

# Capstone Project: Cognitive Tear Down – Shuwan Huang

## Step 1: Choose a game

PokemonGo

## Step 2: Analyze the game

1. Pokemon Go is a game that uses the GPS and camera of mobile devices to allow users to catch Pokemon. **It is simple to play, learn and understand.** To play it, users will physically walk around and find Pokemon, catch them, and battle with other players. The user interface is simple enough that users can construct a robust mental model at their First User Experience. (M1)
2. The user interface is also very **engaging**. As users go to more places physically, they will discover many different kinds of Pokemon. More detail will be added to their mental model as they catch more Pokemon and get to higher levels in the game, which makes a user interface engaging. (M2)
3. The cleverly managed response time in catching Pokemon, combined with a carefully crafted trajectory trace (the flight path of the poke balls), solves the problem of **error correction**. (M3, M4) The users will learn from experience with the system to improve their performance in catching Pokemon.
4. Compelling stories and content that induces “**compulsion loops**” drive users to keep coming back for more participation. (B4) Pokemon Go’s compulsion loop is simple:
  - 1) Collect stuff to catch Pokemon
  - 2) Collect Pokemon
  - 3) Level Pokemon

## Step 3: Come up with a new game

## Step 4: Write up your new concept

## **Step 5: Generating many ideas**

### **1. Eating speed control**

- a) Help users to eat more slowly by sending reminders. Send reminders to users before each meal to remind them of some simple but useful tricks to eat more mindfully. For example, remind users to feed themselves with their non-dominant hand, to chew 25 times (or anything over 20) per bite, to put down utensils between bites of food, etc. Users can set the time when they will receive the reminder, to make sure they get it right before the meal. They can also modify the content of the reminder, to receive only the tricks that they tend to forget without being reminded.
- b) Play slow and mellow music while eating. Prepare music of certain length for users to play during meals. Users can set the length of music that they'd like to listen to while eating, for example, 20 min for lunch, 10 min for breakfast, etc. If users finish eating while the music is still playing, then they will know that they have eat too fast. To help users develop a slow eating habitat, we will record the time that users spend at each meal and make a visual curve of habitat development over a period of time for users to see if they have become better at eating slowly.
- c) Have a great conversation with friends will help users slow down their meals. This can be achieved by setting up a random conversation online with other users who also want to develop a better eating habitat. Users can set their preference of people that they'd like to have conversation with, like the gender, the range of age, etc. If users don't have any preferences, the system will randomly pick a user and set up the conversation. Users don't need to worry about privacy while using this app, because the only things they share will just be some general information and they can choose not to share anything as well. Users won't be able to see the photo and other detail info of the person that they are talking to. Users will be rated after the conversation by the one that they had conversation with. The users with low rating will not be able to pair with other users again. The length of conversation is set by users and agreed by both side so that it will be ended after the meal unless both users decide to continue the conversation.

## **2. Education – English learning for non-native speakers**

- a) Provide a platform for users to practice oral English by repeating and mimicking conversation in popular TV shows. At the very beginning, users are provided with a small number of episodes of some popular TV shows. They can watch the video then try to mimic the conversation in the show. Their recorded conversation will be rated by the system. They will have the access to more episodes only when their score passes a satisfactory line. The TV show selected should be compelling so that users are motivated to practice speaking English in order to get a higher score.
- b) Help users learn English by singing English songs. To sing a song, users need to spend a certain number of coins to download the song. New users only have 3 free songs to listen to and practice singing. They can try singing the song in the app and get rated by the system to gain coins. The amount of coins obtained is dependent on how well they sing the song. They can also get coins by publishing their recorded song to get likes from other users. The more likes they get, the more coins added to their account. When users get enough coins, they will unlock more songs.
- c) Help users build vocabulary by making study plan and generating fun tests. Users can set the study goal in the app, for example, 100 English words a week. The system will make a detailed study plan accordingly and generate daily tests to promote learning. Users can take the tests as many times as they want. They will need to get an average grade of 90% to achieve the goal in the given time. There is one idea of the fun test – given a screen full of square blocks that are labeled either an English word or the meaning of a word, users will line the squares up to cancel both squares. This is similar to the Mahjong game but with different labels. The quicker all squares are canceled, the higher the score.

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