

THE FLOATING SIX WORLDS

Game Design Document

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1. Introduction

Society consists of different complex groups with different ethnic, linguistic and educational backgrounds. Therefore, sometimes people cannot always understand the sadness and pain of others. In this context, learning compassion and empathy is an essential lesson for young people. This is the educational purpose for *The Floating Six Worlds*.

“COMPASSION” is core to this board game, and literally means “to suffer together.” Among emotion researchers, it is defined as the feeling that arises when you are confronted with others suffering and feel motivated to relieve others suffering, like pain and sadness.

The definition shows some keywords of compassion, these are feeling, suffering and relieving. Around these keywords, how to experience compassion and suffer together is the vital question which designers want to deliver.

In this document, designers elaborated on how compassion is embodied in the game and emphasis on the learning outcomes.

In summary, at the beginning of the design process, designers analysed the topic(compassion), and looked for a specific point to understand deeply, and made a combination and analysis between reality, meaning of compassion and play model.

Secondly, learning outcomes had to emphasise, learning through the process of design.

Thirdly, game mechanics and gameplay were methods to support the designers in designing the game rationally.

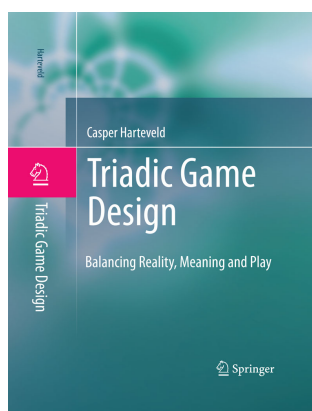
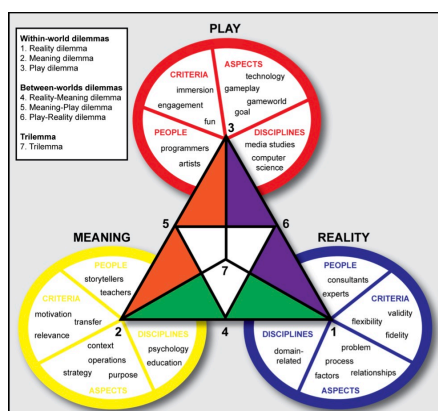
Finally, no part of this document existed independently, and each part was mutually reinforcing.

A deep understanding of the meaning of compassion and good game mechanics practices were essential in order to determine good learning outcomes.

2. Triadic Game Design

The triadic game design system has important guiding significance for game design. It helps game designers to analyse game problems rationally and advance the process of designing through three steps. The system was put forward by Casper Hartevelde in 2011.

The book called "*Triadic Game Design: Balancing Reality, Meaning and Play.*" It is written by Casper Hartevelde and published by Springer-Verlag London. The book has a deep



influence on the designing and developing serious games. The philosophy method in this book may help to understand the design of existing games and create better games.

According to this system, reality, meaning and play which have logical connections can be pointed out by designers in the game design. Reality means what is it. The description of topic and relative factors should be listed in the reality. Meaning represents why do the game. Actually, in other words, meaning means the deep understanding of the game, it always connects with the learning outcomes. And play model means how to play it. It provides some suitable playing methods to support learning outcomes.

2.1 Reality

Casper said that “The model of reality is a blue print, a conceptual model, on which the game is partly based. The model co-evolves during the development. When certain changes are made, they may very likely affect the underlying model of reality.” (Casper, 2011)

Thus it can be seen, the reality of topic decides the direction of the whole game. It is the basis of one game. It connects the problem (topic) to relevant factors and social reality.

• Description of the Problem

The Wikipedia defined compassion, said that “The etymology of ‘compassion’ is Latin, meaning ‘co-suffering’. Compassion involves ‘feeling for another’ and is a precursor to empathy, the ‘feeling as another’ capacity for better person centred acts of active compassion, in common parlance active compassion is the desire to alleviate another's suffering.”

Thus, empathy is a core to help people understand compassion. Only when people have empathy and learn to stand on others' perspectives to understand problems can they better make sense compassion.

The goal of the game is about experiencing and understanding compassion. The keywords, which players will be experienced in the board game are as follows:

- Feeling for another
- Understanding others
- Taking actions to alleviate another's suffering

Players associate with characters in the game, feel its feelings, understand events from their perspectives and feel empathy.

• Factors related to the problem

Firstly, designers make an assumption about the loss of empathy in society, and reflect on the reasons of the problem. These reasons are identified as relevant factors.

1) Critical

- Unable to experience a similar situation.
- Others' encounter cannot provoke empathy, sometime people do not care about others' suffering.

2) Environmental

- Gender: Generally speaking, women are more empathetic than men.

An essay called *Are women more empathetic than men? A longitudinal study in adolescence*, wrote by Departamento de Psicología Básica, who made a study showed that “The results confirm a greater empathic response in females than in males of the same age, differences growing with age.” Thus it could be seen women are more empathetic than men.”(Departamento de Psicología Básica, 2009)

- Age group: Adults have more social experience, they are more understanding of sad stories.
- Personality(emotion): In general, emotional people can feel others suffering easily.
- Sociological background: Different occupations and different lifestyles lead to different sensibilities.
- Education: Different levels of education means different methods to analyse problems.

• Relationship between factors

Different genders, age groups, personalities, sociological backgrounds and educations lead to different levels of compassion.

Therefore, it is crucial that players can be empowered to understand empathy during the game. It means, designers need to know how to represent empathy in the game.

• Process model

First of all, world view and backgrounds of characters help players to get into characters, and experience stories. In addition, in the process of playing, empathy can be expressed and experienced through different methods, like different event cards and ID exchange, which will be described specifically in the following parts.

• Area of intervention

Firstly, designers need to develop an in-depth understanding of empathy. Designers have a complete understanding of empathy at first, and then they can express empathy in the game. Thus the understanding is not limited to the document resources, and also can research some movies.

Secondly, thinking about the expressive methods of empathy is vital for designing, like story lines.

Thirdly, suitable forms, which deliver empathy to the players, also need to be emphasised.

Summary

Analysing the reality of the topic not only can help designers to carefully examine the topic and understand the relevant information, but also can establish a deep thinking system and clear goals for the real meaning of the game.

In terms of this game, it needs to pay attention to how to make learners experience sadness and regret, and introspect their actions. After that learners will act to their behaviours and relieve others suffering and produce empathy.

2.2 Meaning model

The next part is to analyse the meaning model of empathy. In other words, it explains why designers choose empathy to express idea and do a specific analysis of empathy and highlights the learning outcomes of the game.

First of all, around the empathy, generally speaking, designers look for an aspect which can be influential to most people, to express idea. It is the ultimate goal that urge people experience and understand empathy in the game through a specific point, like sorrow and regret.

Therefore, sorrow and regret have been targeted. Designers want to make players empathise sorrow and regret in the game. There are two reasons for this decision. Firstly, maybe, sorrow can be divided into two parts, the first is sadness and another is regret. Specifically, players will feel sad about the story world, story lines and events, and sometimes they also can feel regret about their decisions during play. In addition, sorrow is a formidable force that basically makes all human beings feel empathy. It is not limited by language or race.

In this document, the meaning model is divided into four concrete sections. They are purpose of intervention, strategy, operations and mechanisms and game conceptualisation.

• Purpose of intervention

First of all, experience and thinking are crucial point of delivering empathy (sorrow and regret). At the beginning of game, players need to get into characters through their backgrounds and story lines. Each player experiences sadness in a new environment. (it is a Role-play Game)

For example, one player draws a ID card at first, it means he or she will play the character in the game, he or she will know his or her background and responsibilities. This is the first step to learn empathy, it is a step to understand story lines.

The second purpose is analysis and introspection. In the game, different choices should be decided by players, and the results will be told in playing, so when players make decisions, they do not know the results instantly. In the process of game, regret will be experienced again and again.

For example, when a player draws an event card, and plays it, it will have an influence to hurt other characters. However, in the process of playing, he or she is likely to exchange character with the player who is hurt by him or her. At that time, he or she will feel regret.

Finally, mandatory exchange is compulsory. ID-exchange cards force players to swap characters and face more problems. It requires players to stand in each others' shoes and re-think the way they play the game.

• Strategy (models)

These strategies are theory models about empathy.

The first one is “Theory of Mind”.

Henry wrote an essay called *Theory of Mind: An overview and behavioural perspective*, said that “Theory of mind (ToM) refers to the ability of an individual to make inferences about what others may be thinking or feeling and to predict what they may do in a given situation based on those inferences. Discussions of ToM focus almost exclusively on inferred cognitive structures and processes and shed little light on the actual behaviours involved.” (Henry,2009)

This means “Theory of Mind” can help people feel and understand others behaviours. In other words, it is standing on others’ behavioural perspectives. People can understand others culture, knowledge and stories. It is also a mentalizing understanding, people can identify the mental state of others. This is the first step to produce empathy.

The second strategy is “Philosophy of Mind”.

Alvin, who wrote an essay named *Empathy, Mind, and Morals*, pointed out “I shall argue that empathy may be the key to one sector of the philosophy of mind and to several sectors of moral theory. Only one topic in the philosophy of mind is addressed here: the ordinary or naive understanding of mental states, commonly called ‘folk psychology’. The general problem is how ordinary people conceive of mental states and deploy mental-state language.” (Alvin, 1992)

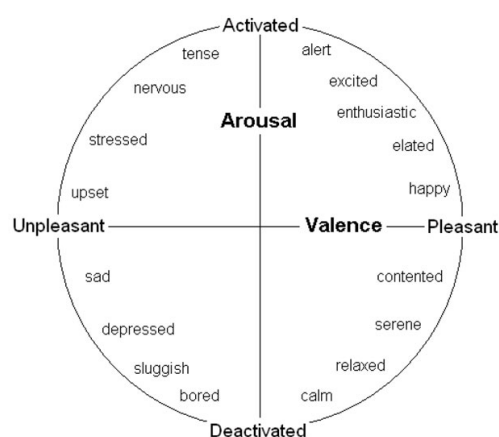
This shows, based on “Philosophy of Mind”, if it is an affective empathy, people will recognise the feelings of others, it means one person feels as another. And also people will react to situations.

It means, after understanding others’ suffering, people will react to these situations and also have different mental-state languages, it will be likely to have some ideas to remit others’ pain, it means reduce the harm to other characters, and make a balance in six characters.

• Operations and mechanisms

- Emotion valence

“Emotion valence” refers to the positive and negative character of an emotion (the positive or negative character of fear, anger, joy, etc.). In this game, because of the delivery of sorrow and regret, the valence is high activation and unpleasant.



• High activation

In term of this game, players will draw event cards or condition cards each turn and play one card. Different influences will affect the process of playing. Therefore, each player will do not know what will happen in the game, especially ID-exchange card will bring the inversion of plot. This means that some players will become another character(player) who has been hurt by them before.

Players own high activation that will make them want to play again and again, because of the unpredictability and also the game has some specific points, like ID exchange.

· Unpleasant

It means it is a sadness game, it delivers sorrow to players, and players can analyse their own behaviours during game play.

- Learning verbs

Experience — Understand — Cognise — Feel — React — Response

- Complexity and unpredictability of operational context

In the playing, players do not know the results when they make choices, and also ID-exchange card is likely to be got in the game. Therefore, lots of unpredictable situations will be met in process.

· Context of intervention

- Card game (illustration, layout design, mapping)
- Deeply experience (story world and story lines)
- Make decisions about options

· Game conceptualisation

The name of the game: *The Floating Six Worlds*

The theme of story world: Stories of Chinese myths

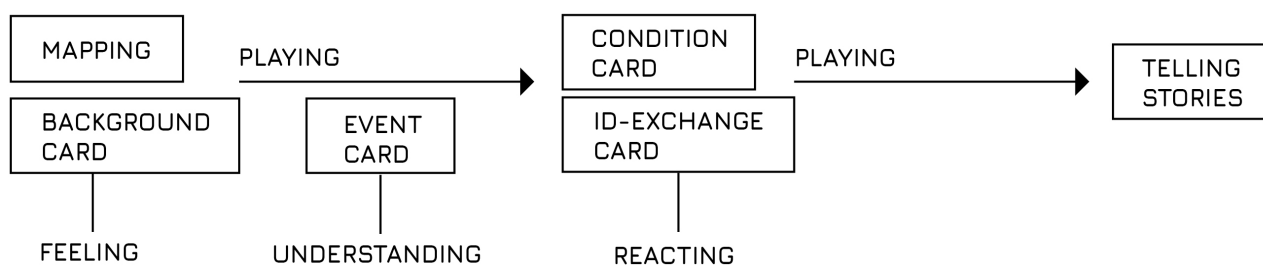
Characters: God; Immortal; Monster; Human; Demon; Ghost

Methods of expressing compassion: “Theory of mind”:

- Story world and story lines; Chinese myths are new stories for western students, so players can experience a new environment, which is meaningful to experience empathy.
- Each character has a sorrow backgrounds, it means different character has own background and responsibility.
- Condition cards — players maybe draw condition cards in playing, and need to do tasks in cards, like changing ID or pause.

Methods of expressing “Philosophy of mind”:

- ID-exchange card — players are likely to experience others’ backgrounds and stories.
- Different choices — players can analyse the situations of each character and do the suitable choices about the time of using condition cards.



Summary

Actually, meaning models are the system of learning outcomes. The idea of the game is supported by these theoretical models, and how the educational meaning can be delivered.

In the game, feeling and understanding others' suffering and also relieving others' pain are goals of learning. Actually, in a few words, the game encourages players to make a balance in six characters. Balance is a method to determine whether or not players have understood empathy.

2.3 Play model

• Goal of the game

The Floating Six Worlds

General: experiencing the process of empathy — feeling, understanding, reacting.

Specific: each character has own goal to win the game.

	Initial health	Goal health
God	34	46
Demon	34	46
Immortal	22	34
Monster	22	34
Human	10	22
Ghost	10	22

If one character wants to win the game, he or she needs to plus 12 scores in the map.

However, if one character minuses 10 scores in the map, he or she dies.

• Gameplay

- Timeline

The game is 12 turns. If no one wins or dies in the process, after 12 turns, the game ends.

- Relationships of six characters

^ God protects human.

^ God has linking relations with human. If god wins the game, human wins, and if human wins the game, god also wins.

^ Ghost has linking relations with demon. If demon wins the game, ghost wins, and if ghost wins the game, demon also wins.

^ Immortal has linking relations with monster. If immortal wins the game, monster wins, and if monster wins the game, immortal also wins.

- Resource cards

1) ID card:

Player draw one random ID card, and each ID card has character background.

2) Event cards:

Each event card has a story. The game has 90 event cards totally.

3) Condition cards:

Total: 18 Type: 3

ID CHANGE: one character' s health is too high while another is too low, the higher one will be change to the lower character. They will be partner in next turns.

PAUSE: when a character' s health is nearly to goal, will be paused 1 turn.

DRAW 2 CARDS & PLAY 2 CARDS: when a character draw two cards, he or she also needs to play 2 cards.

4) ID-exchange cards:

Total: 6 Type: 2

4 cards are space, and the remaining cards have "EXCHANGE" word.

And the ID ex-change card will be drew before the 4th, 7th and 10th turn.

- Story telling

At the end of game, every player will tell stories to others, about their backgrounds and experiences.

• Game world

- Mapping

Use a visual mapping to introduce the relationship between six characters, and make players know what is floating six worlds.

- Background cards (characters' features and backgrounds)

Each character has specific background and responsibility, so players need to read background card and establish their own game world.

- Event cards (story lines)

Each event card has a story and different influences, and different influences will lead to different results.

• Indicators of game effectiveness

Playing in the map and reading the world view and background cards can ensure each player empathise with the character's stories.

In addition, different event cards are drawn and played, it means players can experience story lines, these cards make players understand empathy.

Finally, condition cards and ID exchange cards support players in relieving others' pain. It can reflect the function of empathy.

Summary

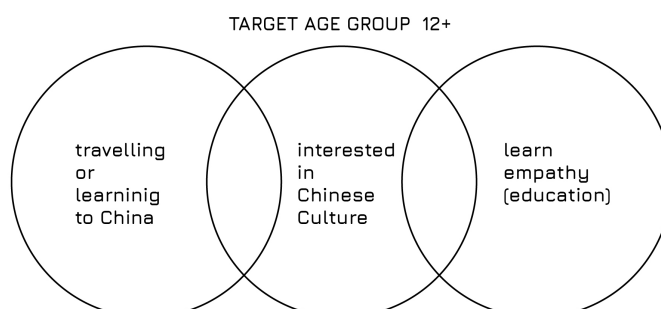
In summary, a clear process and logical thinking of game are established by analysing reality, meaning of learning and play model. Only through this step, the basic prototype of the game is established. From a designer's perspective, actually, these three modules are interrelated. Although the reality is the basis, if the meaning or play model could not deliver the reality's information, the analysis of reality is also failing.

Therefore, how to combine three modules suitably is the challenge for designers in this project.

3. Target Audience

One of the main objectives of The Floating Six Worlds was to design a highly experience game, it meant that each player could understand and experience empathy in the playing and something that both young people and adults of any learning level could enjoy and benefit from, no matter their previous experience with role-play game or board games. The target age group was 12+, because players could better understand sadness and regret. Although some research showed children aged 6–7 who experienced regret decided adaptively more often than children who did not experience regret, designers still thought the group age was more than 12 years old, because the story line of the game was Chinese myths, and appropriate educational backgrounds would help young people understand stories better.

Whilst our game aimed to appeal to a very broad audience, The Floating Six Worlds would be most beneficial to people who were interested in Chinese culture. For younger western students, the game could introduce the system of Chinese myths and help understanding Chinese culture. For students experiencing empathy, the game could help develop and reinforce the understanding of sorrow. The game could prove particularly useful to students in preparation for traveling or learning to China. It helped students to understand Chinese traditional aesthetic and traditional culture in advance.



4. Definition and Story World

4.1 Premise

The floating six worlds is a board game based on magnificent traditional Chinese cultural worldview. The worldview tells the origin and relationship of six characters. Designers want to make players experience a new environment and play new races and feel sadness and regret. The background of Chinese myths is an un-familiar topic to western students, so players can experience empathy better. In addition, it is also a systematic collation of Chinese mythology and a very good source of material for those who want to understand the mythical world.

4.2 Main story

The floating six worlds has a main story background, which contains the relationships of six characters(races) and the responsibility or goal of each race. and every race also has their own background, which illustrates the origin of race and story lines.

Furthermore, as long as some conditions are met, it is also possible to change identities among races. It is a point to enhance empathy.

4.3 Game Environment

The floating six worlds gameplay relies much more on the choices of event cards and condition cards. In fact position of a player's marker in the visual mapping determines their progress. Therefore, observing other players' positions and making decisions about hand cards are the key to success. The visual mapping is a introduction and a carrier of game.

Summary

The world story of a game is like thoughts of human. Only the game has a worldview and story lines, players can be integrated into it to promote the progress of the game, and also the game is full of vitality.

5. Instructional Design

5.1 Game mechanics

Game mechanics are constructs of rules or methods designed for interaction with the game state, thus providing game play. (Sicart, 2008)

Game mechanics can simply divided into two parts: Primary mechanics and secondary mechanics.

1. Primary mechanics in this game

Primary mechanics means basic activities in a game which players always repeat to do. (Sciart, 2008)

1.1 Drawing and playing cards

The movement "Drawing" and "Playing" cards are kinds of primary mechanics in this game. Players would draw cards and play cards in every single turn. They can achieve different goals by those mechanics through this process.



Players should draw a ID card and four function cards. (events card or condition card)

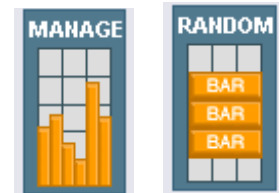
Six different ID card include six different characters are distributed to each player, giving the players their identity with unique story cards and different winning conditions so the games main game loop can begin. The drawing of the cards is random and any familiarity with the work, artist is there for by chance. Then each player should draw four cards as their hand cards(event cards or condition cards). Every events card include a story with different character as protagonist and shows the influences this card cause. With a large number of events cards and Six different character that allows an element of replayability to the game. This mechanic relates to the 'Random' mechanic brick.

2. Secondary mechanics in this game

Secondary mechanics are those core mechanic that ease the player's interaction with the game towards reaching the end state. They are either available occasionally or require the combination with a primary mechanic in order to be functional. (Sicart, 2008)

2.1 Cards management

Event card and condition card management provides a small secondary mechanic that can give players more customisation, it is also possible that event card and condition card management could provide the player small strategic advantages.

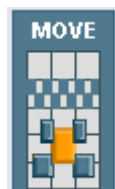


Once the player has received their identity and event cards, they should place their identity on the table and hold events cards in hand. This allows the player to familiarise themselves with their identity stories and the first four cards they draw, meanwhile manage the order they would like to use. For example; if when it comes to a player's turn, other players have played events related to this players' character(identity), the player may would like to use the events related to that player too, with the hopes of ally with he/she or reply for them movements. When player manage their cards, they are allowed to consider it carefully if those card will hurt others or how to use those card get benefits without make enemies.

This in turn corresponds to paying attention to the revealed story board, observing and thinking will help give the player an edge and effectively let them manage their cards so that they can use them more appropriate. This provide players opportunity to think about others and learn compassion gradually.

· Event cards management

After drawing their piece of cards player must using one of their hand card in each turn and read the story or influence on card. This allowed players not only move to the victory but also can they learning interesting Chinese myths. As the game progresses players will benefit from the influence that cause by event cards and gained knowledge. Attempting to increase their own property without hurting others allows the player always trying to thinking from others' position in the game, it also encourages players to engage with the movements of other players and pay attention to the chain reaction may be caused in an attempt to encourage learning compassion.

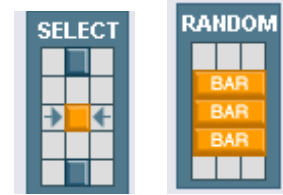


Meanwhile, players should place those cards they have already used on the table so that another players can read it in any time. One purpose of this game is let people learn about Chinese myths, and in Chinese myths there are no absolute right and wrong, every

character has their kind and evil. We are hoping that players can learn something from those myths and try to understand everyone has their own suffering.

· Condition cards Management

The condition cards request players to determine that whether the conditions are met, include their own property or property of other players. Start from the first turn, players are likely to draw condition cards. Forcing players to think about that whether the choice they have made to using some events card was right, and furthermore encouraging them to analyse the presented information (both from themselves and other players) to improve their chances of success. Condition cards provide more possibilities to players.



In terms of time these mechanics are carried out not very quickly, however those movement with empathy may generously rewarded by the game. Therefore if the player started to consider more about others they may have chance to win, but as the actual action of using cards requires significantly more time and effort of consideration than the irresistible role exchange in last stage, it is hoped that the player spend more time and energy to focus on those things they can control.

3. Mandatory ID-exchange

Mandatory ID-exchange is the action of the player exchanging their identity by timeline. When it comes to the 4, 7, 10 turns of the game the timeline board will request players drawing the mandatory ID-exchange card. The function of those cards is very simple: exchange roles between two players regardless their property or any external conditions. Players have to save themselves and ensure other races' health is not too low because they will never know when or if they have to exchange their role with others.



Mandatory ID-exchange will happen 3 times and in this process players are able to use their event cards or Condition cards too. It ensure the diversity of game result and still give their opportunity to win the game. Encouraging players to play together and communicate, the game rules told players in the very beginning that. This is a game of compassion, you should always consider about others, and some times people cannot understand others by just think about it, they should talk to each other and discuss with them in order to find a best way to win the game.

4. The end of the game

If any player can pass all the process above and still gain enough property to reach the their final goal, then they finally win the game. However, it is not the end of the game, on the other hand, it is an beginning.

5. Storytelling

After the game end (whatever there is a winner or just because it comes to the end of timeline) each player will read all stories in front of them whether it is their initial race or not. As a matter of fact, the game is designed to exchange every players identity in order to allow them really stand in others' position and consider for others. Because the story card related to races are not visible to other races, when the game comes to the end, after every player read the race's story, all players should reflect on themselves of the

movements they had done before. At the moment, everyone will know the sad story of other races and the difficulties they were facing.

This is the main purpose of the game to propagate the thought of compassion.

5.2 Game design patterns

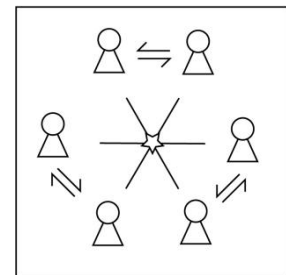
• Turn-based player interaction model

The players play against the game, but they do not need to always play against each other. Because of the ID-exchange mechanic, players are not required to make enemies with each other. In a given turn every player should draw or use cards to complete the challenge of the game, but they do not need to always play against others. Since we want people to learn compassion from our game, cooperation with others has a certain amount of importance.

• Game-based player interaction model

Because some of the races have potential cooperation possibilities, so there is not a simple adversarial relationship between each player.

And because of the game mechanics, players should communicate with each other during the game. The black lines indicate the game elements of interaction with the game itself (drawing card, using card, discussing) while the arrows show player vs player interaction or player help player interaction which over the course of the game becomes more multilateral.



6. Gameplay Loops

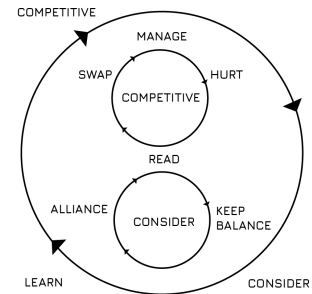
Gameplay loops strive to represent gameplay in action and provide a compelling model for the creation of a tool that is useful for both design and analysis. (Guardiola, 2016)

The general gameplay could be described in three game loops; two basic game loops embodied in a third larger and more general gameplay loop. The competitive gameplay loop carried out by the players who are more like a killer in a game (so as to maintain imposition upon other players) as 'manage' (players manage their hand cards to gain the greatest benefits), 'hurt' (players using their event card to increase their own health even if it hurts other players badly) and 'swap' (players using their condition card to swap identity with others or make others swap their identity to get benefits).

The second basic loop: the 'consider' loop refers to the actions of those players who are able to focus on the overall situation or players start to learn compassion in this game. They read stories on event cards carefully, try to keep the balance between different races to avoid the situation of no one wins, and consider to ally with others to achieve long-term interests.

The third more encompassing gameplay loop follows the progression of the game in general. Starting with the compete loop (competitive). The consider loop (consider) which is considered in a broader way in the macro gameplay loop, in that both it includes the gameplay loop 2 but also can refer to people considering what they have done in the game and what they are going to do based on previous results. Finally the learning part of the loop refers to that when players come to the end of the game, they can finally learn something (compassion) by playing the game or get through the first two loops.

When players first start to play this game, they may just want to achieve the goal on their ID cards, but when several turns later, they will gradually find out that the main target of the game is to understand others. Because when player hurting others, the retribution may coming soon because of the swap system. So, the main purpose of the game is transform the players in the first loop to the second loop.



7. Challenges

7.1 Challenging activities that require compassion

Whilst having some previous knowledge of Eastern Mythology, it is not very useful when playing this game, it is essential to win the game as the player stand in another players' position and observing other players' turns or always consider what would there be any chain events happen while they do their movements as the game progresses. It is not the main point that players getting familiar with all stories in the game, but to understand the character's or the race's difficulties and consider it. For example, if a player finds some events card they use will increase their health as a direct result and it's cause damage to other race, they should reconsider that if the race will exchange to their selves though the next stage of the game. This mechanic require players stand in others position, which develop potential compassion.

7.2 Merging of action and awareness

As previously stated, every movement and change of property of a player relate to how well a player is doing in the game and if they can reach the final goal; meanwhile the player's actions by using events card can play a relatively large role in their understanding of compassion with regards to the increment of empathy thinking. The act of the player using their event card which cause damage to others create a situation that let them feel that they are actually hurting others for their own benefits, which may cause the growing of sympathy.

7.3 Clear goals and feedback

From the player's point of view, the goal of the game is fairly simple: to increase their health or property to the number of next level; by using their events cards and ally with other races temporarily , however less consideration for others may cause the result of no one wins. The way in which you can achieve the goal directly relate to the main learning outcomes our game addresses. There is also an element of randomness in the game, however, these randomness may not bring the player closer to their own goal, rather, the results of randomness may directly relate to act the player's has done previously and providing players with immediate discernible feedback. When the other players decide to use identity exchange card they may use it to avoid failure or revenge who has damaged them, but in the third stage no one can escape from identity exchange, which tells players

that they should really think it carefully when they have choice to choose using cards or not.

7.4 Concentration on the task at hand

Players must interact with each other during every single player's turn, either by hurt each other or by help other increase their health to the purpose of potential cooperation, and the game is designed so that paying attention to other player's act is also beneficial to receiving help from others. Additionally, the design of the turns allows for a learning environment that makes players careful with string fear of failure; if a player does not consider others property in the first stage and keep hurting people, there is no opportunity to them to avoid death when the game comes to after stages.

7.5 Paradox of control in the game system

Play session feedback highlighted that a variety of possibilities of the results may be caused by different type of players and require every type of players thinking carefully before movements. And broke down any irritable or eager to victory. This kept each turn of the game gentle and makes players consider all the results may cause by their movements so that makes the game become a process that full of ponder, whilst allowing for more increase of compassion.

8. Resource Management

As mentioned above, resource management is a very important mechanic of this game.

The game provides players with four hand cards, which contains event cards and condition cards . With those cards, players will generally have some time to consider the effect those card may cause in order to deliberate what they could do to achieve the biggest benefit. The players get to choose the order in which they will using their event cards or condition cards meaning they have the freedom to hold onto more options towards the end, after they have had time to observe what movement has other players done and consider if they will achieve the goal faster. It not means players should simply hurt those people who are achieving better score but delivered a thought of checks and balances. And in this process force players to consider the situation by others position initiatively. The time of using card with different function is even more important than the function itself, which require players manage their cards careful.

No only should players manage their hand cards, they are also asked to manage their health or property, even other players' property. Playing cards is only a method that enable them to control those numbers. So the health (or property) is the root of resource.

9. Player Types

Each of the six characters in the game has their own winning goal: get 12 points to change their character to a high level. But here is a strategy: player can even change identities that meanings it may be easy to achieve their goals.

With Reference to Tracy Fullerton' s Player Types:

Achieve the Score:

Achiever / Competitor

Each player need to select one Events card to complete their own story, the point will display on the card. However, note that if one player' s score is too high and others too low, they may be change identity.

Write a story:

Director / Collector / Performer / Storyteller

The cards for this game are random, but how to choose is up to players. Players can write their own story, but each of his choice of cards will have an impact on other players and themselves, may be good or may be bad. All of these will be recorded, especially the impact of their choice, Perhaps the effect is minimal on his own vision, but once they change the characters with each other, players may look at it from the perspective of others and will experience others' story, to experience the feelings of others. "Empathy" is a key in this game. Win the game cannot give players sense of achievement, they may get more of penance, because they will see the recording that they how to hurt others at the same time.

With Reference to Bartle's Player Types:

Players try to win in this competitive game, at the same time, the decisions they made make them feel guilty, that when they increase their points they have to reduce others' points. Eventually, reading their story will find themselves feeling regretful of the harm caused to others.

Achievers

Beat the game - fulfil the game designer's goal. There is no doubt that like the winner of the game is the core of any game. They accomplish a large number of tasks, receive medals and more. The problem facing game designers for such players is that it's hard to design a game that everyone can win. If the loser in the game is likely to lose the game immediately lost interest.

Explorers

For the sake of discovering the environment and interact. Explorers love to go to every corner of the game to try, and then return to their own community or circle, announcing "I found XX!" To some extent, this experience is very objective. This game have 90 games random and 15 conditional cards, so there may be have many different result.

Socialisers

Use communication skills to interact with other players. The main purpose of this type of player game is to get social interaction. Many games designed for social players are enduring, such as domino, poker, bridge, and mahjong. Each of them is full of social experience. However, this is not to say that social players do not care about the game itself or win, and they care about success or failure. To them, the game itself is just a background, a platform for interaction with other players, and establishing long-term social relationships with others is paramount.

Killers

All gamers are killers. Players can hurt everyone by choose. They must win and some must fail.

With Reference to Nick Yee's Player Profile:

Achievement Component

Advancement: Give players a victory condition.

Mechanics: Different characters can choose, and also may change the characters in games.

Competition: Need strategy, and each player want to be first on to reach the score.

Social Component

Relationships: Players need to choose to help others, otherwise, they may face to ID-exchange command.

Teamwork: Co-working may achieve better results.

Immersion Component

Discovery: Draw a card for each round, and play a card that will affect the story direction.

Role-Play: Story development is unknown, everyone will write a unique story.

10. Motivation

With Reference to Keller ARCS:Attention

Variability: The randomness of the cards allows players to constantly make judgment.

Relevance

Goal Orientation: In order to reach the goal, players need to use compassion to help others and even hurt themselves, so they may be avoid to change ID.

Confidence

Success Opportunities: Once player understand the game mechanics, they will know that to win the game have to help others.

Satisfaction

Equity: The game initial setting is fair, although each character has different skills.

11. Conflict

In this game competition is not strong, players can choose to experience life or to compete. When one player is close to winning the game without taking into calculate the scores of other players, the player may be used to condition card, this will instantly change the ID, the value is attributed to the initial. Some cards allow players to deduct others' scores while adding their own points. The mechanism of compassion is reflected in ID exchange, which will allow the player to experience the others' life. Besides, each players may alliance with another player, help each other can to win the game. Conflicts between players and players will become less intense as the status transitions and eventually teams may be formed to accomplish a win-win situation.

12. Game Characteristics**With Reference to *Characteristics of Games*:****12.1 Length of playtime**

There is a shorter atomic length in this game, 12 turns, each player draws a card and play a card in one turn, and ID may be change in 4,7,10 turn. so it easier to achieve a pleasing experience. Time may be around 0.5 min in a single period, 3 minutes in each turn, and 40 minutes can be finished.

12.2 Number of players

Multiplayer (6 players)

12.3 Heuristics

Different level players in this game can be learn how to make effective decision and winning strategies. There are two things player should consider about. One is to evaluate their state of the game, another is what strategy they should follow.

Positional Heuristics

To know the position in the game is very important, you can see the Character Standees, they shows there they have to go on the map. Each character card has the target scores. Also you should read the world view carefully, it also has some information. Conditional card can be use once they meet the criteria. In the following rounds there will be Mandatory ID-exchange.

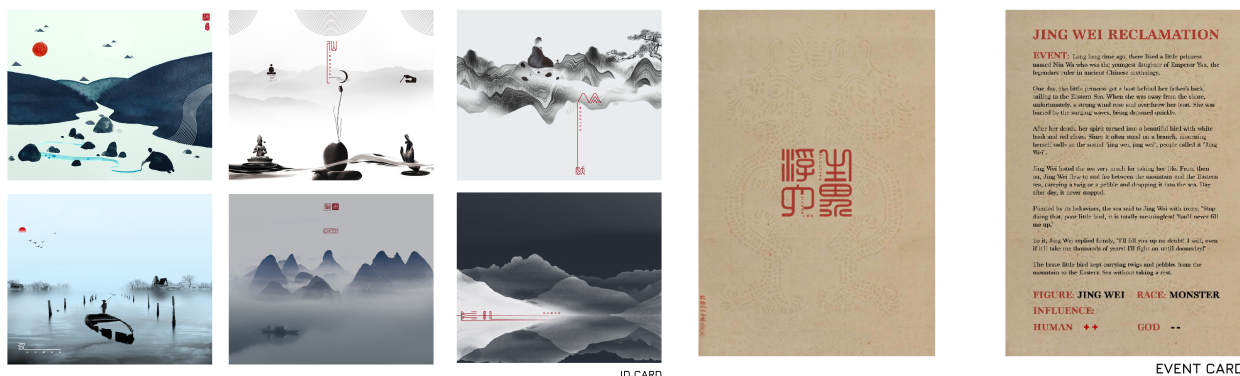
Directional Heuristics

The relationship between the characters in the story will be showed in the world view and background cards. Each event card will have plus points and minus points, when you first play it , you may choose plus points to play may achieve the goal faster. But if you have some experience in this game, you may find that you cannot hurt others too much because there have conditional card that your ID may be changed. So you cannot add your point or reduce others too much. When you play a lot, you can understand that keep balance is a safe way to avoid ID change. Help the union player can be win together. Help

others a lot may win the game. Once ID changed, you can read other's story, feel others life, empathy may be learned by the realistic environment.

13. User Interface

About the user interface, it can be divided in to seven parts, a visual mapping, ID cards, background cards, character standee, event cards, condition cards, ID- exchange cards and character standees.



14. Game Art

The Floating Six Worlds is a game linked to the Chinese traditional mythology. Designers use traditional landscape painting to introduce characters, and the relationship between characters is expressed through a visual mapping.

In addition, the feeling of Chinese landscape painting is a great visual style. While experiencing empathy, it also provides Western students Chinese mythology and Chinese visual style.

15. Conclusion

In conclusion, *The Floating Six Worlds* was using Chinese mythology as a starting point, and hoped western students could experience, understand and learn empathy in a new environment.

In the whole designing, how to express empathy was a challenge. Three methods were used to deliver the learning of empathy in *The Floating Six Worlds*. Individual characters' backgrounds and story lines were the basic method to let players take themselves into characters and felt the environment. In addition, different choices were made by players in the process of playing and had different influences, which enhanced the understanding of empathy. ID-exchange cards were pointed out in the playing, which urged players to understand others' suffering and relieve others' pain in game. If players had already learned empathy, they would take a balance about scores and made sure they could deal with everything in the playing, like exchanging ID.

Meanwhile, the randomness of the cards and the diversity of the stories improved the activation of the players and made players to play repeatedly. Also they would be interested in the stories and played again.

Throughout the entire game, a certain combination of game mechanics and meaning had already been highlighted. However, I am not sure, whether the combination is suitable or not. Thus, I felt the importance of testing the game. Testing and adjusting the game again and again is what designers are going to do next.

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17. Appendix

17.1 World view

The world is divided into six worlds, which are Gods' world, immortals' world, demons' world, human's world, monsters' world and ghosts' world.

The world was in the status of chaos, and "Pangu" was born in the meantime. Pangu's body continuously grew

and the chaotic world couldn't accommodate its body and so split. The clear air rose up to form the heaven, while the muddy air descended to form the earth. After Pangu's death, its essence, gas and soul were developed into three gods, Fu Xi, Shennong and Nuwa, who were known as "three sovereigns". The "wakan" originally hidden in the Pangu's body decomposed into "five wakan", which were water, fire, thunder, wind, and earth, scattered between heaven and earth. And Pangu's heart suspended between heaven and earth as a link between heaven and earth. The "God Tree" was generated when the clear air and the muddy air came cross and it became the source of life.

Because there was very little creatures between heaven and earth, "three sovereigns" created creatures in their particular way. Fu Xi created "god" by using the fruit - which the "god tree" fruiting by absorbing clear air from Gods' world - as a body and injecting his

own strong energy into it. Since the fruit on god tree was scarce, therefore there were only a few gods created, but their wakan is very powerful. God was not resistant of the muddy air on the earth and so lived on the heaven, with “Gods' world” created. Although there were male and female of God, but they would lose their wakan and die once they copulated to reproduce their later generations, which wouldn't help in increasing the quantity of god. Therefore, they were prohibited to copulate and reproduce.

Shennong created “beasts”(including beast and insects) by using the earth, soil, rocks, grass and trees as bodies and injecting his own power into them. Shennong concerned quantity and abilities. Therefore, there are many types of beasts in large quantity, with many different abilities but limited mental.

Nuwa created “human” referring to her own appearance with soil and water mixed, by putting her own blood and wakan into the body and with willow attunement. The bodies of human were graceful, full of wisdom, but less energy. Although they didn't have any special ability, but they had strong perception.

God lives in heaven, human live and beasts live on the earth with "ghosts' world" as a intermediate transit point for human's rebirth . It had been peaceful for tens of thousands of years. But then there was occasional conflict due to over reproduction of human and beasts.

Shennong, one of “three sovereigns”, died in the world. It is said that it died from poisoning when he tried hundreds of types of plants. It is also said that, he died from copulation and reproduction with beasts. Soon after his death, there came an extremely wise ruler, Chi You, which was one of the beasts. Chi You led the beasts to start fighting with human in order to occupy the whole world. The human beat Chi You's army with gods' assistance under the command of Xuanyuanshi. Chi You opened the channel to another world and sent the rest of the army there. They practised to become into demon gradually in their world and "demons' world" was gradually generated.

After that war, Fu Xi established a hierarchy in the name of fighting against demon and proclaimed himself as "emperor", stipulating that the position of emperor was higher than that of human beings. Human serve God and God to protect the human's world.

Some of beasts became “monster” by practice and arousing Shennong's power inherited within their bodies, while human became “immortal” by practice and arousing Nu Wa's wakan inherited within their bodies. The generation of monster and immortal was related to talent and practice, as well as the air and the earth. Therefore, there was “immortals' world” in heaven and “immortal's worth” within human's world such as ten big caves, thirty-six small cave and seventy-two blessed “fairyland”.

17.2 Six characters' backgrounds and responsibilities

1) Gods' world

Gods' world, which had been generated from the breakdown of Pangu's body, was located in heaven, which was divided into 36 floors including 4 sanctuaries, 4 brahmas, 4 arupadhatus, 18 form realms and 6 kamadhatus. God lives in it, with no physical body or desire. They have endless life, never grow old, and never copulate.

God protects the human, and if human wins the game, god also wins.

2) Demons' world

Demons' world against Gods' world, was located in the opposite world which is parallel with Gods' world, with space and time in disorder. Demons live in it with none of regulation, target or desire.

Demons have no thoughts, no desire, no birth, no death, no regulation and they are capricious. All evil from the six world can become demons.

Demon has the connection with the ghost, if ghost wins the game, demon also wins.

3) Immortal's world

Immortal's world is located in and between famous mountains, including ten big caves, thirty-six small cave and seventy-two blessed "fairyland". Immortal come from human by practice. It is the way to become god, with a long life but not endless, with bodies but boundless .

They are a group between human and god. They are respectful for Gods' world which is so far away. They don't know how many years it takes for them to reach Gods' world by practice. And they even don't know if they would be able to reach it. They look down at human's world and are not reluctant give away years of practice.

Immortal has the connection with the monster, if monster wins the game, immortal also wins.

4) Human's world

Human live on the earth, created by Nu Wa with short life. They have concept of country, social regulation and morality.

They are the most common meanwhile the most uncommon group. There's peace after wars and killing. They have motions, regulations and thoughts.

God protects the human, and if god wins the game, human also wins.

5) Ghosts' world

It is the terminal for rebirth, located within the earth, an including gate of hell, a Nai River, 6 ghosts' governments, 10 hades, 12 governing departments and 18 floors of hell.

Dead human become ghosts and then rebirth into 6 worlds. This is the destination of life as well as starting point of life. There are so many people coming in with blood and confusion, not willing to turning their life just to a meeting. They go across Nai River, drink Mengpo soup, cry the first cry of injustice after 6 rebirths, with a record marked on the stone for the debts.

Ghost has the connection with the ghost, if demon wins the game, ghost also wins.

6) Monsters' world

All beasts and plants can become monsters by practice. There are ghosts' world, immortal's world and demons' world existing on the earth, with none of regulations and tradition of "the weak falling victim to the strong". The beasts and plants without original awareness become monsters occasionally. They are anyway heteromerism, not accepted either by their species or human. They have happiness and sadness whey they get along with human. There are lots legends regarding human-monster. Some of monsters fly into sky to become god by practice, for kindness or avocational opportunity.

Monster has the connection with the immortal, if immortal wins the game, monster also wins.

17.3 Procedures

Player Procedures:

Move Phase:

- Move your Character Standee a number of spaces up to your event cards' value.

Actions Phase:

- Draw 1 card from the top of the cards stack.
- Play 1 card in your turn.
- In the 4,7,10 turn, players should be ID-exchange.

End of turn:

- Discard down to 3 cards in hand.

System Procedures:

Game setup:

- Each player chooses a Character to play.
- Each character has their initial points. Each player now place their Character Standee on their points of the map.
- Shuffle the event cards and condition cards together and deal out 3 face down to players.
- Mandatory ID-exchange cards face down to players.

Success:

- Achieve the scores and change to the high level identity.

Fail:

- Lose the scores and die.

Object of the game and game-ending conditions:

- End of 12 turns.
- Someone get their target scores.