# Love is a Queuing Game A GAME DESIGN REPORT

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# **CUE KITCHEN**

# **Game Design Report**

Submitted to the Delft University of Technology in partial fulfillment of the requirements for the course

SEN9235 Game Design Project

by

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# Chapter 1

# **Project Details**

### 1.1 Game Development: Client and Timeframe

Aimed at conveying the invisible symptoms of Parkinson's Disease through creativity and expression like arts, music, and games, the client for this project is MaySways Foundation<sup>1</sup>.

### Time frame for the project

Deadline: 31-10-2019 Finishing touches: 24-10-2019 Game elements concept: 26-09-2019 System background finished: 19-09-2019

# 1.2 Introduction and Background of the Project

### About Cue Kitchen

### Story

**Scenario:** a contemporary casual dining restaurant "Welcome at the *Cue Kitchen*. As professional chefs, you and your colleagues are responsible for cooking the meals of many hungry guests and delivering a successful service. In this cooperative game you have to cook dishes by collecting the necessary ingredients of a recipe. However, this sounds easier than it is..."

### Pitch

The game is a cooperative role playing game in which every player takes the role of a chef. The chefs have to cooperate to acquire ingredients, and use these ingredients to cook dishes.

The cooking theme is meant to be a relatable experience for all players (since it is an everyday experience for most of us). This cooking scenario aims to create a cheerful, lighthearted theme that is a suitable option to convey the burdensome, serious message (and awareness) about the invisible symptoms of Parkinson's Disease.

<sup>&</sup>lt;sup>1</sup>www.maysways.nl

### Cue Kitchen in short

The players of Cue Kitchen try to win the game by cooking dishes in order to gain as many points as possible. However, there is a catch. Each round, the players have to pick a symptom card which contains a restriction they have to execute. This constraint is related to one of the invisible symptoms a person with Parkinson's Disease might experience. Together, the players have to discover each other's symptoms and overcome them by providing cues.

This process (discovering constraints through cues) would be desirable for identifying the invisible symptoms of Parkinson's Disease in the real world situation.

### **1.3 Serious Game Problem Definition**

### **Client's Problem Definition**

Parkinson's Disease (PD) is a severe progressive neurodegenerative disorder that produces physical (motor) symptoms like tremors. However, PD is also known to generate symptoms that are "invisible" to other people who are unaware of these manifestations. These include (but are not limited to) difficulty in initiating movement (Hypokinesia), slowness of movement (Bradykinesia), tremor; (typically present in the limbs, face or tongue), rigidity of limbs or trunk, gait disturbance (i.e., shuffling, unsteady gait or small rapid steps), ocular disturbance (including impaired convergence), lack of smooth movements, postural changes including stooped posture, and impaired righting reflexes resulting in poor balance<sup>2</sup>. Since PD is a progressive and chronic disorder, the development of the symptoms is not apparent immediately.

Apart from the physical symptoms, people with PD also experience considerable psychological stress. These may arise due to factors such as increased dependency on caregivers for activities for daily living (ADAs) such as eating, dressing, showering etc. Additionally, the development and progression of symptoms invisibly to both patient, loved ones, and the caregivers, exacerbates the psychological stress due to an inability to explain and understand these symptoms. People with PD are thus often at higher risk of psychological disorders such as depression and anxiety. Patients are observed to be withdrawn, and feel increasing sense of isolation and loneliness.

# 1.4 Objectives

### **Client's Objectives**

The client wants to prevent social withdrawal and isolation in people with PD due to the inherent invisible symptoms of the disease. Being indiscernible, the symptoms are often misunderstood as a lack of will or desire. Specifically, the client wants the game developers to come about a game that increases awareness of these invisible symptoms through identification especially when it happens, and address the possibilities of helping to patient through cueing.

### **Research Objectives**

The main research objective of this particular project is to be able to produce a serious game based on the client's objective using the proper tools of game design. This means that the game should incorporate the right amount of "flow" and that the proper (game design) system analysis approach should be applied when developing the game.

<sup>&</sup>lt;sup>2</sup>Impairments in activities of daily living in Parkinson's disease: Implications for management. Bhatia, Gupta 2003

### General considerations for game design and game use

The game ideas and the design revolve around considerations that were indicated by the client during the first meeting interview. In order to acquire these considerations, the following semi-structure interview questions were asked:

- 1. What are you trying to gain from having a game?
- 2. What would be the ultimate goal of understanding?
- 3. What are the symptoms of Parkinson's that need to be known for the loved ones?
- 4. In what way is the expression of art beneficial for transferring the (un)known effects of Parkinson?
  - (a) To what extent should the expression of art be part of the game?
  - (b) If the art should be part of the game, do we use your art (or at least your style) or is it okay to create our own?
- 5. Would you like the game to be literal in that it is about Parkinson or should the Parkinson be more of a hidden layer?
  - (a) Would it be possible to have a lot of movement during the game? For example walking around (maybe focus on the "triggers")?
  - (b) Any preferences for the length of the game?
  - (c) Any preferences for the format of the game?
  - (d) Two indicated groups, which is the most important?
  - (e) What ages should be able to play the game?

These questions were answered by the clients and the elaborate answers are attached in Appendix Section 6.8.

# **Chapter 2**

# **System Analysis**

### 2.1 Triadic Game Design

### **REALITY WORKSHEET TRIADIC GAME DESIGN**

#### Theme

What theme did you pick: Parkinson's Disease (PD)

#### Focus

For the purpose of the client's brief, we focus on the role of caregivers in identifying "invisible" symptoms that cause reduced ability of the patient to take action; and recognizing that these can be overcome by giving the person with PD the right cue at the right time.

### Problem

Some symptoms that people with Parkinson's experience are visible and comparatively easier to accommodate for. On the other hand, patients experience symptoms that are not directly visible, or easy to explain.

Caregivers and loved ones, and sometimes the patient themselves too, are unfamiliar with what can be done to help when these symptoms are encountered. Furthermore, the symptoms are often perceived wrongly as a lack of will.

Once the symptoms identified, this can increase awareness and enables that they can be managed by cueing the patient appropriately. The main challenge of our project will be to develop this awareness and show the ability among the target group (TG).

#### Actors

What actors are involved? What is their role and what are the relationships between the different actors?

- Patients with PD.
- Family and the immediate social circle (close friends, colleagues, neighbours) who have a close relationship and/or high contact time with the patient.
- Other caregivers (or their representatives), including researchers, medical professionals, developers of medical aid etc.
- People in the patients' close social circle (loved ones: family, neighbours, friends, colleagues).

### System

Describe the system of your problem. Where does it start and where does it end? What aspects are involved and what aspects are not?

For the system analysis of this problem, we use a Causal Loop Diagram (see Section 2.3, Figure 2.1) to identify causal factors of the social withdrawal, and reasoning backwards to understand how progression of PD could lead from the progression of symptoms, and how they influence each other.

- Ability to execute goal oriented tasks
- Progression of the symptoms of PD
- Ability of the caregiver to recognize instances of invisible symptoms
- Knowledge of the cue-ing method and cue discovery
- Ability to support patient by correct recognition and cue providing
- Feeling helplessness
- Psychological issues: anxiety, depression
- Social withdrawal and isolation

Critical factors to prevent the isolation of the patient are identified from the system analysis. The analysis reveals how misunderstanding the patient behaviour as a lack of will creates and develops psychological stress ultimately leading to the patient's withdrawal from social interaction. Knowledge of the loved ones to identify these symptoms, and of the cue-ing technique influences the awareness of the loved ones and caregivers to intervene and support the patient, and make them feel understood.

It is important to make the loved ones experience what it is like to not have the power to take action according to what they want. Getting a glimpse about what it is to live with these invisible symptoms is an important step in creating awareness. An example from our own lives could be any example in which you want something you cannot have. Like when you are forced to do something that keeps you from doing something you would actually like to do (you have to work (for yourself, you introduced a constraint that you need to make money), but instead you would much rather play with your dog. Instead of this personally introduced constraints, in PD they are introduced by changes in the brain. However, the effects might be similar.

### Process

Being a chronic neurodegenerative disorder, the progression of PD gradually decreases aspects of the patient's ability to execute tasks invisibly. This leads to an increased perception of disinterest or unwillingness in the caregivers. Accumulation of this misunderstanding, and inability to affect change develops feelings of helplessness, frustration and shame. Over time, this leads to pychological problems such as anxiety. This process can be influenced by increasing awareness and empathy in the caregivers, and identification of helpful cues.

### MEANING WORKSHEET TRIADIC GAME DESIGN

#### Message/Value

What message/value did you pick:

We picked the following values: Awareness, empathy (be aware for pity), exploration of possible help without judgement.

### Goals/Purpose

What is or are the goal(s) IN your game? And how can these be achieved?

The goals we want to achieve in our game involve the creation of awareness of the invisible symptoms of players to prevent helplessness from an inability to perform certain actions. By literally incorporating the symptom cards in the gameplay and assigning many point to them, it is expected that discussions will start during the game play. At the end of the game a self reflection in the reality context can be performed.

### Integration

Describe how you the goals are related to the model of reality. If significant changes are made in the concept of the game (challenges, actions, story, etc.), you have to mention these here as well:

A possible strategy to integrate with reality is to put constraints and tasks in a game to put the loved ones in the shoes of the PD patient. This way, they can experience consequences of PD, especially under the circumstances that those symptoms are unknown (holding PD patients back). A game operation would be that it is only possible to achieve something once the awareness is created (Trade consequences based on information, this is similar to the cueing process in reality).

### Target group setting

For whom is the game intentioned? Students or professionals? And where, when en how will the target group play the game?:

The loved ones will be the most important target group because they are really important for the problems PD patients experience such as the social misunderstandings. This is in accordance with the desires of the client. The foundation of MaySways will accomplish the distribution of the game. The game will be played at home as a board game in the inner circle of the PD patient.

### Context

Like any other medium a game has advantages and disadvantages. For serious gaming it is especially important to embed the game within a certain context. Indicate how this context would look like.

The gaming medium involves an abstraction of reality and a relatable story line. This allows for a sensitive and gentle way to approach the emotionally significant situation patients are dealing with without accusation, embarrassment or stress. Additionally, the game medium allows for variations and expansions to accommodate different situational and transactional aspects from the real world, while ensuring that the meaning remains conveyed.

### Mechanisms

What kind of specific mechanisms (reflection, feedback, information) does the game need to have to achieve the desired goals derived from the meaning component? It's also possible to mention an example or a scenario here.

The game design should have a mechanism for players to have expectations of actions from each other for a common goal. In addition, it needs mechanisms that prevent a player from taking an expected, and self-desirous action that appear "unreasonable" to the others unless they gain insight of the actual reason.

### Measuring

Of course, it's important to know if the goals have been reached. For this reason, it's necessary to think beforehand about the issue of measuring. Describe below how this could be done.

Objectives are immeasurable within the context and purpose of this game: it can be considered successful if it manages to provoke reflection and discussion about the invisible symptoms of PD. Our game is meant to bring people together in a fun and loving way. These soft values (fun, joy, humor, quick, easy, light, low threshold) are chosen on purpose, because they lighten the topic.

### Diversity

Some players know more about A and less of B, while the opposite is true for others. Differences in players may affect the process and the outcomes of a game. Therefore, how will your game handle "diversity"?

The Target Group of players for the game can have a very wide range of backgrounds in education, familiarity with gaming mechanics, and aspects that may keep them engaged in the game play. To handle this diversity, we decide to choose a universally relatable in-game setting, and design the mechanics to be introduced in a series of short steps and visual examples.

### PLAY WORKSHEET TRIADIC GAME DESIGN

### Genre

What genre did you choose? What aspects of this genre are included in your concept? And how does this relate to the previous assignments?

The game is designed in the multi-player, cooperative genre. This reinforces that the objectives are met through understanding, empathizing, and supporting the PD patient to overcome the difficulties they encounter.

### Title

What is the title of your game? "Cue Kitchen"

### Players

Is it a single or a multiplayer game? If a multiplayer game, how many players could participate in one session?

The game is designed as a multiplayer game. In agreement with the client, this first "released" version is a four player game, with the possibility to alter the mechanics to include more players in future expansions.

### Game world

Where and when does the game take place (time period, geography, etc.)? How does the world look like?

The game takes place in a the setting of a restaurant kitchen. The players are the kitchen staff, who receive orders from the restaurant that must be fulfilled before the service ends. The players collaborate in their different roles as chefs, and perform the cooking tasks by collecting the right kind and number of ingredients.

### Story

What is the background story? What happens in the game and how does it end? NB. Every game has a story, even Tetris. If it does not have a traditional story, describe what happens throughout the game.

The game begins at the start of the cooking shift. Players play the role of the chefs. In addition each of them has special roles which only they can do. and they must cooperate with each other to achieve the maximum number of points from the dishes successfully cooked before the kitchen comes to a close. The cooperation must be achieved in the face of a secret symptom that each player has that limits them in the gameplay.

### Interaction model

How do players interact with the game? Mention in case it is digital the hardware (mouse, wii mote etc.) and in case it is analog what paraphernalia are used (dice, clock, etc.). If it is a multiplayer game, describe here how players interact with each other.

The players interact before each action they take, in order to assess the incoming orders, and to allocate of the orders among themselves based on the ingredients that they each have. Interaction is encouraged in planning, strategising, and executing the cooperative plan. Moreover, the symptoms that each player is affected by, and the cue that helps them overcome this, may be guessed from the player's behaviour at any time.

### Goal

What is or are the goals of the game? How does the player know when this goal or these goals are achieved (so, how does the player get **feedback** through the game)?

Players gain points for successfully cooking a dish to complete an order, and by guessing each others' symptoms and cues. Points are lost for orders that are accepted but not completed at the

closing hour. The points are scored collectively, and players receive star ratings based on the collective efforts. The ultimate goal in the game is to earn the highest star ratings for the "Cue Kitchen". This is only possible if the symptoms of each player are guessed correctly, which suits the hidden meaning of the game.

### Challenges

What challenges does the player need to take to achieve the goal(s)?

The players achieve their goals through planning, foresight, awareness of each others' strengths and supporting each others' personal obstacles.

#### Actions

What possible actions does a player have? What does the player use to perform these actions (what are their **resources**)? If resources are needed to perform actions, how does player get these resources?

Players have to choose orders to cook, ingredients to collect and share among each other, and finally cook the dishes successfully in action phases (the specific sequence of actions for each player is described in more detail in the Game Play section of this document.

#### Rule-based system

Give a short description of the system of the game and its rules. It is recommended to make a diagram (with blocks and arrows).

Rules are described in the Game Play section of this document.

## 2.2 Initial Statement of Objectives and Parameters

Aside from the triadic game design, a document about initial statements of objectives, and parameters for Parkinson's Disease was created. This document structure follows the steps laid out by Greenblatt in his book<sup>1</sup>. The main motivation behind the creation of this write down is that it tries to capture the overall setting of the game design. Especially in the initial phases of the game design, we think this is a crucial step.

Following Greenblatt's method, we were able to capture the subject matter, purpose, (intended) players, (intended) operators, context of use, and resources during the problem definition and system analysis phase of the process.

### **Subject Matter:**

The game is supposed to make players aware of the invisible issues associated to patients with Parkinson's Disease. These symptoms are often unknown and cause isolation of the patient, which is of course undesirable.

PD patients could lack the ability to take action whilst they would actually like to do so. Added to this lack of will-power, there are also other invisible symptoms of PD. These will be shown during the game, including the provision of possible triggers to influence such symptoms.

It is desirable to generate more empathy for people who suffer from Parkinson's Disease. A first step in this can be achieved by generating more knowledge of the "invisible" symptoms they are experiencing.

"It's more than just the shake". A deeper understanding about the disease in general in required.

### **Purpose:**

**Prevent isolation of PD patients from their loved ones.** The game is designed to serve as an awareness enhancing tool including lighthearted and fun elements, where players can learn about the invisible (neurological/ behavioral) symptoms of PD and how triggers to overcome them could be discovered. This lightheartenedness should also be reflected in the artwork and the colour choices.

### **Intended Players:**

There are several target groups in the game who have no, or only partial understanding of the scope and depth of the invisible symptoms of Parkinson's Disease. Our game intends to address the awareness issues to the following intended players of the game:

- Inner social circle (loved ones) of people with Parkinson's Disease
- People with Parkinson's Disease
- Educational setting so that audience may learn about the invisible symptoms

Size of Group: Depending on the target groups associated and the game mechanics 4-8 would be a suitable group with respect to the number of roles and actors in the game. If a PD patient is involved in playing, the group should not be too large and the game should not be too long or else it would be tiring for them.

<sup>&</sup>lt;sup>1</sup>Greenblatt, C. (1988). *Designing games and simulations*, an illustrated handbook. London: Sage.

### **Intended Operators:**

The game is currently developed by some students from SEN9235 Game Design course together with MaySways Foundation.

### **Context of Use:**

The way the game should be programmed is designed as follows:

- Gameplay introduction 10 minutes;
- Gameplay proper 60 minutes; and
- After-game discussion and debriefing around 20 to 30 minutes; (find a way to get players to do this even without a facilitator.)

### **Resources (for design):**

- Financial, for design printouts game materials will primarily be on paper.
- Materials: With respect to the financial resources, the materials produced are kept at a relatively low level. For the time being, materials used are mainly paper-based that can easily be arranged and made. The developers are planning to produce a readily available game "kit" so that the game is within reach to different target groups.

### 2.3 System Diagram



Figure 2.1: Causal Loop Diagram for the proposed game.

Relaying the invisible symptoms of Parkinson's Disease through awareness is an intangible concept. Due to this reason, the most appropriate visualisation of identifying interrelated variables is by the use of causal loop diagram. In Figure 2.1 the positive and negative reinforcing loop of the social withdrawal and isolation of PD patients is shown. The proposed game entails to address this issue by conveying positive reinforcement in overcoming the invisible symptoms through cues, and at the same time, strengthening the ability of the care-givers in understanding instances of PD patients wanting help or comprehension. Through this game, social withdrawal and isolation of PD patients.

### 2.4 Idea Elicitation (Internal)

The developers come up with a technique to elicit ideas internally by preparing one sheet of paper for each category that requires conceptualisation. In this process, the developers elicit ideas only from each other by filling up the sheets in a round robin format. This is done quietly (and timed) so that everyone can focus on what to write in each category per sheet. One sheet is prepared for the *Game name*, another one for the *Game play*, also one for the *Roles and characteristics*, then one for the *Symptoms and constraints*, and lastly, one for the *Rules and rounds*. The full result of the internal idea elicitation is shown in the Appendix, Section 6.4.

# **Chapter 3**

# **Game Elements**

# 3.1 The Meta Structure



Figure 3.1: Cue Kitchen Meta Structure.

Figure 3.1 shows the game's meta structure. Four players (called chefs) play the game until either the restaurant orders or the time card is finished. Since this is a collaborative game, there is only one group score. Depending on the group's points, corresponding star(s) are awarded to them.

# 3.2 The Game World and Game Overview

### Story

"Welcome in the *Cue Kitchen*. As professional chefs, you and your colleagues are responsible for cooking the meals of many hungry guests and deliver a successful service. In this cooperative game you have to cook dishes by collecting the necessary ingredients of a recipe. However, this sounds easier than it is..."

### **Overview**

To play this game, a group of 4 players need to earn as many points as possible by cooking recipes and guess symptoms and cues of the other chefs.

To gain points, each one of them take on a role of as a chef and start to cook dishes. In each turn, the chefs pick ingredient cards, use their special ability and/or cook a dish using their ingredients. However, each chef also has a *cue card* with a symptom and a cue: something that limits them in their play until another chef provides a cue to help him.

The service ends after all tables are served or the chefs run out of time. To see how the chefs have performed, the points are counted. Recipes are worth a number of points, depending on the number of ingredients. The points of recipes that are not finished must be subtracted. Symptoms that are guessed correctly are worth 10 points, with a 10 point bonus if all symptoms are discovered.

Once they finish the game, they are awarded 0 to 3 (Michelin) stars for their service.

After playing (at least) two times, can start the conversation about the invisible symptoms of Parkinson's disease and reflect about it.

# 3.3 Game Characters, Roles, and Special Actions



Figure 3.2: Game characters and their order of play.

*Cue Kitchen* is a standard 4-player serious game. Each player picks a character at random. Given the chosen character, each player (or character) has its own roles and special actions to take which he can use every turn. Figure 3.2 shows the game characters and their order of play. Their corresponding roles and special actions are defined as follows:

*l'Aboyeur* Pick 3 new recipe cards from the *Menu*, pick 1 you think is best and place it as an *open order* next to the *Restaurant card*. Put the other 2 under the *Menu* stack.

*le Cueilleur* Pick 4 fresh ingredients from the Pantry (so only from the *Pick* side). Give them to chefs of your choice, including yourself. Keep the hand limit in mind.

*le Chef de Cuisine* Pick as many ingredients as you like from other chefs, without exceeding your hand limit. *Le Chef de Cuisine* has an increased hand limit of +2 (8 cards instead of 6). Recipe finished by *le Chef de Cuisine* are worth -1 points.

### lle Garçon de Cuisine

- 1. Collect any ingredients from other chefs and place them as leftovers next to the Pantry card.
- 2. Give one or more of your own ingredients away to other chefs, without exceeding the hand limit. Recipe finished by the *le Garçon de Cuisine* are worth +1 points.

### 3.4 Game Setup

Prior to game play, a proper card setup shall be properly executed (Figure 3.3) in order to achieve a smooth flow of game rounds, game ending, and scoring. Thus, the following steps shall be done in order to set the *Cue Kitchen* game:

- 1. Place the restaurant card, pantry card and time card in the middle of the table. Place the time stone on the time card. Have the dice ready to use.
- 2. Shuffle the ingredient cards. Give everybody 3 ingredients to start with, put them open in front of each player as their personal stock. Place the rest of the ingredient cards in a closed stack next to the *Pick-side* of the *Pantry card*.
- 3. Shuffle the recipe cards. Place 3 recipes as *Open Orders* next to the *Restaurant card*. Place the rest of the recipe cards in a closed stack next to the *Restaurant card* as the *Menu*.
- 4. Shuffle the roles cards and give each player a role.
- 5. Shuffle the cue cards. Give one to each player without the other players seeing the symptom and cue. Place the rest of the cue cards aside, they are not used during the rest of the game.



Figure 3.3: Game setup overview.

## 3.5 In-game Objectives, Characters, Actions, and Rules

The main objective of this game is that the whole team must achieve (global) points as much as possible. There are two ways that the group can earn points. First, by cooking dishes, and second, by identifying constraints or symptoms. The following subsections discuss further these objectives, actions, and rules.

### Symptoms and cues

Each chef has a symptom, something he can't do or must do. This limits him in his game-play, unless someone helps him with this by providing the right cue.

A chef can't tell other chefs about his symptom, but the other chefs are allowed to guess the symptom and cue. If both the symptom and the cue are guessed correctly, the player may flip the Cue Card, so that every player can see the symptom and cue. The symptom and cue stays in play until the end (even after it is guessed correctly)! Section 6.3 of the Appendices lists down all the symptoms and cues up to date that can be used during the game.

### **Rounds and turns**

The play in each round are in the following order of roles: *l'Aboyeur, le Cueilleur, le Chef de Cuisine, le Garçon de Cuisine* (Figure 3.4). After each round the group has to move the pawn on the time card 1 step further.

In each turn, a player follows three steps (in order):

1. Roll a dice that determines how many cards he/she can pick

1 or 2 = 0 card 3 or 4 = 1 card 5 or 6 = 2 cards

The player whose turn is currently active can pick the top cards from the pantry, both from the 'pick' side and the 'leftovers' side, in the order he wishes to choose.

If a player have reached his hand limit of 6 ingredient cards (or 8 if he is the *le Chef de Cuisine*), he cannot pick any new ingredients.

- 2. The player may use his special skill that corresponds to his role.
- 3. The player can cook a recipe using the necessary ingredients from his own stock.
  - Move the recipe from the *Open order* side to the *Served order* side of the *Restaurant* card.
  - Place the used ingredients underneath the recipe.
  - Place a coin on an empty table on the *Restaurant card*.
     Note: Each player is required to roll a die and pick ingredients unless he has already reached his hand limit. Both using his special skill or cooking a recipe are optional actions.

### Rules to keep in mind

- The hand limit of 6 ingredient cards (or 8 in case of *le Chef de Cuisine*) can never be exceeded, not even during the turn itself.
- The actions in each turn have to be played in order: picking an ingredient card, performing the special action, and finally cooking a recipe.



Figure 3.4: Roles and their hand limit.

- Both the symptom and the cue must be guessed correctly.
- Symptoms stay in play until the end, guessed or not.

# 3.6 Concluding the Game: Ending and Scoring

No matter how fun a game is, it still has to end. The following subsections discuss how this game ends and how scoring & earning (Michelin) stars should be.

### End of the game

The game can end in two possible ways:

- 1. When placing a pawn on the last empty table on the Restaurant card. The chefs have served every table!
- 2. When placing the pawn on the last clock on the Time Card, this is directly after the 4th round. The chefs have run out of time!

### Scoring

Count all points

- Count all point of finished recipes (remember the +1 and -1 points of *le Chef de Cuisine* and *le Garçon de Cuisine*).
- Subtract all points of open, unfinished orders.
- Add 10 points for each symptom that is guessed correctly.
- Add 10 point bonus if all symptoms are discovered.

### Less than 15 points:

Everyone can cook, your speciality is a technique known as: a little burnt flavour.

**Between 15 and 35 points:** \* You know your way around the kitchen, but so do some rats... Keep trying!

**Between 35 and 60 points: \*\*** Haute cuisine is your middle name, well done!

*More than 60 points:* \*\*\* Even Gordon Ramsay is jealous of what you achieved.

### Playing more than one time

It is advisable to use and read the *Debriefing Guide* when the game is played at least two (2) times. Note that there are two different debriefing guides (see Section 4.4): Guide 1 when playing the game *without* a player with Parkinson's Disease and Guide 2 when playing the game *with* a player with Parkinson's Disease.

## 3.7 Time and Social Interaction

The game ends in 5 rounds if restaurant orders aren't finished. This total number of rounds is playable roughly in at most 30 minutes. Due to the cooperative nature of this game, player interaction could cost extra time due to group strategic discussion in earning points. Also, social interaction is inherent to this game due to its cooperative nature. Identifying cues and constraints allows players to engage with each other since this is a vital component in earning points.

# 3.8 Accounting System

Every dish accomplished is kept by the player who cooked it, so that at the end of the game, they can account for all the plus and minuses inherent to their roles. Furthermore, the constraint cards guessed shall be kept open in order to account for the correctly guessed constraint card(s). The global points shall be determined when time is up or orders are finished (see Figure 3.3).

# 3.9 Indicators, Symbols, and Paraphernalia

Players can refer to the **Turn** card shown in Figure 3.5a. This card facilitates a good reminder on how should they act during their turn. The **Round** card shown in Figure 3.5b assists players in reminding the proper sequence of the game. Figures 3.6 up to 3.15 are the dish cards that can randomly appear in the order with their corresponding points. Pizza calzone is worth 7 points, carrot cake is worth 4 points, eggs are worth 2 points, pasta bolognese is 7 points, soup is 5 points, hutspot has 2 points, fries with mayo is 4 points, marshmallows are 2 points, cow's tongue is worth 5 points, and haggis is 5 points.



(a) Card reference for making a turn.

Figure 3.5: Card reference for acting during a turn and determining the proper game sequence in a round.



Figure 3.7: Eggs

Figure 3.9: Pasta Bolognese



Figure 3.11: Hutspot



Figure 3.12: Marshmallows



Figure 3.13: Fries with Mayo



Figure 3.14: Cow's Tongue



Figure 3.15: Haggis

# Chapter 4

# **Game Play**

## 4.1 Pre-game

In both formal and academic scenario, a 5-minute presentation can be used to deliver the game instructions to all players. The presentation should include the game goal, overview, game rounds, game turns, character roles, and constraints. It might still be the case that participants will have ambiguities during this phase and this can be further addressed during the actual game play.

# 4.2 Game Facilitation

The game is intended to be played without a facilitator. Using only the manual (see Section 6.1), the game should be a stand-alone game. In optional circumstances, a facilitator can provide some assistance, provided that he/she already has a proper level of knowledge on how the game works. Facilitating can help in organising rounds and turns to enable a smooth game play. Some groups can have a chaotic behavior when left alone to play a (cooperative) game. A facilitator can be helpful in this sense. However, the game manual alone should provide comprehensive, sufficient instructions on how *Cue Kitchen* is played.

# 4.3 Post-game

Scoring is the first necessary thing that needs to be done right after the game play. Given the group's score, a proper number of (Mitchelin) stars should be awarded to the group. They may arrange the game set right after or the group can proceed to play another round depending on their time availability. A second game signifies the idea of introducing a debriefing phase when the group opt for a second "match". From there, debriefing should follow afterwards.

# 4.4 Debriefing

Two debriefing guides are made depending on the the group. A game-play without a player who has a Parkinson's Disease can use Debriefing Guide 1 while a game-play with a player who has Parkinson's Disease can use Debriefing Guide 2. The following subsections addresses the questions needed to be laid out during the debriefing phase.

### Debriefing Guide 1: Gameplay without a player who has Parkinson's

We hope you enjoyed this game as much as we did designing it! Although our game should be fun, it has an underlying seriousness. It actually is a *serious game*, which means that you have to do a debriefing: some discussion about what went on in the game and how it relates to reality. Discuss the following questions with each other and read the text below.

Question 1. How did you experience the symptoms and cues on the symptom cards?

Question 2. Was it hard to play with your symptom?

Question 3. Was it hard to guess the symptoms and cues?

Question 4. If your symptom and cue were guessed correctly, how did you feel?

Question 5. How did the game improve after a symptom and cue was guessed correctly?

### The invisible symptoms of Parkinson's Disease

Parkinson's disease (PD) is most well known for its visible symptoms: tremors and slow movements for example. However, a person with PD also has invisible symptoms that influence them and their behaviour. The symptom cards in the game are meant to let you experience the feeling of having such hidden symptoms and how you can help someone by providing the right cue.

One of the invisible symptoms of Parkinson's Disease is the 'lack of willpower'. This means that a person with PD is having trouble with initiating all kinds of actions, such as going to the gym or answering a text. It is not that *they don't want to*, but because of their illness, they are actually *not able to want to*. This can affect their social life, for example in maintaining relationships, or keeping appointments with their loved ones. Therefore, it is important that the loved ones of people with PD know this and take initiative to help them. For instance, pick them up, the same day every week, to drink coffee together or go to the gym. You might have noticed this need for structure in the game as well. There is a reason why the order of actions is fixed.

If you have anyone in your social circle with PD, you can help them by keeping the following four things in mind: be patient, don't judge, take initiative and ask questions. Most people with PD have an open mindset and are not afraid to talk about their illness and how you can help them with it. Naturally, be respectful, especially if they do not want to discuss their illness.

By being aware of the invisible symptoms of Parkinson's in real life, just like in the game, we can help each other. Together we can make our lives better.

There are some empty *symptom cards* in the game. Everyone has some constraints in their lives. Perhaps you can think of some more constraints and cues that relate to your own situation?

### Debriefing Guide 2: Gameplay with a player who has Parkinson's

We hope you enjoyed this game as much as we did designing it! Although the game should be fun, it has an underlying seriousness. It actually is a serious game, and that means that you can do a debriefing: some discussion about what went on in the game and how it relates to reality. Discuss the following questions with each other and read the text below.

Question 1. How did you experience the symptoms and cues on the symptom cards?

Question 2. Was it hard to play with your symptom?

Question 3. Was it hard to guess symptoms and cues?

Question 4. If your symptom and cue was guessed correctly, how did you feel?

Question 5. How did the game improve after a symptom and cue was guessed correctly?

### The invisible symptoms of Parkinson's Disease

Parkinson's disease (PD) is most well known for its visible symptoms: tremors and slow movements for example. However, a person with PD has also invisible symptoms that influences them and their behaviour. The symptom cards in the game are meant to let you experience the feeling of having such hidden symptoms and how you can help someone by providing the right cue.

The purpose of this game is to create awareness of the invisible symptoms of Parkinson's Disease (PD) and facilitate an open conversation between people with PD and their loved ones. It should contribute to a safe environment in which the player with PD can talk about their invisible symptoms and how they can be supported.

If you feel this safe environment, you can start a conversation about the invisible symptoms the player(s) with PD experiences, the effect it has on their social life and how their loved ones could help them with this. Naturally, be respectful, especially if they do not want to discuss their illness.

If you don't feel this safe environment, or need some inspiration for the conversation, feel free to read the Debriefing Guide 1.

There are some empty *symptom cards* in the game... Perhaps the player(s) with PD can think of some more constraints and cues that relates to their own situation? Maybe the loved ones have some constraints of their own they would want to share. Together, we can make the lives of ourselves and our loved ones better.

### 4.5 Evaluation

The game developers conducted an evaluation survey after the first formal game play of *Cue Kitchen*. Four main questions were asked which relates to the following:

- Level to which the game is liked (in blue) from not very much (1) to very much (7)
- Understanding of the game rules (in orange) from very difficult (1) to very easy (7)
- Level of complication of the game (in gray) from complicated (1) to simple (7)
- Fun while playing the game (in yellow) from not so much fun (1) to so much fun (7)

In this survey evaluation (Figure 4.1), 73% of the players liked the game very much (highest rating) and 60% of the players had much fun (highest rating) in playing the game. In game rules understanding, 60% of the players gave both high ratings (very easy - 6 and 7). One result that could be seen as undesirable, is that the survey results give us a hint on the complicatedness of the game. The game turned out to be more complicated than expected, only 20% of the players find the game simple. However, simplicity is not always desirable, the complicatedness of the cueing mechanism is important because this is difficult in reality as well. Several players said they actually liked the complicatedness of the game. Some valuable comments, suggestions, and reactions can be found in Appendix Section 6.7.



Figure 4.1: Survey evaluation result for *Cue Kitchen* game.

# **Chapter 5**

# **Future Work**

### More variable amount of players

For future work, it be worthwhile to make the game playable with more players by adding and balancing out other roles. An example of this could be the *Le Legumier* shown in Appendix Section 6.6, Figure 6.10.

Furthermore, there are also situations imaginable in which there are only two or three players available. For these situations the crucial role of *L'Aboyeur* should remain in play and the balance should be different.

### **Change of Symptoms**

During our gameplay, we actually noticed that our game could be applicable for multiple situations in which constraints play a role. For such different situations, different constraints could be more suitable. It could also be worthwhile to develop more symptoms or constraints in different themes related to PD. This would ensure the game keeps a fresh element.

The blank symptom cards are already beneficial for this.

### **Recipes and Ingredients**

To keep the game fresh and interesting after multiple rounds, it could also be beneficial to create editions with different recipes and ingredients.

# Chapter 6

# Appendices

# 6.1 Game Manual

In order for a (physical) game to be complete, a physical manual should be available. It is an important component that should not be missed when playing a game. For the *Cue Kitchen*, the subsequent page is the attached game manual that should be laid out to the players prior to game play.

# **MENU-al:**

# **Cue Kitchen**

### Welcome to the Cue Kitchen.

As professional chefs, you and your colleagues are responsible for cooking the meals of many hungry guests. In this cooperative game you have to cook dishes by collecting the necessary ingredients of a recipe. However, this sounds easier than it is...

### Game overview

Earn as many points as possible by cooking recipes and guess symptoms and cues.

To gain points, you all take on the role of chef and start to cook dishes.

In each turn, the chefs pick ingredient cards, use their special skill and/or cook a dish using their ingredients. However, each chef also has a symptom card with a symptom and a cue: something that limits them in their play until another chef provides a cue to help him.

The service ends after all tables are served or the chefs run out of time. To see how the chefs have performed, the points are counted. Recipes are worth a number of points, depending on the number of ingredients. The points of recipes that are not finished must be subtracted. Symptoms that are guessed correctly are worth 10 points, with a 10 point bonus if all symptoms are discovered.

Once you finish the game, you are awarded 0 to 3 stars for your service.

After playing (at least) two times, you're ready to start the conversation about the invisible symptoms of Parkinson's disease. Open ingredient cards Closed ingredient cards

### Setup

Place the restaurant card, pantry card and time card in the middle of the table. Place one playing stone on the yellow clock on the time card. The rest of the playing stones are for the restaurant card. Have the die ready for use.

- Shuffle the ingredient cards. Give everybody 3 ingredients to start with, put them open in front of each player as their personal stock. Place the rest of the ingredient cards in a closed stack next to the pickside of the pantry card.
- Shuffle the recipe cards. Place 3 recipes as open orders next to the restaurant

card. Place the rest of the recipe cards in a closed stack next to the restaurant card as the menu.

- Shuffle the roles cards and give each player a role.
- Shuffle the symptom cards. Give one to each player without the other players seeing the symptom and cue. Place the rest of the symptom cards aside, they are not used during this round.

### Symptoms and cues

Each chef has a symptom, something he can't do or must do. This limits him in his gameplay, unless someone helps him with this by providing the right cue.

### Rules to keep in mind

The hand limit of 6 ingredient cards (or 8 in case of le Chef de Cuisine) can never be exceeded, not even during the turn itself.

Restaurant

- The actions in each turn have to be played in order: picking an ingredient card, performing the special action, and cooking a recipe.
- Both the symptom and the cue must be guessed.
- Symptoms stay in play until the end, guessed or not.

A chef cannot tell other chefs about his symptom, but the other chefs are allowed to guess the symptom and cue. If both the symptom and the cue are guessed correctly, you may flip the symptom card, so that every player can see the symptom and cue. Even after a symptom is discovered, the symptom and cue stay in play until the end!





- 52 ingrediënt cards
- 36 recipe cards
- 36 symptom cards
- 4 role cards
  - 4 reference cards
  - 1 pantry card
  - 1 restaurant card
- 1 time card
- 6 playing stones 1 die
- Debriefing Guide 1 & 2
- Pantry card Time card Left-overs Pick Pantry Open recipe cards Restaurant card

**Closed recipe cards** Menu







### Rounds and turns

In each turn, a player follows three steps (in order): 1) Roll a die to determines how many cards you can



You can pick the top cards from the pantry, both from the pick-side and the leftovers-side, in the order you choose. If you have reached your hand limit of 6 ingredient cards (or 8 if you are le Chef de Cuisine), you cannot pick any new ingredients.

2) You may use your special skill (see Roles and special skills).

3) You can cook a recipe using the necessary ingredients from your own stock.

- Move the recipe from the open order side next to the players role card.
- Place the used ingredients underneath the recipe.

Place a playing stone on an empty table on the restaurant card.

le Cueilleur

the

### Roles and special skills

#### l'Aboyeur

Pick 3 new recipe cards Pick 4 fresh ingredients from the menu, pick the from the pantry (only one you think is best and from place it as an open order Give them to chefs of next to the restaurant card. your choice, including Put the other 2 under the limit in mind. menu stack.

### End of the game

- The game can end in two possible ways:
- 1) When placing a pawn on the last empty table on the restaurant card.
- The chefs have served every table!

2) When placing the pawn on the red clock on the time card, this is directly after the 4th round. The chefs have run out of time!

Note: The game finishes at the moment when a playing stone is placed on the last table on the restaurant card or the last (red) clock on the time card. A game never has more than 4 rounds.

### Scoring.

instead of 6).

Count all point of finished recipes

le Chef de Cuisine

like from other chefs, but do not ex-

ceed your hand limit. You have an

increased hand limit of +2 (8 cards

Recipe finished by

-1 points.

- (remember the +1 and -1 for le Chef de Cuisine and le Garçon de Cuisine). Subtract all points of open, unfinished orders.
- Add 10 points for each symptom that is guessed correctly.
- Add 10 point bonus if all symptoms are discovered.

Less than 15 points:

Everyone can cook, your speciality is a technique known as: a little burnt flavour.

Between 15 and 35 points: You know your way around the kitchen, but so do some rats... Keep trying!

Between 35 and 60 points:  $\star \star$ Haute cuisine is your middle name, well done!

More than 60 point:  $\star\star\star$ Even Gordon Ramsay is jealous of what you achieved.

### When you played the game (at least) 2 times, you can read the Debriefing Guide

Note that there are two different debriefing guides: Guide 1 when playing the game without a player with Parkinson's Disease and Guide 2 when playing the game with a player with Parkinson's Disease.



Play each round in order of roles: l'Aboyeur, le Cueilleur, le Chef de Cuisine, le Garçon de Cuisine. After each round you have to move the stone on the time card 1 step further.



Note: You are required to roll a die and pick ingredients, unless you have already reached your hand limit. Both using your special skill or cooking a recipe are optional.

Pick as many ingredients as you 1) Collect any ingredients from

le Garçon de Cuisine

other chefs and place them as left-

2) Give one or more of your own

ingredients away to other chefs, with-

Recipe finished by the le Garçon de

Cuisine are worth +1 points.

overs next to the pantry card.

out exceeding their hand limit.

### yourself. Keep the hand le Chef de Cuisine are worth

pick-side).

# 6.2 Debriefing Guide

After the game play, the group can choose either Debriefing Guide 1 or 2 depending on the players requirement(s). This section attaches the Debriefing Guide 1 and 2 for the *Cue Kitchen* game.



### When you played the game without someone with Parkinson's Disease

We hope you enjoyed this game as much as we did designing it! Although our game should be fun, it has an underlying seriousness. It actually is a serious game, which means that you have to do a debriefing: some discussion about what went on in the game and how it relates to reality. Discuss the following questions with each other and read the text below.

### Questions

Question 1. How did you experience the symptoms and cues on the symptom cards?

Question 2. Was it hard to play with your symptom and why?

Question 3. Was it hard to guess the symptoms and cues and why?

Question 4. If your symptom and cue were guessed correctly, how did you feel?

Question 5. How did the game change after a symptom and cue was guessed correctly?

### The invisible Symptoms of Parkinson's Disease

Parkinson's disease (PD) is most well known for its visible symptoms: tremor and slow movements for example. However, a person with PD also has invisible symptoms that influence them and their behaviour. The symptom cards in the game are meant to let you experience the feeling of having such hidden symptoms and how you can help someone by providing the right cue.

One of the invisible symptoms of Parkinson's Disease is the 'lack of willpower'. This means that a person with PD is having trouble with initiating all kinds of actions, such as going to the gym or answering a text. It is not that they *don't want to*, but because of their illness, they are actually *not able to want to*. This can affect their social life, for example in maintaining relationships, or keeping appointments with their loved ones. Therefore, it is important that the loved ones of people with PD know this and take initiative to help them. For instance, pick them up, the same day every week, to drink coffee together or go to the gym. You might have noticed this need for structure in the game as well. There is a reason why the order of actions is fixed.

If you have anyone in your social circle with PD, you can help them by keeping the following four things in mind: be patient, don't judge, take initiative and ask questions. Most people with PD have an open mindset and are not afraid to talk about their illness and how you can help them with it. Naturally, be respectful, especially if they do not want to discuss their illness.

By being aware of the invisible symptoms of Parkinson's in real life, just like in the game, we can help each other. Together we can make our lives better.

There are some empty symptom cards in the game. Everyone has some constraints in their lives. Perhaps you can think of some more constraints and cues that relate to your own situation?



# Cue Kitchen: Debrief guide 2

### When you played the game with someone with Parkinson's Disease

We hope you enjoyed this game as much as we did designing it! Although our game should be fun, it has an underlying seriousness. It actually is a serious game, which means that you have to do a debriefing: some discussion about what went on in the game and how it relates to reality. Discuss the following questions with each other and read the text below.

### Questions

Question 1. How did you experience the symptoms and cues on the symptom cards?

Question 2. Was it hard to play with your symptom and why?

Question 3. Was it hard to guess symptoms and cues and why?

Question 4. If your symptom and cue was guessed correctly, how did you feel?

Question 5. How did the game change after a symptom and cue was guessed correctly?

### The invisible Symptoms of Parkinson's Disease

Parkinson's disease (PD) is most well known for its visible symptoms: tremor and slow movements for example. However, a person with PD has also invisible symptoms that influences them and their behaviour. The symptom cards in the game are meant to let you experience the feeling of having such hidden symptoms and how you can help someone by providing the right cue.

The purpose of this game is to create awareness of the invisible symptoms of Parkinson's Disease (PD) and facilitate an open conversation between people with PD and their loved ones. It should contribute to a safe environment in which the player with PD can talk about their invisible symptoms and how they can be supported.

If you feel this safe environment, you can start a conversation about the invisible symptoms the player(s) with PD experiences, the effect it has on their social life and how their loved ones could help them with this. Naturally, be respectful, especially if they do not want to discuss their illness.

If you don't feel this safe environment, or need some inspiration for the conversation, feel free to read the Debriefing Guide 1.

By being aware of the invisible symptoms of Parkinson's in real life, just like in the game, we can help each other. Together we can make our lives better.

There are some empty symptom cards in the game... Perhaps the player(s) with PD can think of some more constraints and cues that relates to their own situation? Maybe the loved ones of the patient have some constraints of their own they would want to share.



# 6.3 Constraint Cards

This Appendix section attaches the full list of constraint cards up to date. The blank ones indicate that a playing group can add their own constraint cards (as relatable to the game play as possible) when they feel necessary in order to induce fun or difficulty in the game play.

Cannot: Cook and perform your special ability at the same time.

Unless: Someone reminds you. Cannot: Pick up tomato cards.

Unless:

Someone gives them to

you.

Cannot: Pick up meat cards.

Unless: Someone gives them to you.

Cannot: Pick up potato cards.

Unless: Someone gives them to you. Unless:

Someone hands you

the dice.

Cannot:

Start your turn.

Cannot: Ask Le Garçon de Cuisine for ingredients.

But: Can accept or decline ingredients when offered.

Cannot: Remember your special ability. Cannot: Remember when it is your turn. Cannot: Speak or listen to the person with the role of L'Aboyeur.

Unless: Someone reminds you what you can do. Unless: Someone reminds you.

Unless: L'Aboyeur says: "please do not ignore me". Cannot: Pick up flour cards. Cannot: Pick up carrot cards. Cannot: Pick up egg cards.

Unless: Someone gives them to you. Unless: Someone gives them to you. Unless: Someone gives them to you.

Cannot: Cook. Cannot: Speak. Cannot: Roll the dice.

Unless: Someone tells you exactly what ingredients are needed to cook a dish with. Unless: Someone specifically asks you for your opinion. But: Someone else can roll it for you.

Cannot: Speak or listen to the person with the role of Le Cueilleur.

Unless: Le Cueilleur says: "please do not ignore me". Cannot: Speak or listen to the person with the role of Le Chef de Cuisine.

Unless: Le Chef de Cuisine says: "please do not ignore me". Cannot: Speak or listen to the person with the role of Le Garçon de Cuisine.

Unless: Le Garçon de Cuisine says: "please do not ignore me". Cannot: Play a fair game. You cheat by picking too many ingredients.

Unless: Someone tells you not to cheat. Cannot: Listen to other players. When someone asks you to do something, you do the exact opposite.

Unless: Someone asks you to please listen to them.

Cannot: Accept it if person with the role of Le Cueilleur does not give you any ingredients. You get sad in this case.

Unless: Le Cueilleur kindly explains to you why you do not need them.

Cannot: Hand cards to other players.

Unless: Someone specifically asks to hand over a card.

Unless: Someone specifically asks to hand over the dice. Cannot: Work together. You claim all ingredients for yourself and want to cook all dishes.

Unless: Someone asks you to work together as a team.

Cannot: Remember the order of your turn. You for example first want to cook, and then grab ingredients.

Unless: Someone reminds you of the order of a turn.

Cannot: Play a fair game. You do not stick to the hand limit.

Unless: Someone tells you not to cheat.

Unless: Someone reminds you which ingredients are required.

Cannot: Hand over the dice to other players.

# Cannot: See which ingredients you have. You will try to

cook every turn using

the wrong ingredients.

Cannot: Use any ingredient or recipe names when you speak.

Unless: Someone reminds you of their names.

Cannot: Accept it if the time pawn gets placed forward. You try to convince other players to not make this happen.

Unless: Someone reminds you this is part of the game.

Cannot: Play a fair game. You cook dishes without the required ingredients.

Unless: Someone tells you not to cheat.

Cannot: Stop playing with the dice. Even if it is not your turn you keep on holding on to it.

Unless: Someone asks you to give them the dice.

Cannot: Accept it if someone else wants to cook a dish. In this case you get angry.

it is part of the game to cook dishes as a group.

Cannot Accept it if person with the role of Le Cueilleur does not give you any ingredients. You get angry in this case.

Unless: Le Cueilleur kindly explains to you why you do not need them.

In the difference of

Cannot: Accept it if someone else wants to cook a dish. In this case you get sad.

Unless: Someone reminds you it is part of the game to cook dishes as a group.

Cannot: Cannot: Listen to what other You cannot pick or ask players tell you. You do exactly the opposite.

Unless: Someone repeats what they were saying.

for ingredient of a type that you already have.

Unless: Someone gives it to you.

# Unless: Someone reminds you



# 6.4 Idea Elicitation Outcome

This Appendix section attaches the full outcome of the (internal) idea elicitation for five major categories in developing this game. The categories elicited are *Game Name*, *Game play*, *Roles and characteristics*, *Symptoms and constraints*, and *Rules and rounds*.



# H 10 SEPT. 27





2) ARAMARA Game play (How to make a dish) -> Combine ingredients (TOOLS - Change turns every round -> Use receptes -t probability that you cook is burnt / cooked well. randomness through dice? -> Actors have tools (skills + Ingredients have to be found & picked + Each actor moves cooking process by 1 step + Goal = deliver correct order to customer -- Finishing a dish, you need a cue to finish



# SEPT-27

Roles and characteristics 1 Chel (several specializations) (maybe onlyane with the recépies Gerocery boy 2 Start the game 3 Announ ceur Dish washing Boy 4 S. Eater 6. Priest all roles have their own abilities & tools to work these 7. Doctor 8. head chef could more choose recepes holes have characteristics



SEPT. 27





# SEPT. 27



# 6.5 Ingredient cards and other paraphernalias

This section puts all the other remaining cards available in the *Cue Kitchen* game kit. Section 3.9 already introduces the **Turn** card, the **Round** card, and the dish cards. This section puts the ingredient cards (carrots, eggs, flour, meat, potato, and tomato) to visibility together with other card paraphernalia such as time card, pantry card, and orders.

### **Ingredient Cards**



Figure 6.1: Carrot



Figure 6.3: Flour



Figure 6.5: Potato



Figure 6.2: Eggs



Figure 6.4: Meat



Figure 6.6: Tomato

### Time Card, Pantry, and Orders Card



Figure 6.7: Time card







Figure 6.9: Restaurant orders card

## 6.6 Future Work: Incorporating a new character



Figure 6.10: Fifth character of *Cue Kitchen* for future work.

# 6.7 Survey Result (Raw)

This section attaches the survey result evaluation from the players who played *Cue Kitchen* game. This raw attachment is includes some valuable comments, suggestions, and reactions from the players.

Mark only on	u like our game? ne oval.
2	1 2 3 4 5 6 7
Not very muc	ch O O O Very mu
How easy is Mark only on	s it for you to understand the game rules?
	1 2 3 4 5 6 7
Very difficult	O O O O O Very easy
Complicated	fun did you have playing the game?
Mark only on	ne oval.
	1 2 3 4 5 6 7
Not so much	
Comments/s	Suggestions/Violent Reactions? xD
Cord use	Rends + Mole sympthom

Wark	<b>did you lil</b> only one c	<b>ke our ç</b> oval.	game?	2					
	έ. <sup>α</sup>	1	2	3	4	5	6	7	
Not v	ery much	Õ	C			$\bigcirc$	$\bigcirc$		Very muc
2. <b>How</b> Mark	easy is it i only one c	<b>for you</b> oval.	to und	erstand	the gan	ne rules	?		
		1	2	3	4	5	6	7	
Very	difficult	$\bigcirc$	$\bigcirc$	(Cer	$\bigcirc$	$\bigcirc$		$\bigcirc$	Very easy
4. <b>How</b> Mark	much fun only one c	did yoi oval. 1	u have	playing	the gam	ie? 5	6	7	
	o much fui	n C							So mu
Not s					~ ~				
Not s	ments/Su	ggestio	t XCF	ent Rea	ctions?	хD			



•	How did you like our game? Mark only one oval.	
	1 2 3 4 5 6 7	
	Not very much 🔿 🔿 🔿 📿 Very mu	ıch
2.	How easy is it for you to understand the game rules? Mark only one oval.	
	1 2 3 4 5 6 7	
	Very difficult O O Very easy	
	Mark only one oval. 1 2 3 4 5 6 7 Complicated O Simple	
	Mark only one oval. 1 2 3 4 5 6 7 Complicated Simple How much fun did you have playing the game? Mark only one oval	
	Mark only one oval. 1  2  3  4  5  6  7 Complicated O O O O O O O O O O O O O O O O O O O	
	Mark only one oval. 1 2 3 4 5 6 7 Complicated Simple How much fun did you have playing the game? Mark only one oval. 1 2 3 4 5 6 7 Not so much fun	uch

Powered by

. How did you Mark only one	<b>like our</b> oval.	game?		- · ·	$S_{\rm BF} = N_{\chi}$				
	1	2	3	4	5	6	7		
Not very much	n C	C	$) \subset$					) Very much	
. <b>How easy is</b> i Mark only one	<b>it for yoι</b> e oval.	ı to und	lerstanc	the ga	me rule	s?			
	1	2	3	4	5	6	7		
Very difficult	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$		$\bigcirc$	Very easy	
Complicated	1	2	3	4	5	6	7	Simple	
Complicated . <b>How much fu</b> <i>Mark only one</i>	1 In did yo	2	3	4 ()(()) () the gar	5 	6	7	Simple	
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# 6.8 Meeting Transcript and Brainstorming Ideas

Note that the transcripts of the meeting are not neatly presented, they were solely used as a means for ourselves. Nonetheless we wanted to included them for completeness sake.

### Meeting Date (with the client): September 11, 2019

PD: strange disease, the neurological change in our society is still a taboo. Physical complaints such as tremors are acknowledged but forgetting things, or difficulties finding words get different reactions from people.

Medical care is very much geared to the technical side of things. There is very little understanding for the changes that are not seen, such as emotions. These are not always bad things, it can be impractical but it can be beautiful as well in the way of expressing things like love from a different perspective.

The foundation is meant to improve the quality of life of the patient to make people aware of these mental changes. This is also important for health neurologist Bas Bloem you can treat people in a technical way, but as long as there is no care for the "soft" aspect of the disease people are unhappy and they do not feel the same. It is a physical change in the brain that makes them look different at life, these changes could lead to addictions (things that feed the reward system) or other behavioural triggers. Health care is not able to deal with this, operations and medications are needed in order to function. But the medication takes away the tremor but it also adds unwanted aspects (trade-off of the side effects of the medication).

Because the non-physical aspects are badly understood, people can become isolated. There is not much knowledge about it yet, however, it is getting more and more attention. It is becoming more known now because lots of patients are speaking up. "Who am I question?" health care should address this question that patients have.

Shortage of will power is disturbed by PD. Ad Nouws (psychologist): Not being able to initiate action (pouring a cup of tea). Mysterious, not natural and makes people reliant on others. They do not necessarily want to do less, they make plans that do not result in activities. Difficulties in starting actions (instead of not wanting to act, not being able to want to act). The power to will does not function properly. Starting a conversation can be difficult, joining in can be easier (Especially when asked for an opinion). This might be perceived as disinterest whilst the patient would have actually liked to join. Postponing something that you have said to do, and are not doing, will seem like an indication that you do not want to do it. Whilst actually the patient simply cannot decide to do it.

It is hard for people to switch. If someone has an argument, a healthy person can calm down by them self. But the PD patient keeps the anger, so a trick is to trigger them by taking them outside, change the perspective and thus the state.

Physical: slurring in speech. Freezing.

It would help if people at least knew about this principle of will power. People are not informed about this and it such an important symptom that affects relationships of PD patients. Communication about what people would like would help. Pick up for appointments for a set time and date. It is not that the PD patient does not WANT it, they just cannot make themselves do something. *Make people aware that this is going on, gain understanding*.

The capacity of the brain to be *triggered* into some new, unpredictable action is very strange. People should be made aware of that. Experience these triggers in the game would be nice.

May is an architect. Work now is too stressful, stress is a huge trigger. And it requires her to make decisions that are more difficult with the PD. It is not the choice itself, it is the mechanism.

Make people aware of the mechanism of this trigger.

### Questions:

### Would it be important for the game to learn people to trigger someone?

Yes, to help PD patient into action. Especially all the things that cause friction with other people, the sense that the patient is disinterested is not true. Teach players how to check someones triggers ("you need to wave to the player to respond"). Look into tips and tricks and how to find triggers. Trigger better writing by making comments or with a specific pen, writing only possible for May in drawings, not on a note. If she thinks about an image she can write. Another trigger to move or to write is to think about big things. (Huge steps, huge letters, to prevent making the small movements). Singing to yourself or counting can also help.

#### Specific about PD or keep it more hidden layer?

Does not have to be, but it is maybe easier. We need to make this decision. The mechanism is what it is about. The understanding of neurological problems can be misinterpreted or misjudged if you just go by what you see.

Game being informative can work. But there should be an added value. Let people deal with the problem during the game, and not only being aware. Think about invisible changes in neurology.

### Who will be the targeted audience?

Start with the people around the patients (people who feel insecure around their family and loved ones, which is a horror).

Really improve the situation of people whose behaviour is changed, this is difficult to deal with for both the patient and the loved ones.

#### Is this game something that the patient also plays with the loved ones?

Maybe yes. It can involve the patient, finding the triggers. The PD patient are flexible to survive.

The art could be a game element to trigger a response. We can use Mays art but also our own.

Experience, cells die off, another perspective is that new connections are made.

### Meeting Date: September 19, 2019

- Discussion on systematic graphs and its relationships

- Basic things factors, process, elements for the problem:
- Make the System Diagram Patient, Loved-ones, Invisible Symptoms
- Document the process of arriving at a certain point in the Game Design process
- Awareness, Symptoms, Cues, for the loved ones.
- The effect/experience due to this symptoms

- The awareness of the influences that these invisible symptoms affect the social interaction towards PD patients

- Loved ones can experience somehow of these symptoms
- Experience role playing, asking questions,
- Actual identifications of symptoms, effects,
- Cueing debriefing
- User manual debriefing?
- Client: contact with the patients, loved ones, etc
- Debriefing important in learning the game
- Only when you properly debrief then that's the time you think deeply. It's powerful

Game inspiration to check:

Card Game - Go Fish style, Card point system

Values: fun, happy, humour, light, simple, easy, low threshold, easy peasy,

Soft values: lightness, happiness,

Strategy: - constraints and consequences, to be in the shoe of the PD patient - Lack action points/trade action points for something else - Hiding and revealing : information - Related consequences - Start the use of invisible symptoms (start of the game)

Operations and specific mechanisms: Achieve something that is only possible once awareness is achieved

#### Meeting Date: September 26, 2019

Cooking with Parkinson concept: We have 6 roles, each with their own abilities, they need to create dishes using ingredients.

Cooking because it is a day to day task.

Patients have a lack of ability to take action, we want to show how this lack can feel through our game mechanics. Through collaboration and working together, we can together show that this lack of will does not have to lead to isolation of the patient. We cannot change the lack of will, but the loved ones can help the patient to deal with this.

Despite the fact that competition can be fun and immersive, it can invoke a negative feeling.

Game of Jeffrel: you are not allowed to speak, but together we have to make as many combinations as possible to get points and you can still throw away or eat cards. The more elements / recipes you complete as a group, the more money you earn.

Focus on the cueing: we cannot give exact, real cues, they differ for each person. However, we do want to show what cueing can do and how working together with the patients and providing cues can help make their lives easier. For this we want to show the mechanism of cueing. So the player really wants to do something, but without the cue, the player cannot perform the action.

So, only with a cue you can perform actions. For example in the cooking sense: you might need a pan, or salt and pepper that you cannot get like the ingredients. For example: throw a die. The cueing should be cooperative.

One option would be to have a pile of constraint cards of which every player needs to secretly pick one.

There are 2 debrief elements: We want to let players experience the limitations that can occur due to the lack of power to take action as is known for PDs. Together with cueing from other players, the limitations can be fixed. This brings us to our second debrief element; We also need to discover the limitations to be able to provide cues. This will open-up communicatie about the limitations PD patient experience in real life so that the loved ones can help them with cueing, just like in the game.

#### Meeting Date (with the client): October 9, 2019

Work left for the deadline 31 October: - think about dishes (points) and about ingredients (how many) - think about constraints/symptoms - balance game - think about clear structure (landing cards, table cloth) - make rule book (debrief) - ingredients I have now (can change of course)

Invisible symptoms PD: - how to deal with these symptoms raise awareness among loved ones.

Design choices: - analogy, no actual game about PD (because this can cause negative emotions and a heavy subject) - cooking: relatable, fun, the lightness and positivity is important. But make sure that the PD does not disappear, still make sure that it is clear why we do something. - invisible symptoms part (someone has something they do not know) - cueing: players cannot achieve something without help - cooperative games: working together with your loved ones, instead of competing and possible negative emotions related to this. - provide a range of end scores and levels (good score to bad) in the booklet to show how well you do. - complicated french names: funny, trying to pronounce them is fun - make the dishes a little bit funny (Gordon Ramseys beef wellington) - fire, rats in the kitchen, special events. Also deal with unexpected things. - not only the cooking, but also the deeper layer has relatable parts, the PD just has them magnified. - have lots of constraints (e.g. 50) (they can be really strong, refuse to speak to the chef the cuisine) - board in the middle to visually hold everything together

What we have in the game already: Constraint(s): you can only talk when directly being asked, the constrained remains, but once the cue is known, the constraint remains, but the players now know how to deal with this.

Thought: how to improve the game to make it closer to actual PD?