite confusing, we will revise them as well.

For players that don't like the music of the game, we will add the option to disable the music.

To improve the controls, we will reduce the sensitivity of the controls. We will also prevent friction on walls while jumping by making the jumping less physically-correct, i.e. change the friction dynamically.

We will also revise the time reversal ability, namely adjust the interval after which it records the current state, and possibly introduce an additional, faster time reversal.

Now that we know which parts of the box selection are important and which irritating, we will hopefully also be able to implement an appropriate box selection algorithm.

We will also look into the level designs. Our goal will be to make them less frustrating, but not necessarily less difficult.

# Impressions from our playtesting session





