## Game design

Our initial, main idea was for our game to be simple yet enjoyable to play. Hence, we decided to look into important principles in Game Design to support and rationalize our choices.

When looking at the families of mechanics described by Robert Zubek in his book ‘Elements of game design’, we can see that control mechanics are how player input affects the game. According to the book, in cases where the mechanics for action games are more complex, it usually results in the player feeling greater excitement towards mastering these controls. Nonetheless, **on page 54**, it is said: *"If the game’s handling of players’ actions is clunky and inhibits their performance, that will be very perceptible to the player and it will feel wrong. Even if they cannot explain quite what is wrong with the game, players may complain that the controls feel “floaty” or “mushy” or “jittery"",* implying that it should be a priority that the controls cause intuitive responses in the game that are easy to pick up and learn rather than to make them overly complicated. Thus, we have concluded that to keep our controls simple, we will only rely on the usage of mouse clicks to be able to complete the game(s).

Moreover, we rely on uncertainty mechanics when it comes to the memory card game, which is also a relevant set of techniques in game design. **On pages 61-63**, Rubert Zuzek describes shuffling as one of the well-known applications of uncertainty mechanics. He also says: "*Nonstationary processes are even trickier. The player will be challenged to try to predict the next value, which requires figuring out how the distribution changes over time, as well as remembering previous values*.". The author talks about how uncertainty, when combined with the challenge of storing information of previous values in one's memory, adds excitement to the game for the player. In our specific memory game case, the player never knows the value of the card they are going to flip unless they have done so in previous moves, but a bit into the game, they know they can come across a card which is equal to one they have flipped beforehand in another position, which would allow them to for a pair and advance in the game.

We believe it is also important to reference progression mechanics, which are those that relate to feedback on the player's performance. Rubert Zuzek, **on page 59**, describes a subtype called indirect progression mechanics: "*Indirect progression mechanics change up the game in response to the player’s progression. Very often this can be shown via environmental changes*". Furthermore, **on page 60**: "*Whether direct or indirect, progression mechanics provide important feedback to the player on how well they are doing, and they also encourage the player to keep playing.*". Though subtle (as our intention is not to stress out the player over progress), progression mechanics is present in, for instance, the successful matches in the memory card game staying uncovered so that the player can visualize how far into the completion of the game they are. Thus, we make use of indirect progression mechanics rather than direct.

We would equally like to highlight the role of affordance in our project. The concept of affordance, according to an article by Machinations cited below, refers to the relationship between the user, objects, and possible actions in the game. It is explained that strong affordances let players instantly understand what they can do in a game without the need for tutorials. With our desktop pet, we are appealing to the user's knowledge and memory about previous game experiences and their intuition. It is to expect that, once they see the animation appear on their screen, they will conclude that they must click or hover their mouse over it for more events to unfold. This happens in the mini-games as well, because we have ensured their design is simple and intuitive so that the reader is not bothered by any additional explanations.

These have been our sources, cited in APA format:

Machinations (n.d.) Affordances in game systems design. *Machinations.* Retrieved from: Affordances in game systems design • Machinations.io

Zubek, R. (2020). *Elements of Game Design.* MIT Press. Elements of Game Design (The MIT Press) 9780262362870 - DOKUMEN.PUB