**Game Analysis**

1. **Conflict/Decision Space**
2. **Tetris (puzzle)**

The new random piece may not fit into the gaps perfectly. If you don’t place the piece in the gap, you can reduce the base. If you do place the piece in the gap which is does not perfectly fit, holes may appear and make base less easy to reduce later.

1. **Starcraft (real-time strategy)**

Attack your enemies and defend yourself from enemy attacks at the same time.

Balance resources allocated to strengthen mobile units or upgrade immobile units.

1. **Angry Birds**

Player needs to shoot the birds to destroy obstacles but number of birds is limited.

Gravity and wind can affect the trajectory of the birds.

In Tetris, conflicts come from dilemma while in Starcraft they come from a combo of opponent and dilemma, and in Angry Birds, conflicts come from obstacle and dilemma.



* **Asteroid**

Positive feedback: when an asteroid is destroyed, player got scores as reward. When all asteroids on the screen are destroyed, more asteroids appear, which tells the player’s entering the next level.

Negative feedback: when the space fighter hit an asteroid, number of life decrements, which warns the player to be more careful.

* **Hearthstone**

Positive feedback: when player deals damages to opponent’s minions, they disappear or become weaker so that are less likely to deal lasting damages to the player, which makes the player try to eliminate them.

Negative feedback: when the opponent deals damages to player’s character and makes its HP under zero, player loses the game, which makes player have to play his minions at the same time to kill the opponent’s character first.

* **Counter Strike**

Positive feedback: players of the same team win if they killed all players of the opposite team, which makes them try to aim more carefully and quickly.

Negative feedback: the explosion of the bomb is a negative feedback to counter terrorist’s team and its deactivation is a negative feedback to terrorist’s team because that makes them lose the game, so they will try to avoid that.

1. **Game Systems**

* **Game objects and properties**

All the cards are game objects. They have the properties number (0~11), color (black or white), and facing direction (visible or invisible). Two jokers have an extra property that they can be treated as any number as owner players expect.

* **Behaviors in different game states**

An invisible card can become visible if its number is correctly guessed. A visible card stays visible all through to the end. A joker can be treated as any number thus be put at any position among the owner player’s cards.

* **Relationships between objects**

All cards of a player line up in ascending order of their numbers. If two cards have the same number, which means they have different color, then the black one is placed before the white one. Thus, the relationships are determined by color and number.

* **Change of property, behavior and relationship**

Assume the cards have numbers that are not consecutive or some numbers have duplicates, players cannot guessed the invisible cards based on the visible cards properly.

If the joker cannot be treated as any number, it cannot be placed wherever anymore, then the game will become less challenging.

If the cards can be placed in any order, players cannot guess the invisible cards according to their positions.

* **Break the game**

Property: all the cards can only be visible.

Behavior: an invisible card does not turn visible no matter it is correctly or incorrectly guessed.

Relationship: all the cards can be placed in any order.