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Master's Thesis  
Academic Year 2016

BookLucky:  
Design of a Gameful Travel Planning Service

Keio University  
Graduate School of Media Design

Zhou Jiahui

A Master's Thesis  
submitted to Keio University Graduate School of Media Design  
in partial fulfillment of the requirements for the degree of  
MASTER of Media Design

Zhou Jiahui

Thesis Committee:

Professor Naohito Okude (Supervisor)  
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Professor Ichiya Nakamura (Co-supervisor)

Abstract of Master's Thesis of Academic Year 2016

BookLucky:  
Design of a Gameful Travel Planning Service

Category: Design

Summary

BookLucky is a gameful travel planning service, that uses gamification and recreational gambling method to allow tourists book tours that are under development with low price, while giving service providers (tour manager, hotels, restaurants) in local area a chance to advertise their service, and chance to develop the tour with the traveler.

This research used Design Thinking method, and conducted ethnographical fieldwork with a horse racing gambler to learn about the cognition-action pattern of providing exciting, addictive, and memorable experience. Another fieldwork was conducted to understand the service eco-system of the current local tour industry in Japan. An online service is designed to help local areas develop tours while providing travelers chance to explore the local area with very low price.

Keywords:

Design Thinking, Traveling, Service Design, Tourism Industry, Gaming

Keio University Graduate School of Media Design

Zhou Jiahui

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# Chapter 1

## Introduction

### 1.1 Motivation

Yuki San started working as a part-time tour guide from last winter. Having spent a semester studying Regional Revitalization in her graduate school, she thought of doing something for her hometown. After talking with her father's friend, a local forestrist, Ishitsuka San, she made up her mind to start an experience tour to introduce about the forestrist's life style. Ishitsuka San contacted his friend, who works in the local government, and his friend introduced the owner of local hotel. The four people had their first meeting, they made a rough plan, but they don't know if this plan will be welcomed by travelers. So they decided to find some travelers to help them. Yuki San made a poster and posted it on her Facebook: Weekend Free Monitoring Tour. They found 5 volunteers who would like to spend their weekend to help develop the local tour. For these volunteers, they were willing to bet their time for that weekend because they've never experience the lifestyle of forestrist before.

The monitoring tour turned out to be a great success. All the volunteers were very excited about the natural scenery in local Japan; they enjoyed the fresh local food and was surprised by the various local vegetables that they didn't know; they had great time walking in the forest with Ishitsuka San and helped him with growing trees. Coming back from the weekend trip, the volunteer travelers shared their experience to their friends. The tour managing team also learned a lot from these travelers: they now know that the local food they've been always eating is quite special for people from city; they decide to promote weekend healthy tour and target family members in the autumn and females in the winter. For Yuki San's local friends, this 2-day-1-night tour also changed their view about their own hometown. They didn't know that their hometown can be so attractive to people from outside.

To start a successful tour is not easy, but Yuki San and her friends put their

investment in the right place. For travelers, traveling is like gambling, in addition to betting money, travelers also bet their time. Similar to gambling, travelers also tend to find reasoning for the time and money they bet, even when they failed to have a well planned trip.

This research aim to design a new kind of traveling experience which provide trip managers a chance to plan their trip together with travelers, and provide travelers adventurous trip experience in local Japan. The goal of this research is to design the traveling service that motivate travelers to explore local Japan, and help facilitating more local experience tours.



Figure 1.1: Monitoring Tour

## 1.2 Background

### Growing Potential for Tourism in Local Japan

With the well-developed transportation system and infrastructure, more and more people like to travel in Japan and more and more foreigners picked Japan as a place to go for holiday. But big cities like Tokyo and Osaka are less attractive for travelers than before. Cities are becoming alike. Travelers who travel from far are not satisfied with things they are familiar with. To provide tourists memorable experience is a solution for tourism business when facing the challenge of increasing demands of customer expectations, intensified global competition and tourism demand fluctuations. In 2010, Ekoin temple in Wakayama prefecture of Japan launched night tour<sup>1</sup> to explain about Buddhism for people in search of tranquility at dusk. The temple also provide English guide, hence the tour has been attracting many foreign travelers. About one third of the reviews about the Ekoin temple on TripAdvisor were about the night tour. And because of the word of mouth, more and more tourists are coming to Wakayama for this special experience.

Guiding tourists to local japan helps solve the uneven distribution of Japan' s inbound tourism. According to the article "Road to 2020: The Future of Tourism in Japan"<sup>2</sup>, 48 percent of tourist stays are only in and around the major cities of Tokyo, Kyoto, and Osaka. The three cities account only for 28 percent of the entire country' s GDP. Cities other than these three have the potential to host more tourists, and by attracting more tourists to local Japan, it helps balance the distribution of tourism.

Local Japan that tourists are not very familiar with, can provide tourists more new experience than big cities can do, and hence provide tourists memorable experience. Local tours have been getting more and more attention in Japan. Transition Town<sup>3</sup> movement in Japan has started 46 local communities, and they have been giving local tours to introduce local agricultural industry to travelers<sup>4</sup>. In short, the growing need is both chance and challenge for Japan's tourism industry. There is a call for new kind of tourism experience in local Japan to answer the challenge. With relatively undeveloped infrastructures, it's not very possible to provide tourists with very well developed and well planned touring experience. To tackle this challenge, this research used a gamification method.

## Changing Behavior of Travelers

As mentioned previously, experience tour is booming currently. In November 2016, Airbnb launched Experience service<sup>5</sup>, aiming to give travelers more support when traveling. Research by Japanese biggest advertising agency, Dentsu, also showed that young people nowadays like to travel with a concept<sup>6</sup>. Before traveling, young people tend to search reviews and comments from experienced travelers or local people online. Juniors are familiar with web services like Instagram and Trip Advisor. Successful services like Airbnb and Uber also help people build trust in the society and accept the value of sharing houses, cars. The time has come when tour to local area is easier than ever before.

## Gamification and Recreational Gambling

Games are engaging because they satisfy three intrinsic needs of human beings: competence, autonomy, and relatedness. Games can motivate players because the intrinsic needs satisfied by game play are also human motivations. For example, the hit game in the year 2016, Pokemon Go, gives players a sense of autonomy by setting up a game character; players feel competence by the level system and winning over gyms.

Gamification can be defined in service marketing perspective (service-dominant logic). And hence the success of gamification can also be seen as how fun the game is. In fact, a lot services have been using a gameful marketing strategy to attract customers. Nike gives customers chance to customer their own sneakers on their website, just like customizing game characters. Foursquare encourages users to use the service by introducing "mayor" function, users are hence motivated by competition and relatedness.

Gambling, as a well-designed gaming form, can provide recreational gamblers, no matter what age of gender they are, excitement and fun experience. In this research, the author looked into a special form of gaming, gambling. Although pathological gambling is very unhealthy for gamblers' physical and mental health, recreational gambling is proofed to be able to lead gamblers in the state of flow and hence increase the emotional well-being<sup>7</sup>. This research conducted fieldwork with a recreational horse racing gambler to study the mental model of recreational gamblers and aim to recreate the mental model among travelers to give them memorable experience. Details are discussed in Chapter 3.

According to World Travel Market Report(2011)<sup>8</sup>, gamification is a major trend

for the coming years in tourism, which will appeal to consumers across all age demographics.

## **Design the Motivation of Traveling**

Abundant information and fast growing technology make customer thinking in a faster way. With more social medias and almost everyone evolved in the sharing of information, customers start to crave for new information that's not shared before.

The travel industry also see the switching of customer behavior: they are not only looking for something to spend their time in holiday, they want to have experience that's special to them; they no longer rush to tourists attractions, instead, they look for more local experience.

Six years ago, online travel services started trying to turn from shopping with a destination in mind to inspire users to have destination in mind prior to shopping<sup>9</sup>. Travel booking service, Kayak launched its Explore feature, allowing users to filter travel plan with budget. Booking.com also engages its users with email campaigns or on-site recommendations, in which the user receives suggestions for the destination of their next trip. The market has realized the importance of designing for user motivation in this competitive market.

## **1.3 Existing Services**

### **Travel Booking and Planning Services**

#### **Google Trip**

Google launched its traveling service, Google Trip, in 2016<sup>10</sup>. It aims to help travelers with their traveling by suggesting destinations to go. The category information provided by Google Trip includes day plans, reservations, things to do, food & drink, and more. Connect with their Gmail account, Google Trip can also automatically include the travels they book with their email. Google Trip is considered as the killer app for morden tourism<sup>11</sup>. It gives travelers suggestions on destinations based on destination.



## Experience Tour Service

### Toki

Toki<sup>12</sup> is a service aims to provide authentic experience tour in Japan. Targeting a high end market, the service claims that they provide "only the best of the best". Each tour schedule is planned and set by the service provider.

### Japan Experience

Japan Experience<sup>13</sup> provides foreign travelers a lot guide tour and personal tour options. The service now provides guide tour in 38 major cities in Japan. The service recommend travelers guided tours based on location, themes, and seasons. The major theme tours Japan Experience provides include: pop culture tour, market tour, local gourmet restaurant tour, night life tour, gallery and museum tour, and so on.

### TRIP

TRIP<sup>14</sup> is an online local experience tour booking service. The site allows users to search events based on location and categories. Experience tours introduced on TRIP website are mainly short-term (usually within a few hours) events. The site provides service for people who hold experience events, and charge 7% transaction fee for each booking.

## Gamification Used in Traveling

### Foursquare Swarm

Foursquare is a local search-and-discovery service mobile app which provides search results for its users<sup>15</sup>. The company launched its social gaming app, Swarm, in 2014. Swarm allows users to share their locations within their social network<sup>16</sup>. To motivate users to go to more destinations, the app has the function of "mayor", which users can claim the "mayor-ship" of a destination by reaching to the most check-in to the destination among their social network.

## 1.4 Proposal

This research proposes a new kind of travel planning service, BookLucky, for both travelers and local trip planners. For travelers, the service provide them a gameful travel booking and traveling experience, allowing them to collect game coins by

checking in different locations, use game coins to book local trips that are still under development, and collect different achievements. For local trip planners, the service provide them an opportunity to design and plan their trip with travelers and hence to reduce the risk of starting new guide tour business. Different from previous existing services, BookLucky mainly focuses on experience tours that are still under development, meaning the experience tour posted by the planners are not set in schedule.

This service aims to guide more tourists to the local area of Japan, providing travelers fun, unexpected, and memorable traveling experience and hence increase the well-being; while helping facilitating local tours.

Yet the service also face the following in challenge: how to motivate travelers to invest their time into tours that are not settled yet. To answer the challenge, the author did fieldwork with horse racing gambler to understand why people make risky move. The detailed information is introduced in Chapter 3.

## Notes

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# Chapter 2

## Literature Review

For the purpose of recognizing key factors influencing service design in tourism industry, traveler's traveling experience, and traveler's motivation of traveling, this chapter reviewed in the following three domains: service design in traveling, gamification as a method of service marketing, gamification and traveling experience. In the first section of this chapter, Service Design in Traveling, the author reviewed studies related to designing service in tourism industry, and discussed about the theoretical method to engage all stakeholders in the tourism industry and facilitate value exchange. Gamification and Service Marketing section discussed a broader definition of gamification which will be applied in this research. Finally, Gamification and Traveling Experience section discussed the special needs for tourist gamer while traveling, and two possible application of gameful experience in traveling.

### 2.1 Service Design In Traveling

#### Service Dominant Logic

The service-dominant (S-D) logic theory was developed by Lusch and Vargo in 2004<sup>1</sup>. The theory describes the shift from product-centered view of markets to a service-led model and broader the concept of service. In the article "Service Innovation: A Service-Dominant Logic Perspective"<sup>2</sup>, Lusch emphasizes innovation as a collaborative process occurring in an actor-to-actor network. Service in S-D logic means applying specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another actor or the actor itself(Lusch and Vargo 2012). Wang discussed the S-D logic rationale behind China's recent "smart tourism destination" (STD) initiative<sup>3</sup>, which gave an example of applying S-D logic in service innovation. Wang explained, In a STD, the co-creation of tourist experience entails not only experience customization by

tourists, but also by increasing involvement of destination marketing organizations, and other tourists' "experience sharing". For example, the city of Nanjing launched "Nanjing Tour Assistant" mobile app, which provided comprehensive information about local attractions, as well as location-based services which equips tourists with a better understanding of the tourists attraction. Different from traditional destination marketing organizations (DMOs) which employ one-way communication tools, the DMOs of STDs have been using social media to engage more conversation with tourists.

### **Service Ecosystem**

As Lusch(Lusch and Nambisan 2015) explained, a service ecosystem is as a relatively self-contained, self-adjusting system of mostly loosely coupled social and economic (resource-integrating) actors connected by shared institutional logics and mutual value creation through service exchange. Lusch pointed the importance of maintain shared institutional logic among each actors in service innovation. In this research, the author designed a service that allows travelers and trip managers to exchange roles easily and co-create values, and hence help build up a shared logic among the most important actors.

### **Value Co-Creation**

S-D logic emphasizes that all social and economic actors integrate various types of resources(operant and operand) to create value(Lusch and Nambisan 2015). In his article "Value Co-creation Significance Of Tourism Resources"<sup>4</sup>, Prebensen outlines important aspects of the experience value construct in tourism, and tests the effect of various experience elements on overall experience value. Prebensen suggested tourists being treated as resources as well as costs. Tourists' time and experience can also be values that evolve in the value exchange in the service ecosystem.

### **Co-Design as a Method to Develop Guide Tour**

In the article "Empirical investigation of the impact of using co-design methods when generating proposals for sustainable travel solutions"<sup>5</sup>, Mitchell compared the idea generation within the context of reducing the number of single occupancy car journeys to and from a UK university campus among co-design group

and consultative group. His research data showed that the co-design group generated significantly greater number of ideas, both in total and as innovative ideas, than the consultative group. Mitchell concluded in his research that "Co-design activities are therefore of benefit where innovation is sought, by means of encouraging idea generation, a proportion of which are likely to be innovative.", which promisingly shows the possibility of the proposal in this research, one of whose stakeholders is Trip Manager. This research proposes a co-design method to Trip Manager and help them develop their own local guide traveling experience. Compared to the traditional way of planning trip in the tourist agency, the new kind of method the designed service proposed can help the Trip Managers get more constructive suggestions from their customers in the empirical monitoring tour. More detailed method will be introduced in Chapter 3.

## 2.2 Gamification and Service Marketing

Gamification has raised a lot of interest both in industry<sup>6</sup> and also increasingly in academia during the past few years. The success of mobile services, for example, Foursquare and Nike+ are often attributed to gamification<sup>7</sup>. In the paper "Defining Gamification - A Service Marketing Perspective"<sup>8</sup>, Huotari and Hamari pointed out that the understanding of gamification had been solely based on the act of adding systemic game elements into services, and hence propose a service marketing perspective which emphasizes the experiential nature of games and gamification.

Huotari and Hamari argues that games are co-produced by the game developer and the player(s). The core service of the game is to provide hedonic, challenging and suspenseful experiences for the players, or gameful experiences. In their definition, gamification refers to: a process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation. With this definition, the successfulness of gamification is not only measured by the quantized result. Given this definition, a successful gamification can also be regarded as having provided fun game experience, as a service's value is co-created with user in the context.

With their definition, it's still true that it is not always the provider of the core service that also provided the gamification process. Huotari and Hamari hence identify four possible gamification providers: 1) The core service provider, 2) A third party service provider, 3) The customer him/herself, 4) Another customer.

This helps identify the value co-creation of the design of this research in later chapters.

## 2.3 Gamification and Traveling Experience

### The Special Needs for Tourist Gamer

As introduced in previous chapter, gamification is a major trend for the coming years in tourism, and gradually some serious games are being designed for the purpose of introducing tourism information<sup>9</sup>. However, they are not always successful due to a lack of understanding of tourist players<sup>10</sup>. In the paper “Tourists As Mobile Gamers: Gamification for Tourism Marketing” (Xu et al. 2016), Xu et al. analyzed the special needs and motivation of tourist players when gamification is used in tourism.

Xu et al. divided the current use of gaming by tourism industry into two types: 1) Social games, which are mainly used for brand awareness, to attract potential customers, and to build up a destination or a company image; and 2) Location-based mobile games, which are mainly used to encourage more engagement on-site, to enhance tourists’ on-site experiences at the destination in a more fun and informative way.

By interviewing 26 different students who currently use a smartphone, who are familiar with game (plays PC games or mobile games at least twice a week), and who have recent traveling experience, Xu et al. summarized the main motivation of playing a tourism game as: 1) Curiosity; 2) Explore the destination; 3) Socialize; 4) Fun and fantasy experiences; and 5) Challenge and achievement. This finding provides a guideline of designing the fun experience for tourists in gamification. The authors also pointed out that these motivations might co-exist at the same time. The popular sensation-seeking motivation in game players is not a main choice in this case. Rather, the intellectual motivations of a tourist to learn, explore, and discover new things, were highlighted in the findings. The authors also pointed that the intrinsic motivation (fun and fantasy experience, challenge and achievement) of tourists seem to support the flow of the game, which also reflecting the successfulness of gamification can also be regarded as having provided fun game experience. Xu et al. wrote, when players become more experienced they look for more fun and challenges.

Xu et al. concluded that gaming can enhance tourist’ interest in the destina-

tion, provide experiences and knowledge which otherwise are not available, thus co-creating a personal experience during the visit; engaging other players and locals can enhance this experience even more and influence how interact with destinations in a large scale.

## Location-Based Mobile Games

Location-based mobile games (LBMGs) are games that people play while moving through physical spaces. Research has shown that they can impact individuals' experience of their surrounding space and their mobility decisions. Frith took the location-based mobile game, Foursquare, as a case, and analyzed how Foursquare's gaming elements can impact people's mobility decisions<sup>11</sup>. Frith did interviews among frequent Foursquare users and analyzed the interview result of 16 women and 20 men, and focused on two specific gaming elements in Foursquare: mayorships and badges. This research showed that the decision to pursue mayorships and badges can impact how individuals related to their surrounding spaces and make decisions about where to go. He concluded that the pursuit of these elements can turn everyday activities into a playful experience. Though the research is focused on Foursquare, Frith also suggested the possibility of his findings being applied outside of the context of Foursquare. The research provided two specific gaming elements that result in fun gaming experience. This gives inspirations to the later design process.

## Context-Aware Recommender System

A context-aware recommender system incorporates the knowledge of different contextual factors such as time or whether information to improve item suggestion made to a user<sup>12</sup>. In his article, "Learning the Popularity of Items for Mobile Tourist Guides", Hiesel designed the proactive recommender system to recommend tourists a point of interest (POI) based on the user's current context. A proactive recommender system is a recommender that pushes item suggestions to the user based on the current situation (e.g. location, time of day or weather) without explicit user request. Hiesel get the data source from publicly available data source, such as Foursquare, Twitter and Flickr. He determined the check-in of the places by 3 means: 1) explicit check-in, 2) implicit check-ins by taking a picture, 3) implicit check-ins by generating a GPS trace on a smartphone. In addition with these check-in data, the author also included the time data, and the



weather information of a check-in. With these data, it's possible to know which place is more popular at what time and what kind of weather.

Hiesel went on to develop a user interface to allow users using these data, and analyzed his design and findings in the article: "A User Interface Concept for Context-Aware Recommender Systems"<sup>13</sup>. The author's design goals include making complex systems more transparent to users and giving them a tool to explore when places are popular.

These two articles provided a great reference for designing the 'study' process for the users, details are discussed in Chapter 3 of the research.

## 2.4 Contribution Of This Research

Previous research conceptually discussed the importance of considering service as a whole experience, and suggested designing a service that create value for both actors and beneficiaries. Researches also proved the possibility of gamification in designing the fun and memorable traveling experience, and the gaming elements can affect the individual decision about where to go. This research intends to employ abstract theories in particular context, travel planning and traveling experience, by providing a case study of designing service experience using method of gamification, to provide travelers (users of the service) a fun and memorable traveling experience, and to provide hotels and restaurants (suppliers or actors of the service) a chance to attract more potential customers.

## Notes

- 1 Lusch and Vargo (2012) *Service Dominant Logic*.(Lusch and Vargo 2012)
- 2 Lusch(2015) *Service Innovation: A Service-Dominant Logic Perspective*. (Lusch and Nambisan 2015)
- 3 Wang(2013) *China's "smart tourism destination" initiative: A taste of the service-dominant logic*.(Wang et al. 2013)
- 4 Prebensen(2013) *Value Co-creation Significance Of Tourism Resources*(Prebensen et al. 2013)
- 5 Mitchell(2015) *Empirical investigation of the impact of using co-design methods when generating proposals for sustainable travel solutions*(Mitchell et al. 2015)
- 6 Kim, A. J. (2008) *Putting the Fun in Function - applying game mechanics to functional software*.  
<http://www.slideshare.net/amyjokim/putting-the-fun-in-functiona?type=powerpoint>

- 7 *Deterding, S., Dixon, D., Khaled R., & Nacke L., (2011) From Game Design Elements to Gamefulness: Defining “Gamification” . (Deterding and L. 2011)*
- 8 *Huotari, K., Hamari, J., (2012) Defining Gamification - A Service Marketing Perspective. (Huotari and Hamari 2012)*
- 9 *Xu, F., Tian, F., Buhalis, D., Weber, J., & Zhang, H., (2015) Tourist As Mobile Gamers: Gamification for Tourism Marketing. (Xu et al. 2016)*
- 10 *Fernandes, R. P. A., Almeida, J. E., & Rosseti, R. J. F., (2013) A collaborative tourist system using Serious Games. (Fernandes et al. 2013)*
- 11 *Firth, J., (2013) Turning life into a game: Foursquare, gamification, and personal mobility (Firth 2013)*
- 12 *Hiesel, P., Braunhofer, M., & Wörndl, W., (2016) Learning the Popularity of Items for Mobile Tourist Guides.(Hiesel et al. 2016b)*
- 13 *Hiesel, P., Braunhofer, M., Herzog, D., & Wörndl, W., (2016) A User Interface Concept for Context-Aware Recommender Systems.(Hiesel et al. 2016a)*

# Chapter 3

## Design

### 3.1 Design Objective

BookLucky is a gameful service design that allows travelers book developing local trip plan, and co-plan the trip with the trip guide. More specifically, in this service, users collect game coins by checking in different locations, use game coins to compete for the travel bargains posted by providers (restaurants and hotels) in real time, and collect different achievements.

Three stakeholders are involved in the main service eco-system: user, restaurant manager, hotel manager. Users of the service may have three main role during the process of travel: player, bargain provider, tour planner. This service aims to guide more tourists to the local area of Japan, providing travelers fun, unexpected, and memorable traveling experience and hence increase the well-being; while giving other service providers(hotels and restaurants) in local area a way to advertise their service. Several challenges which the author intends to address in the design are listed below:

- 1) how to make booking and travel planning a fun experience?
- 2) how to proactively guide tourists to non-boom places to balance the supply and need?
- 3) what kind of experience travelers like when traveling?
- 4) what can make travelers use the service again?
- 5) what kind of experience travelers remember after traveling?

To tackle challenges mentioned above, the author used the Design Thinking method, and conducted three fieldworks on horse racing gambler, traveller and travel guide, and casino gambler. The author believes recreational gambling is a very good example of nice experience, and hence decided to conduct fieldwork on

gambling, to learn about how to design nice experience. The three fieldworks were done in different countries, but the main gambler/traveler in the three fieldworks are all Japanese people around 22-30 years old. The detailed design process is discussed in the following sections.

## 3.2 Ethnography

The focus point of conducting fieldwork is to understand why gamblers enjoy the gambling, how the house manage the environment and provide entertainment to gamblers, and what tourists focus when traveling to unfamiliar destination. During the first fieldwork, the author followed a horse racing gambler to observe how he made the bet and chose horses, how he enjoyed horse racing even when he couldn't always win the money back. The second fieldwork was done in London, England, where the author took a bike tour in London and observed how the tour guide introduced the city to people who are not familiar with it. The third fieldwork was conducted in Gunma, Japan, where the author joined a free tour and researched about how the master, the tour organizer, manage to do so.

### Fieldwork I

The first fieldwork was done in June 21st, 2015, in Tokyo Race Court. This fieldwork involved a frequent horse racing gambler as the fieldwork master. The author followed the master from 3pm to 5pm, and observed how he bet on horses and enjoyed the horse racing(Figure 3.1).

The fieldwork master, Takaya S., is a 23 years old IT engineer at CITIZEN in Tokyo. He started horse racing when he was in college, and he had been enjoying it very much. More information about the master is shown in Figure 3.2. During this fieldwork, the master's goal was to win money, enjoy the time on weekends with friends in the race court, and to teach beginner gambler the basics of the race gamble game.

On the fieldwork day, it was the debut race of young horses in Tokyo. Takaya San gathered information from the internet and waited for his friend while bet on several races. When the beginner friend came, Takaya san introduced the horse race flow to the friend, and told him some tips for horse racing. The master showed his friend where to buy the information newspaper for horse racing and guided him through the newspaper about what to focus when reading newspapers

like this. The two then went to see the walking show of the race horses to check the condition of the horses by their eyes. They gambled for 2 races. For the first round, the master gambled, and the friend just observed him. The second round, both of them gambled and they agreed to share the prize. After watching the horse walking show, together with his previous research about the horses' information from the internet, the master decided on which one to bet. Master wrote on the ticket which he previously got from the ticket office. He then went to the race court and found an preferable place for watching the horse race. The race began with some signal music, Takaya San stood up from the seat and went to the front row. Though he previously said he was not the kind of person who shouted a lot during the game, he still cheered for the horses in a louder voice. Unfortunately, Takaya San lost the first game he bet on. He appeared to be very disappointed and kept complaining how close he was to winning, and calculated how much he could have won. During the second round, the master and his friend bought separately, but agreed to share the result. They won 5000 yen in the end, and happily went barbecue for the dinner. A flow model is developed to understand the flow of gambling, it is shown in Figure 3.3.

To understand the deeper reasons behind recreational gambler's behavior and interaction between gamblers, the author analyzes the fieldwork from flow model, sequence model, artifact model, physical model, and cultural model. Figure 3.3 shows the flow model of this fieldwork, it illustrates the flow of the gambling behavior of the fieldwork master. Sequence model is shown in Figure 3.4, the author specifies the sequence of setting a bet and watching the game. Artifact model is used to understand what kind of artifacts are used during the fieldwork, it is shown in photos in Figure 3.1. A physical model (Figure 3.5) draws out the physical space of the horse race court, and how the master and his friend moved around in the space. Finally, the cultural model (Figure 3.6) illustrates the human relationship of the master, and it suggests the facts that can affect the master's behavior and choices.

The master, Takaya san, lives under a lot stress, horse race gambling is a way to relax. He just move from Kyoto to Tokyo, horse race gambling makes him feel familiar. He doesn't care too much about winning or not, since he's very logical player, he will limit himself from spending too much money. He has confidence in his bet, since he has been playing horse racing for quite a while. Horse race gambling also helps him make some friends. Figure 3.7 shows the mental model of the fieldwork master from fieldwork I.

When the master knows about the biggest prize, he started to imagine himself winning and how he can spend the prize; when see the information of different sources, he analyzes the information based on his own knowledge; he restrains himself from spending too much money if he already lost a bit; he has a sense of competition to other gamblers when enjoying the game; when he sees good result, he will feel proud and want to show off and tell others about his tips; when he sees bad result, he will find reasoning by himself, and imagines how close he was to winning.

This fieldwork aims to study why people enjoy the gambling experience even when they know they have a big chance to lose. The analysis suggests that gambler is highly motivated by the final prize, he finds it interesting when studying about the game because he really want to win. Since the gambler is in this immersive environment where all other gamblers are there, he develops a strong competitive state of mind, which is also one of the reasons he wants to go for more after loosing.



Figure 3.1: Fieldwork I: Artifacts of the Fieldwork

## FIELDWORK MASTER

PHOTO



NAME	
Takaya S.	
AGE	SEX
25	Male
CURRENT CITY	
Tokyo	
HOMETOWN	
Kyoto	
OCCUPATION	
IT at CITIZEN	

PERSONAL PROFILE about his/her history, background, family, hobby, favorite things, interest in everyday life etc...

Takaya san was born in Kyoto in 1991. He is the only child of his family. His parents divorced when he was young and he lived with his mother for 22 years. He likes soccer. He would play soccer with his friends in spare time. He was badly ill (rare, but same with Prime minister Abe) when in undergraduate (senior year, when job hunting). He then made a gap year and went to Canada after he healed. He moved to Tokyo since March 2015.

WORKING PROFILE about his/her working experience, student life, and other professional activities

He studied Life Science in undergraduate, at Doshisha University. Study English in Vancouver, Canada for half year. Now he works as a programmer for CITIZEN.

GOAL(S) about master's goals you came across during your fieldwork

He wants to learn C languages. He wants to be a public servant in the future, and live with his mother in Kyoto.  
He wants to win money and spend happy time with his friends in the racecourse.

Figure 3.2: Fieldwork Master of Fieldwork I

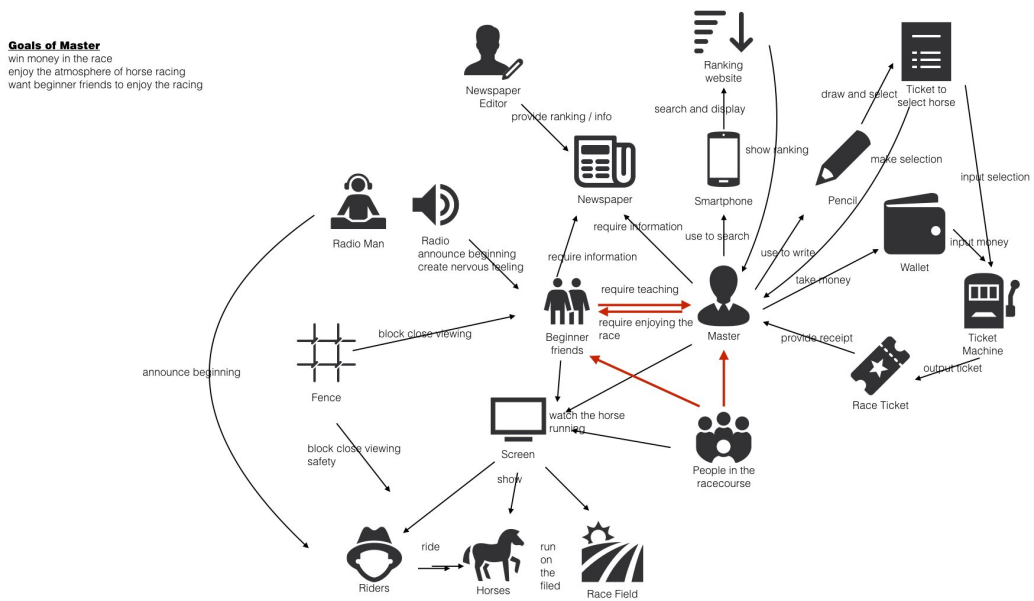


Figure 3.3: Fieldwork I: Flow Model

<b>search for information previously</b>	<b>select the horse</b>	<b>help friends enjoy the race</b>
checked the sites he usually visited	bought the newspaper from convenient store	showed friends 4 different types of tickets
read analyze articles from others	got selection ticket from place near the ticket machine	explain to friends about the selection ticket
took what he thought is important	found the race he wanted to bet on newspaper	read the horse rankings and riders to friends
memo important information in smartphone	read the horse rankings and riders	explained the racecourse to friends
went to the racecourse early in the morning	checked the time with his watch	told friends about his own analysis
	went to the showcase course to observe the horses	explained to friends before the race begin
	checked horses and adjust his choices	kept talking about the loss with friends
	went back to the hall	suggested friends to have a try
	wrote the ticket in the hall	showed friends which horse to choose
	went to the ticket machine and paid the money	taught friends the trick of horse racing
	held the race ticket and appeared to be happy	
	went back to the main racecourse	
	went to the front row and waited for the competition	
	listened to the beginning music and focused on horses	
	shout with other audience when horses come closer	
	appeared sad and angry for the loss	
	went back to the main hall and threw away the ticket	

Figure 3.4: Fieldwork I: Sequence Model

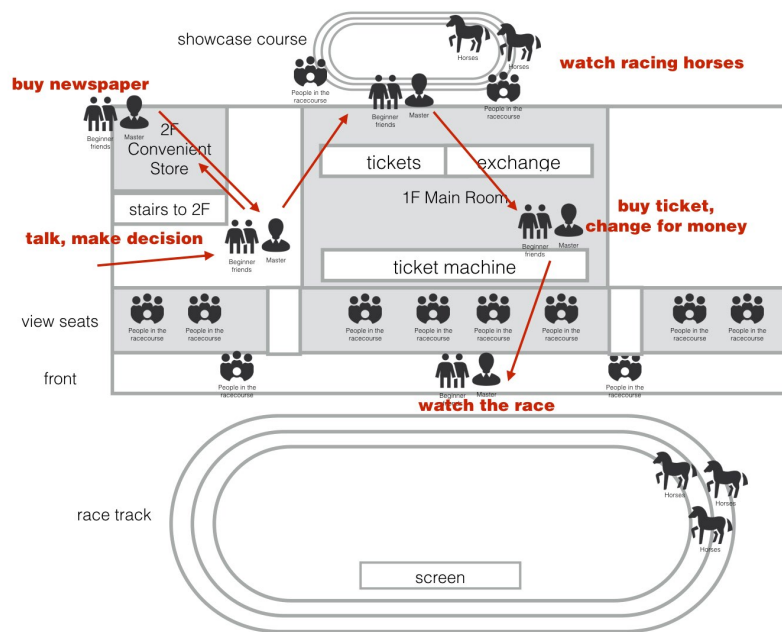


Figure 3.5: Fieldwork I: Physical Model



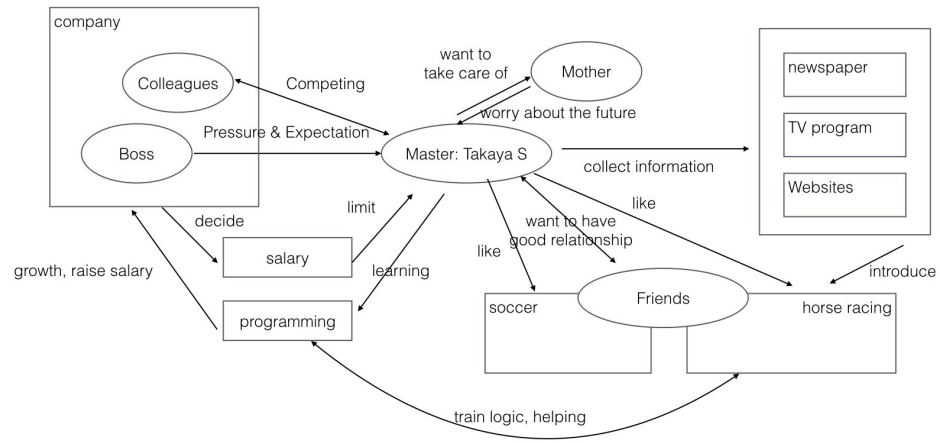


Figure 3.6: Fieldwork I: Cultural Model

empathy	know the the biggest prize	—> imagine himself winning/enjoying the horse racing
get information	see/get information from different source	—> analyze the data based on his own knowledge
self constrain	realize he might spend too much money in gambling	—> make rules for himself to restrict himself from being addicted
sportsman mind: competition sense of team	see other gamblers eager to win	—> stay calm and try to differentiate from them, make suggestion to close friends
	see the result	—> analyze the reason when losing, imagine the prize he might get from winning (when losing)
empathy		compare with others and feel satisfied, celebrate the winning & want to bet again (when winning)

Figure 3.7: Fieldwork I: Mental Model

## Fieldwork II

The second fieldwork was done on October 17th, 2015, in London, UK. The second involved a local bike guide, James John, as the fieldwork master. The author took the “Gin and Food Bike Tour” guided by the fieldwork master and explored the local places with the master from 2pm to 6pm.

The fieldwork master, James John, is a 43 years old history teacher at a local middle school. In his spare time, he helps his friend with his bike tour service. More information about the master is shown in Figure 3.8. During this fieldwork, the master’s goal was to introduce London’s city, culture, and history to the foreign tourists in a fun way; he also wanted to promote the local gin.

After booked the Gin and Food Bike Tour online and paid the fee, the four foreign travelers were asked to gather at a bar near Tower Bridge. The bar is a traditional London bar. Travelers were informed that they can get a discount for drink if they say the bike tour name. When James arrived, travelers were guided to the garage to pick up their bikes at the beginning. James introduced himself (very brief, just the name), and introduced the bike maker. He asked travelers to test the bike and offered adjusting the seats’ height. When everyone’s ready and on their own bikes, he briefly introduced the traffic rules. During tour, he rode in the very front, turned around to check if everyone’s following constantly, and used his hand gesture to show travelers where to turn, or stop. The group stopped at several normal buildings, and churches before they were guided to the market. James explained the difference between post WW1 architecture and post WW2 architecture. He also explained the history of gin at the very beginning. After the historical tour, tourist were guided to a local market nearby, they stopped our bikes in front of a gin bar. Then travelers went to buy food in the market while James took a rest in the nearby gin bar owned by his friend. James made some recommendations for travelers. After buying food, they were shown into a small room inside the bar and had their food there. Then the staff in the bar introduced travelers several kinds of gin beverages. They tasted 3 kinds of shorts and 4 different long drinks. After drink, James guided travelers to the Tower Bridge and helped them take a picture there. Then afterwards, he guided them to a place where they can draw graffiti legally. He offered two color sprays, and let travelers try drawing graffiti themselves. They finished the 4 hour bike tour afterwards. James gave them postcards of the bike tour company, and invited them to tweet and post pictures on Facebook about this bike tour at the end of the tour. He also gave them some suggestions on good steak place to go in

London.

A 5 model analysis is also done on this fieldwork. Figure 3.9 illustrates the flow model. Figure 3.10 is the sequence model of this fieldwork, where the sequence of how the fieldwork master, James arrange the whole tour, and the sequence of how he introduced the history along with the local building are highlighted. Figure 3.11 is the artifact model, his multi-functional bike and jacket are highlighted. Physical model was not used in this fieldwork. Figure 3.13 shows the cultural model, which illustrates how the master and his company managed to make profit and find more customers.

This fieldwork aims to study what local guide tend to introduce to travelers and what makes travelers happy during the guide tour. The analysis suggests that to make travelers happy, the fieldwork master set a lot surprises during the tour, limited information is shown to the travelers before the tour so they get more excited when being surprised. The fieldwork master adjust the tour route based on the group of people he had. As a conclusion, limited previous information can makes travelers curious and excited; when travelers got unexpected experience, they have very high satisfaction; it is important to set a nice ending of a guide trip.


FIELDWORK MASTER	
<small>PERSONAL PROFILE</small> about his/her history, background, family, hobby, favorite things, interest in everyday life etc...	
James is 43 years old. He loves history and architecture. He loves gin and usually spend his night in bars with his friend. He married once but he is single now.	
<small>WORKING PROFILE</small> about his/her working experience, student life, and other professional activities	
He works in a local middle school as a history teacher since 15 years ago. His friend started the bike tour service, so he was invited as a guide. He does bike tour guide in his spare time.	
<small>GOAL(S)</small> about master's goals you came across during your fieldwork	
He wants to introduce London's city, culture, and history to the foreign tourists in a fun way; he also wants to promote the local gin.	
<small>PHOTO</small>	
	
<small>NAME</small> James John	
<small>AGE</small> 43	<small>SEX</small> Male
<small>CURRENT CITY</small> London	
<small>HOMETOWN</small> London	
<small>OCCUPATION</small> History Teacher at Middle School, Bike Guide	

Figure 3.8: Fieldwork II Master

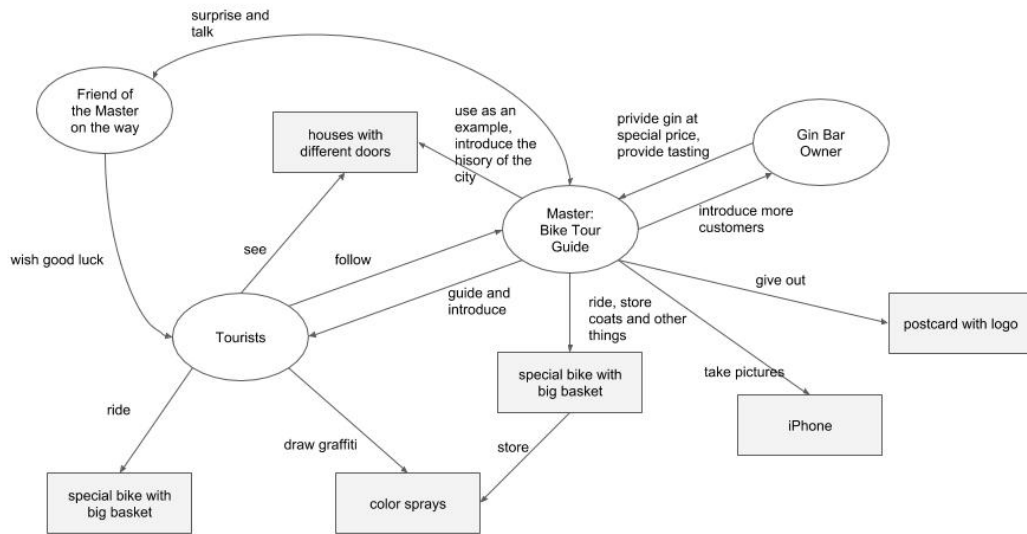


Figure 3.9: Fieldwork II: Flow Model

**before the bike tour**

- ask travelers to meet at the local bar
- email travelers about the special bargain
- come to the bar on time
- shout out the tour's name to attract travelers
- check travelers' names
- guide them to the bike garage
- ask travelers to choose and test the bike
- offer adjustment with the bike

**history tour**

- explain to travelers the meaning of signs
- ride slowly and test the signs
- turn around sometimes to check
- stop when there's old houses
- ask travelers to stop in safe place
- ask travelers the difference of two houses
- explain the history
- answer traveler's question

**gin and food tour**

- guide traveler to the local food market
- show travelers the place to park the bike
- recommend travelers nice stores
- make sure about the meet up time
- wait for travelers to come back
- chat with friends in the bar
- help prepare the gin cocktails
- help set up the table
- help explain the gin culture

Figure 3.10: Fieldwork II: Sequence Model

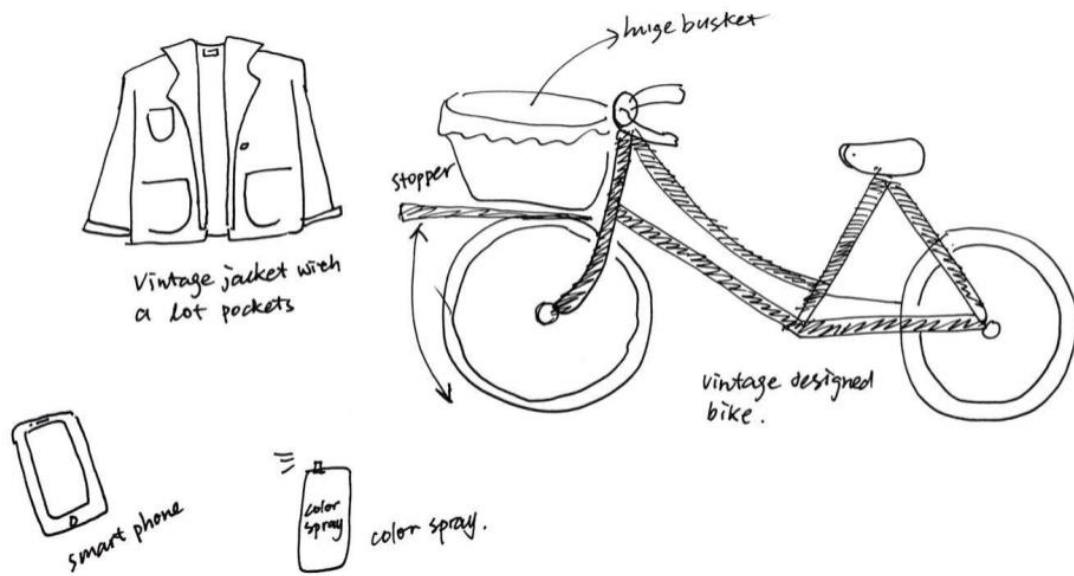


Figure 3.11: Fieldwork II: Artifact Model

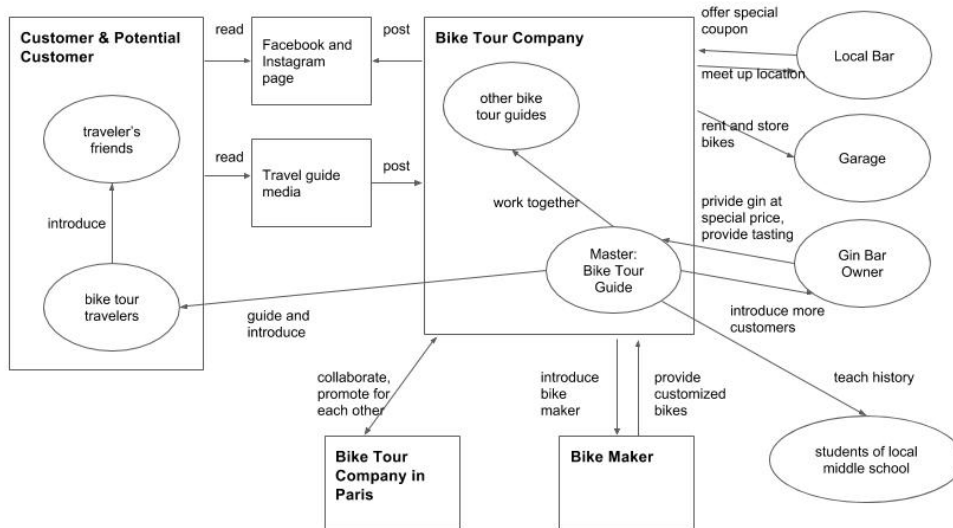


Figure 3.12: Fieldwork II: Culture Model

### Fieldwork III

In the third fieldwork, the author joined a free tour to Gunma, Japan. Gunma is not very popular traveling destination in Japan. Learning from the fieldwork master, the tour manager, the author developed the service ecosystem of Book-Lucky.

Arriving at Jomokogen Station, the author finally met the Yuki H. San (Figure 3.14), who had been contacting the author via email as the tour manager. When everyone arrived, the master guided the tour group to a bus. On the bus, the master introduced herself, and briefly explained where the bus was heading to, and what the tour is about. The master explained that the two day trip (Figure 3.13) was to experience the life style of local forestrist, and it was because she has been planning to make this tour as a real business, so she wanted to get some opinions from the travelers to help develop the tour.

The schedule of the two day trip was planned beforehand, but the master kept the schedule with her and only announce the event when time came. It was raining when the group arrived at Gunma, as a result the forest walk planned on the first day was canceled, instead, the event of making bamboo bowl on the second day was rescheduled on the first day. A officer of the local government's tourism promoting department came and explained the history of the area. The travel group then made self introduction before having bento as lunch. The bento is offered by a local food making company, and it's their test new product. While the travel group was having lunch, the master helped explained about the concept of the bento, and the group exchanged their opinions. The group of traveler also found the local old house very interesting. They asked questions to the forestrist about the house, and recommend him to make the house as a merit of the 2 day tour.

After lunch, the group of traveler were guided to the back yard of the old house, and there they made the bamboo bowl with the guide of the master and the forestrist. They took the bus to the local hotel after the bamboo workshop. In the hotel, the traveler group were shown to their rooms. All the guest rooms have great view to the valley. The travelers from the city were very surprised by the nature scenery in the city, they were so happy that they used their five senses to feel the environment. They went out in the free time, watching around, picked up leaves, smell the air, listen to the birds sound brought by they wind. The master later explained that the tour time was set by the forestrist, because being in the mountain and forest for long time, he knew when was the best time to visit the

mountain. The travelers met the forestrist again before the dinner in the local hotel. The forestrist talked about his life and why he enjoyed living and working in the mountain. During the dinner, the owner of the local hotel also explained about the seasonal set menu using vegetables from the forest. Travelers enjoyed the fresh food, and had great time talking with each other about the day's event. On the second day, travelers went into the forest with the forestrist. They cooked rice with the campaign oven and eat it with the bowl they made the day before. Everyone gathered in the guest room of the old house to talk about their thoughts on the trip and their opinions to develop the trip after the lunch. The travelers were taken to the local hot spring, and then to the local souvenir store before they went back home. A 5 model analysis(Figure 3.15, Figure 3.16, Figure 3.17, Figure 3.18, and Figure 3.19) was done with this fieldwork as well. From the third fieldwork, the author set up the service ecosystem for the design.



Figure 3.13: Fieldwork III

### FIELDWORK MASTER

PHOTO



NAME  
Yuki H.

AGE 24 SEX Female

CURRENT CITY  
Kyoto

HOMETOWN  
Gunma

OCCUPATION  
Student at Kyoto University

PERSONAL PROFILE about his/her history, background, family, hobby, favorite things, interest in everyday life etc...

Yuki is a graduate school student studying “地域創生”. She likes traveling and mountain climbing. She’s now starting local experience tour project with the local government, as part of her research work. She went to German for exchange in her undergrads.

WORKING PROFILE about his/her working experience, student life, and other professional activities

She studied Cultural Study when in college, and then she decided to pursue her graduate study about “地域創生”. She started the local tour 1 project 1 year ago. With the help of the local government, she got to know many local people and stores. Many of the previous tourists who joined the monitoring tour before also helped her connect people.

GOAL(S) about master’s goals you came across during your fieldwork

She wants to introduce her hometown to others  
She wants to organize a successful tour that’s liked by everyone  
She wants to graduate successfully and earn enough experience for future career.

Figure 3.14: Fieldwork Master of Fieldwork III

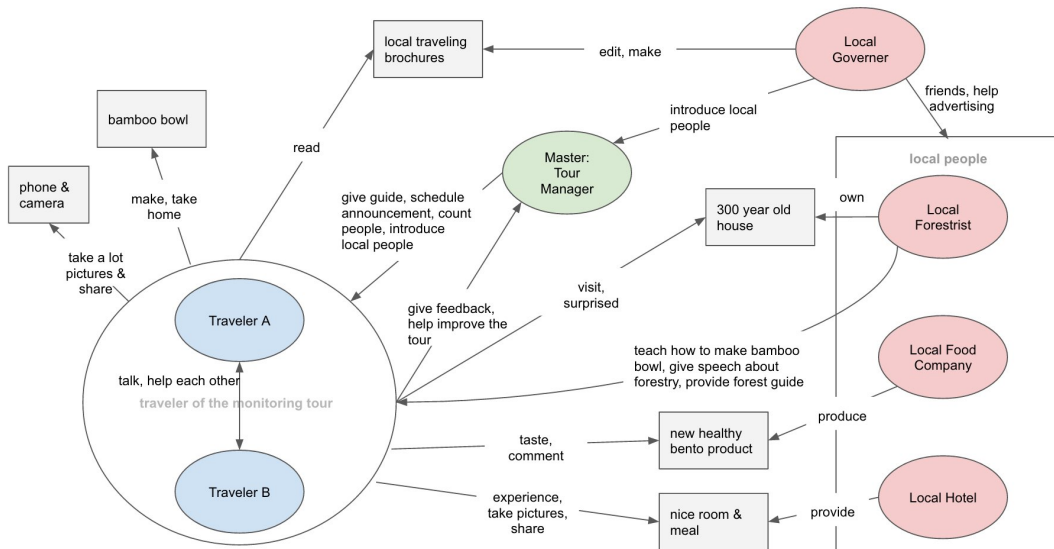


Figure 3.15: Fieldwork III: Flow Model



find test travelers	improve the trip	organize events
talk about the event with friends	plan the trip with local people	ask about events suggestions from local people
invite friends to the tour	organize the events and make schedule	help prepare tools
ask friends to invite more friends	get information about the tourists	guide the tourists to the location
make the poster with the help with the friend	adjust the event plan to fit the tourists	introduce about the event
put the poster on Facebook	help explain about the event before hand	observe how tourists behave and take notes
wait to receive email	ask tourists how they think and how to improve	join the event herself
explain about the event in email	take notes	talk with tourists
receive detailed information of travelers	invite tourists to come again	help take care of tourists
		check time schedule with local people
		announce end of the event

Figure 3.16: Fieldwork III: Sequence Model

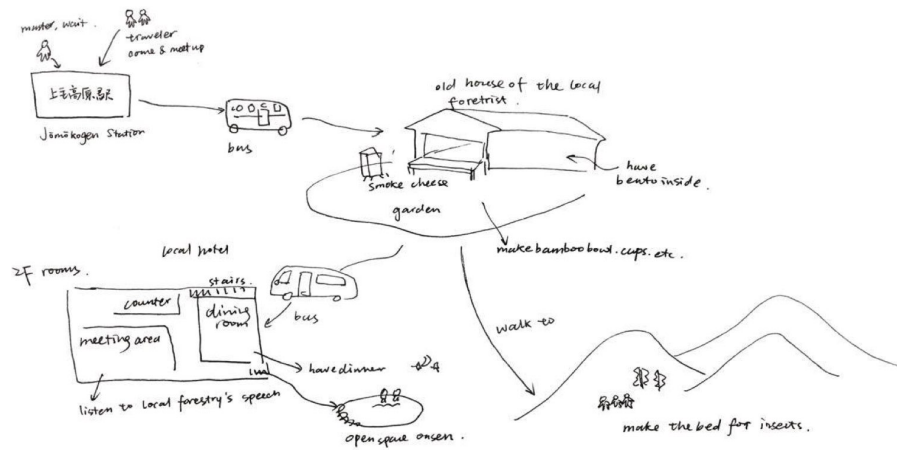


Figure 3.17: Fieldwork III: Physical Model

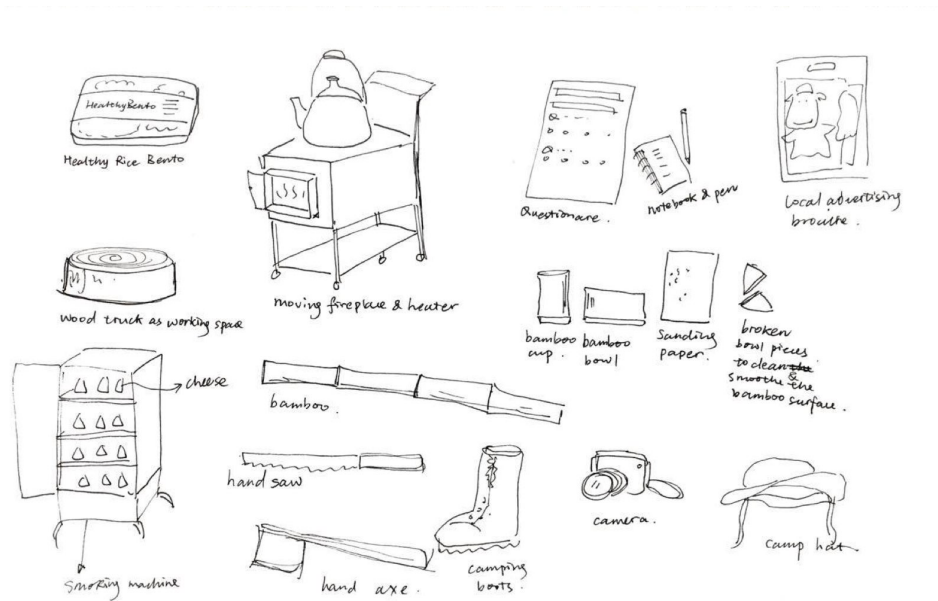


Figure 3.18: Fieldwork III: Artifact Model

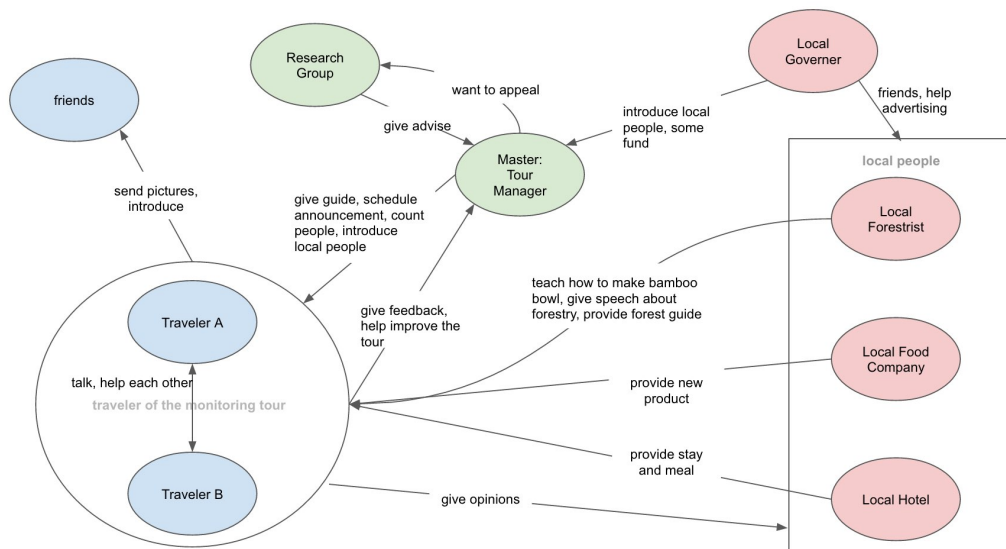


Figure 3.19: Fieldwork III: Cultural Model

## Gambler's Mental Model Cycle

Based on the first fieldwork of this research, the author summarized gambler's mental model cycle in Figure 3.20. This shows the cognition-action patterns cycle of gambler during the gambling experience. A gambler starts with knowing the big prize, and imagining winning the prize; then he restrict himself from spending too much money on gambling before making the decision of which one to bet; when the gambler win the game, he tends to show off and check how much he wins over others; when the gambler loses, he also checks others and wants to analyze why he loses and learn from other gamblers; in both cases, the gambler tends to go for more if he didn't lose too much.

This research tries to recreate this cognition-action cycle on travelers when they plan their travel and when they go to the travel, and hence create a exciting and fun experience for travelers while trying to utilize the resources from the provider side. Figure 3.21 illustrates how the cognition-action cycle can be used on travelers while they plan the trip, and what kind of resources can be provided to enable the cognition in each stage.

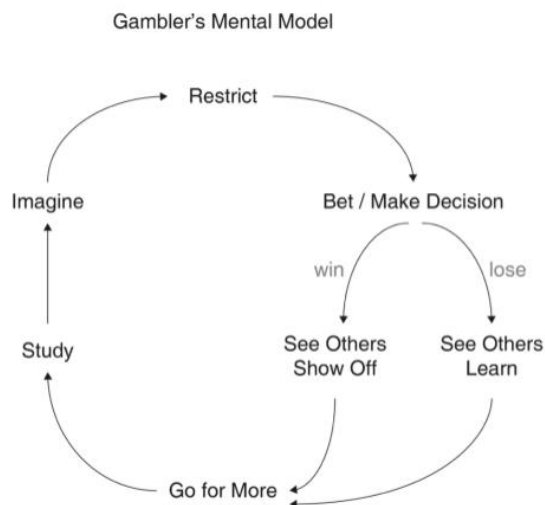


Figure 3.20: Gambler's Mental Model Cycle

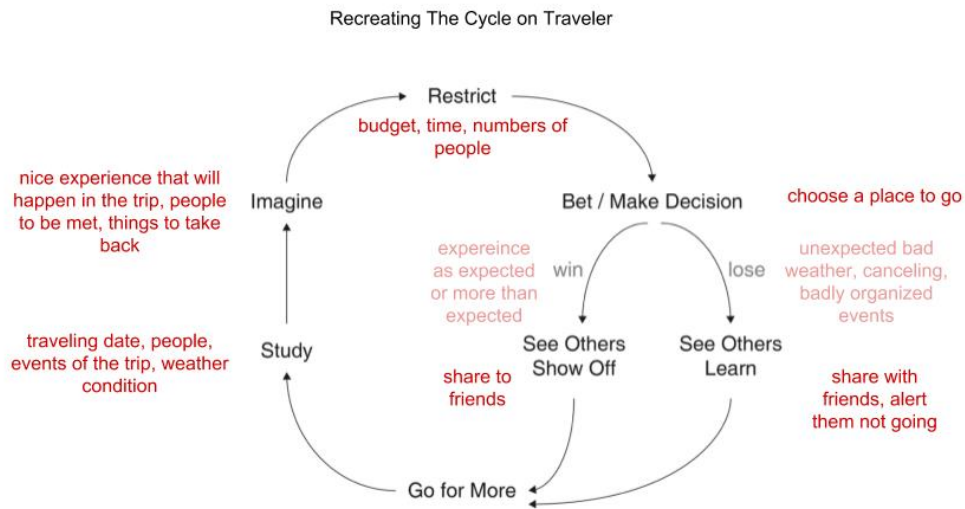


Figure 3.21: Recreating The Gambler's Mental Model on Travelers

## 3.3 Design Concept

### Concept Sketching

BookLucky is a trip booking service where trip manager can post their trip plan in the very early stage, developing the trip with the travelers; and travelers could book the undeveloped trip in low price.

There are mainly two types of users in the service. Travelers are those who enjoy traveling to unknown places, and who find happiness and sense of ownership in helping. Trip Managers are those who want to start a trip, and would be glad to take the opinions from their customers. The basic flow of the service is described in Concept Sketching(Figure 3.22 and Figure 3.23).

For Travelers, they can earn coins which will be used in booking travel plan by shopping in partner stores. Travelers can use their coins to book travel plan in near future, and help plan the trip with the trip manager. After coming back from the trip, the Travelers are expected to comment on the trip and share the experience with friends, and the service system would suggest stores related to the traveling experience to Travelers to help form the cycle described previously.

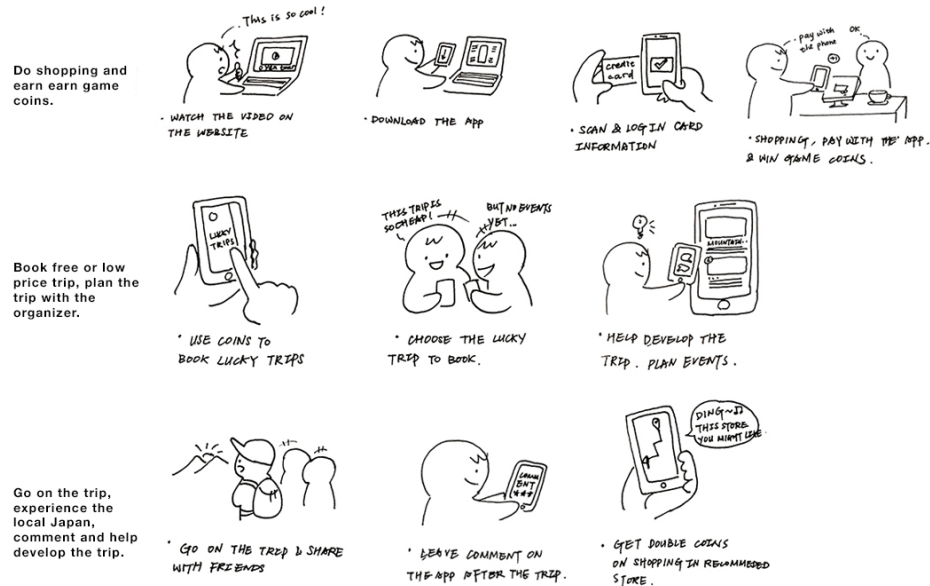


Figure 3.22: Concept Sketching: Traveler

For Trip Managers, they can post the basic trip information on the service platform when it's still an idea. Trip managers view the event proposals by Travelers who book the trip, and schedule events. Trip Manager should also find fund of the trip, and with the information and data from BookLucky service, it's more convincing that the trip will be a success in the future, and it would be easier for them to gather fund and find business partners.

## Stakeholders

There are five Stakeholders involved in the service of BookLucky: the traveler, the service provider, the trip manager, local tourism promoting department, and the local people.

Travelers are people who want to travel to unknown places. Value proposing of the travelers is that they can book experience tour of local places with low price, and get the chance to join the trip organizer to plan the trip.

Trip managers are people who would like to manage a planned trip. Value proposing of trip manager is that they can collaborate with the travelers, and lower the

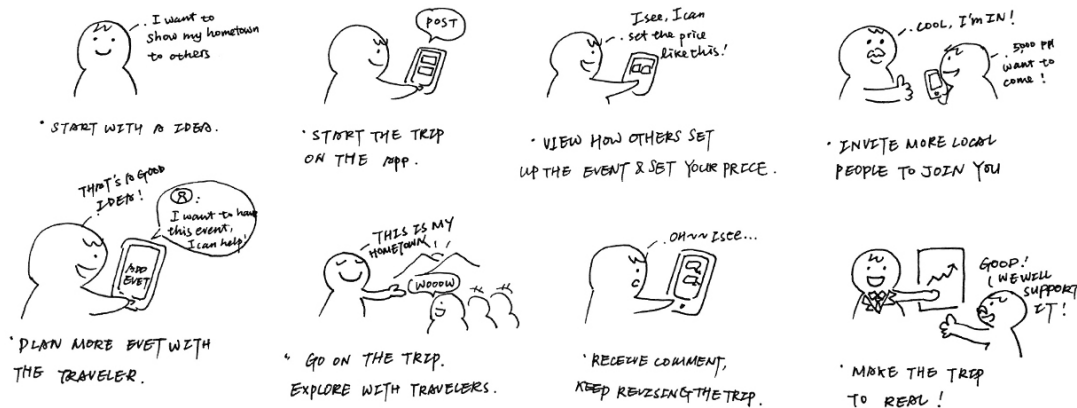


Figure 3.23: Concept Sketching: Trip Manager

risk of making the planned trip into real business.

Service provider defines the people who provide the service, they are developers and designers. With this service, the service provider can get profit by helping start new tours.

Local tourism promoting department is another stakeholder. As the government, their goal is to help attract more tourists to the local area. With the same goal, by funding trips in BookLucky, they could build the trip with lower risks.

Local people are very important stakeholder of the service. They are people who live and work in the local area of Japan. By providing the free accommodation, food, and events to travelers, they can build up the tour with travels and trip manager through the lucky trip. They can also get ideas from the travelers and start new business.

## Service Ecosystem

A service ecosystem (Figure 3.24) was developed after the three fieldwork. The service ecosystem maps out each actors in the service, and their value exchanging in between each other.

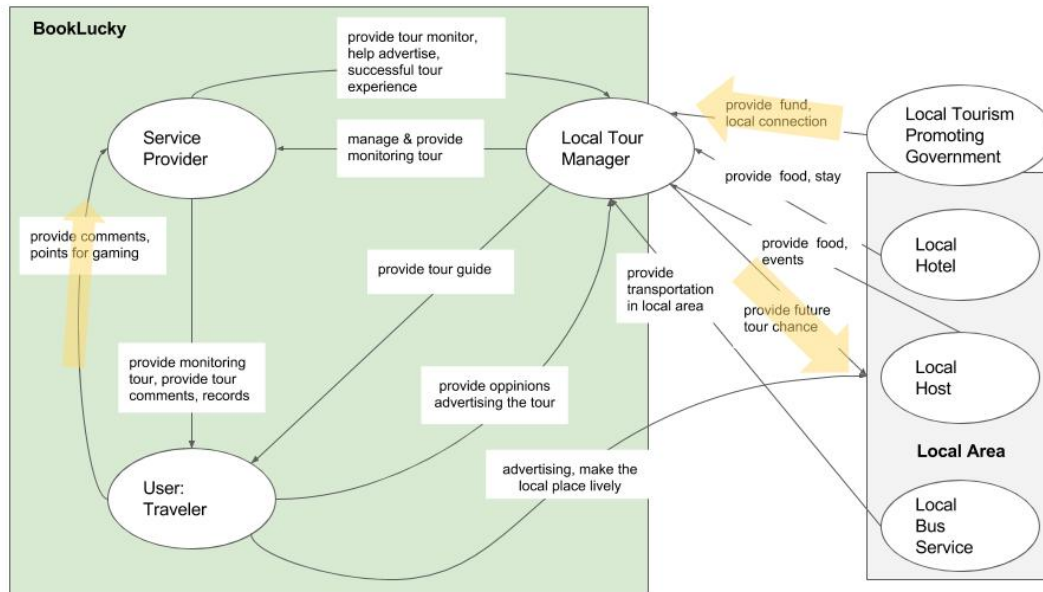


Figure 3.24: Service Ecosystem

## Target Persona

Target Personas (Figure 3.25 and Figure 3.26) are set to help understand the value co-creation of users and the BookLucky service. The main users of the service are people who use the BookLucky Application, hence they are Traveler, and Trip Manager.

Traveler, Rina Kawai, is a 27 years old female editor who lives in Tokyo. She likes to talk to people and listen to their stories, she also has an analytical mind and feels confident to express her own opinions. She likes traveling and coffee. She values experience more than money yet she also has limited income to spend. She also sometimes compares herself to others. Her goal of travel planning is to go to places other people don't know about, and find inspirations and material for her work.

Trip Manager, Yuki Hosogawa, is originally from Gunma prefecture in Japan. She studies Local Area Revival in her graduate school and she would like to practice her learning and start real business with the help of local people she knows. She likes her hometown and would like to introduce her hometown to more people, and change their bias of local Japan.

**Target Persona: Traveler**

Name: **Rina Kawai**

Age: **27**

Sex: **Female**

Current City: **Tokyo**

Hometown: **Chiba**

Occupation: **Editor**

Personal Profile:

Rina is from Chiba prefecture and came to Tokyo when entering University. She found traveling alone fun, she frequently travel with her own.

Working Profile:

She learnt Literature at Meiji University. After graduation, she's got a job at relatively small, but developing IT company. She likes working in the company, but also found managing people relationship is hard.

Mental Model:

See -> imagine, restrict, talk  
Win -> show off, go for more.

Goal:

She wants to refresh when off work.  
She wants to experience something different, and meet new people.  
She wants to travel more in local places in Japan.

Figure 3.25: Target Persona: Traveler

**Target Persona: Tour Manager**

Name: **Yuki Hosogawa**

Age: **24**

Sex: **Female**

Current City: **Kyoto**

Hometown: **Gunma**

Occupation: **Student**

Personal Profile:

Yuki is a student in Kyoto, she is from Gunma prefecture. She likes her hometown and likes talking with people. She loves nature.

Working Profile:

She is a graduate school student and now is having her gap year. She starts to organize the local tour because that helps her future study.

Mental Model:

see -> plan, make group, take notes, announce

Goal:

She wants to introduce her hometown to more people  
She wants to get a lot experience that helps her setting the tour  
She wants to know how to set the tour price

Figure 3.26: Target Persona: Trip Manager



## Use Case

Use Case identifies main activities conducted by stakeholders and lists the key functions of each touch points in the service.

As illustrated in Figure 3.27, stakeholders can get more familiar with the service by checking the service website. The concept video of the service will be shown at the very beginning to get stakeholders excited and invite them to co-create value with the service. The functions of the BookLucky App will be introduced, and comments from stakeholders (traveler, trip manager, and local people) is shown afterwards. With BookLucky Application, Travelers can register account and manage their account information; they can set up avatar to help build familiarity and personalize the experience; they can get service coins by shopping in recommended stores; they can view Lucky Trip information and make booking of Lucky Trips; They can send message in the chat group of booked Lucky Trip. Trip Managers can register account; they can start new trip and view trip popularity information; they can also view other Lucky Trip’s information too set price for their own trip. To clarify, it is possible that Travelers can also become Trip Managers if they want to start their own trip, and vice versa.

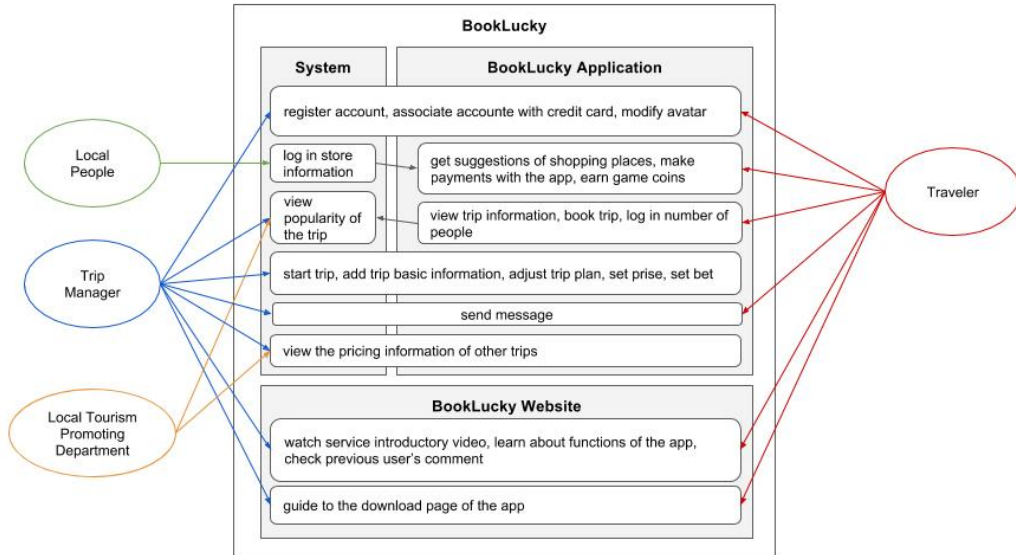


Figure 3.27: Use Case

## 3.4 Prototyping

### Prototyping User Test

To design in contexts and view and value from different stakeholders' perspectives, this research include penitential user in the development process of the design concept. Based on the concept sketching, a rough mock up app with user interfaces(Figure 3.34) were presented to the two potential users(Figure 3.28).

The flow of the user test is illustrated on Figure 3.29. In this design prototype, user(Traveler) has to play a game and compete for the limited chance of the trip. A User Experience Map is developed to illustrate the experience of the service and how user feel in each stage. Interviews were given after users went through the flow, and according to how users thought and felt in each stage, users' desire and friction was defined.

Figure 3.31, Figure 3.32, Figure 3.33 shows the feedback from users in each stage. Before traveling, users find it fun to check in and collect coins. They can view how much coins it might cost for some tour they want to book, hence they have motivation to do more shopping. While booking trips, users find them spend more time in decide which on to book, since they have limited coins and they don't want to waste them. They feel very confident with their final choice. When competing with other players, users feel very excited, but they also feel playing a game isn't necessarily related to the booking process.

### Summary

In short, users find the most attracting point of the service is that they can book trips that few people have been before, and users find this point has a sense of gambling inside. The prototyping test also showed that it was not necessary to use game in the process, because it was hard for users to connect the two goals (booking nice trip, and winning the game) together. With feedback from potential users, the development of the concept is listed as follows: 1) the game part is excluded ; 2) the fact that users are booking from trips that few people knows is emphasized to give a feeling of competing and gambling.

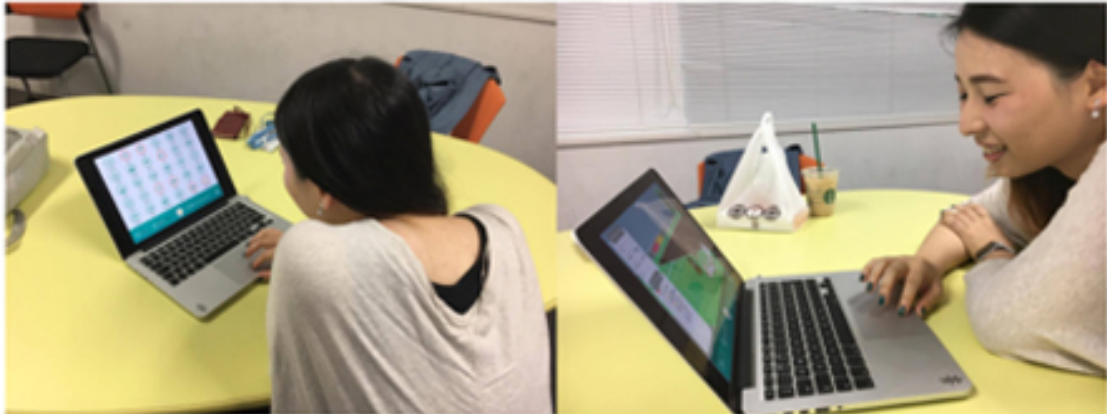


Figure 3.28: Prototyping Test With Potential User

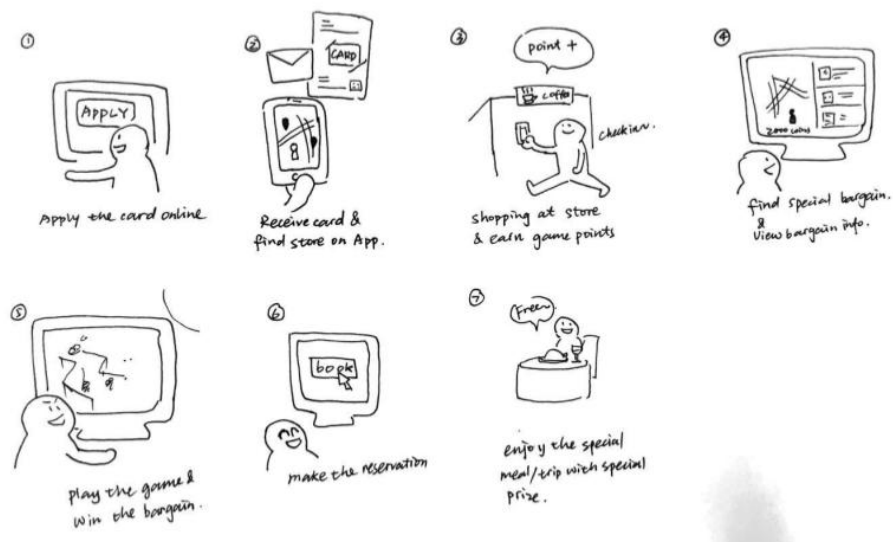


Figure 3.29: Prototyping Test Flow

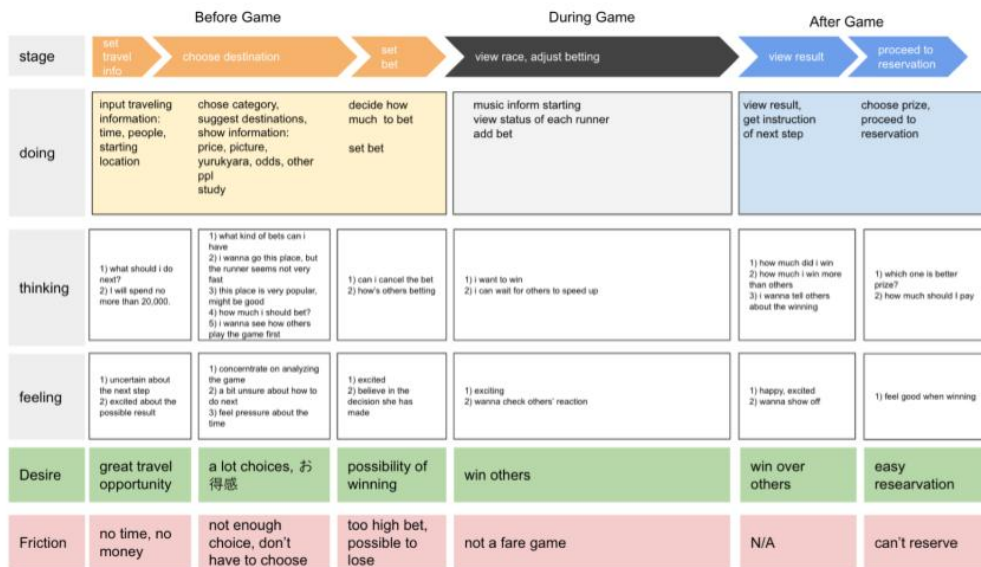
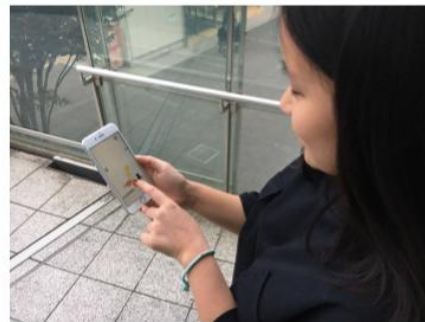
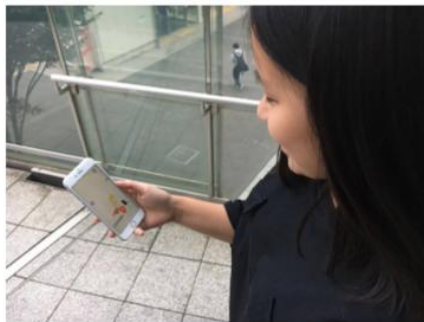


Figure 3.30: User Experience Map

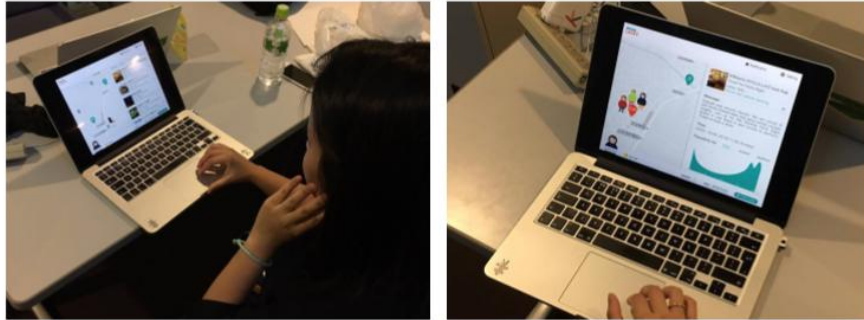
**Skit: 1 check in and earn points**



**value proposed:**  
check in and earn points when shopping

**value cocreated:**  
1. fun to keep check in  
2. wanna go to more stores, wanna use the service to do shopping

Figure 3.31: Test Feedback I

**Skit: 2 view bargain info and make bet****value proposed:**

able to view different bargain information  
 able to compare different bargain information

**value cocreated:**

1. spend more time in decide which one to bet on
2. feel more confident with the one she bet on
3. find it fun checking all the places

Figure 3.32: Test Feedback II

**Skit: 3 play the game and book****value proposed:**

game to compete with other players to earn the bargain

**value cocreated:**

1. very happy and excited when play the game
2. feel a great winning and want to go to the restaurant soon (less likely to cancel the booking)

Figure 3.33: Test Feedback III

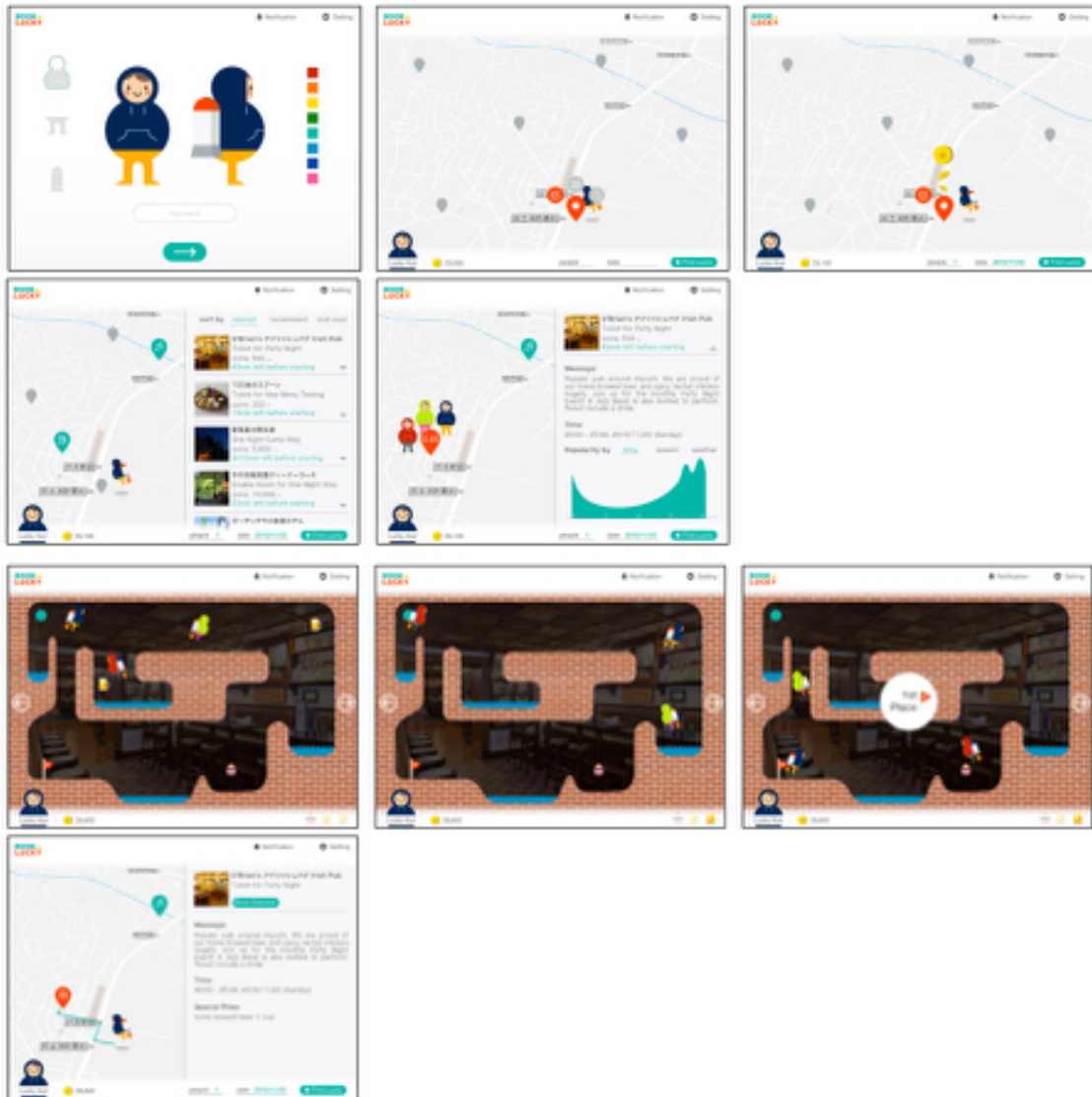


Figure 3.34: Prototyping User Interface

## 3.5 Design Detail

### Brand Identity

Logo of BookLucky Service is shown in Figure 3.35. The naming of the service indicates its gaming style experience. The star in the logo stands for a nice wish and blessing. The service uses 4 main colors: Green #18b5aa, Orange #ff450a, Yellow #fed929, and White #ffffff.



Figure 3.35: Logo

### BookLucky Service

BookLucky is a travel planning and booking service where, Traveler can collect game coins by shopping, use game coins to book Lucky Trip; Trip Manager can post Lucky Trip and manage trip events. Lucky Trip is short period(half day to 3 days) of guide tour in local Japan that's still under developing. Lucky Trip is sponsored by local government and/or local people who would like to host events, provide accommodation, food free for travelers in the beginning, and hence get profit in the future when the trip turns to real business. Trip Manager organize the Lucky Trip and decide on schedule and events. Travelers can also involve in the process of planning trip before and after the trip.

Service blueprint for Traveler is shown in Figure 3.36 and service blueprint for Trip Manager is shown in Figure 3.37.

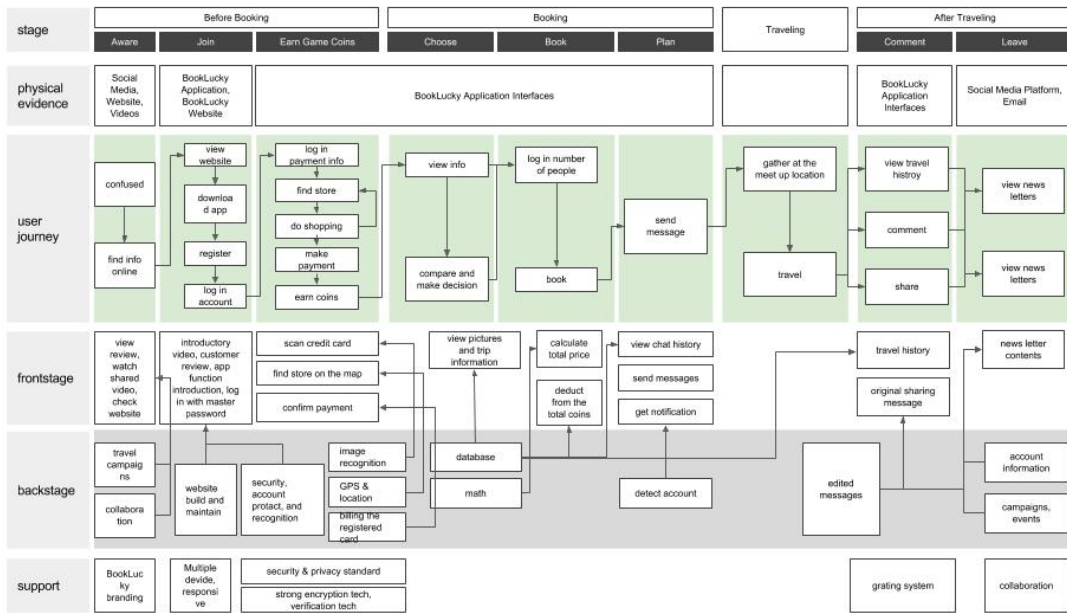


Figure 3.36: Service Blueprint: Traveler

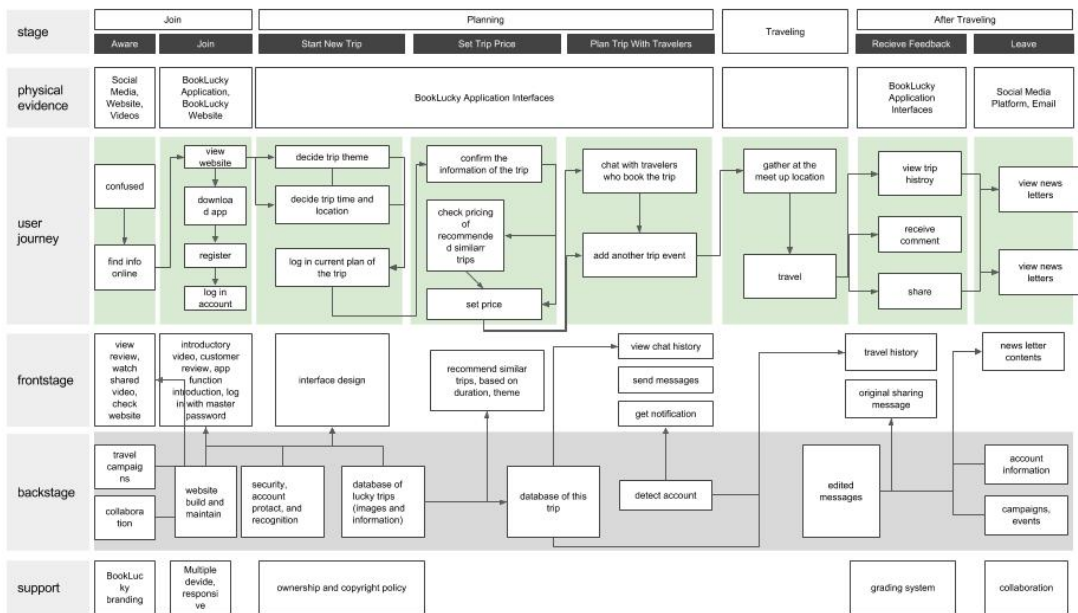
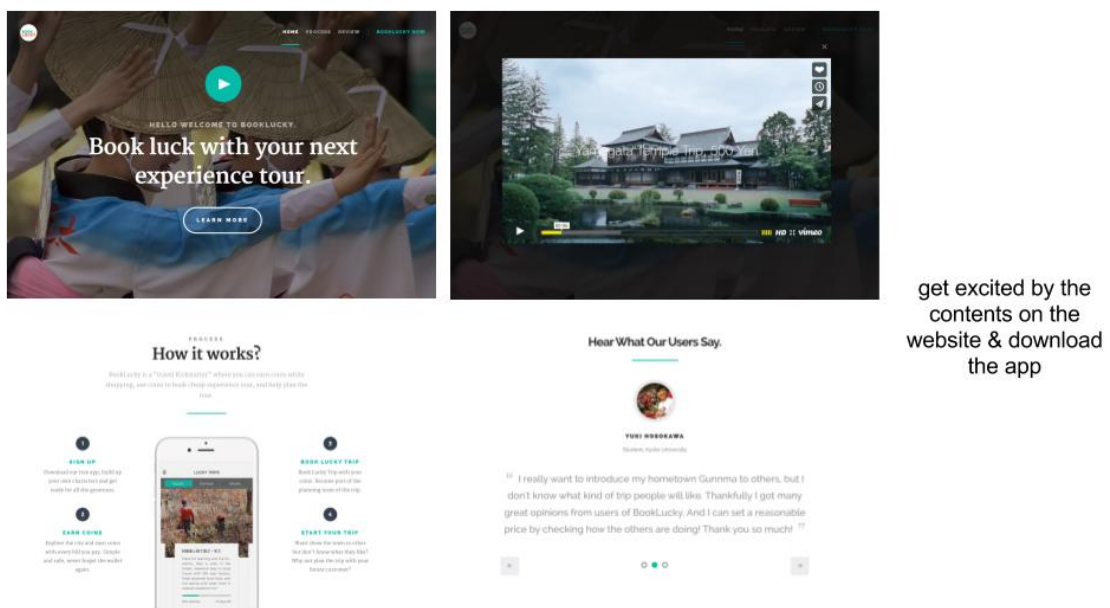


Figure 3.37: Service Blueprint: Trip Manager



## BookLucky Website

Figure 3.38 shows the contents of BookLucky Website, which is expected to be the first touch point with service stakeholders. The website consists of four main parts: firstly, the catch copy of what BookLucky Service is; secondly, a concept video to motivate users to travel more; thirdly, functional introduction of the BookLucky Application; and finally, reviews from different kind of users (Traveler, Trip Manager, Local People) to promote the BookLucky lifestyle, and to attract the right type of potential users.



get excited by the contents on the website & download the app

Figure 3.38: Concept Drawing: BookLucky Website

While opening the website, the user will be shown information as it's shown in Figure 3.39. A warm welcoming of from the service with nice image of traveling in local area of Japan. The "Play" button indicates that there's an introductory video, and the "Learn More" button will lead the user to more features of the service application. The website then shows the main features of the BookLucky

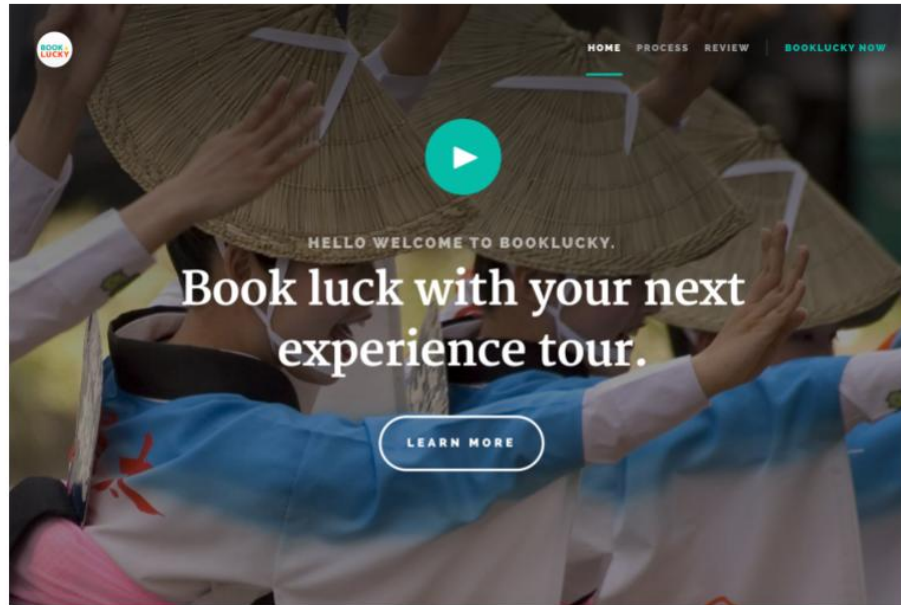


Figure 3.39: BookLucky Website I

application as shown in Figure 3.40. The title of this part clearly shows the information users can get after reading through this part. The subtitle summarizes briefly what the service is in a short sentence. Then the users are guided from step 1 to 4 to learn about more detailed features of the service. The features of the service including: 1) use accounts to manage the information; 2) earn game coins in daily life; 3) use game coins to book special Lucky Trip; and 4) states users can start their own trip to indicate multiple type of users of the app. To emphasize the ZMOT in users, the website then guides users through comments from potential stakeholders, including: Traveler, Trip Manager, and Local People. Finally the website guides the user to download the application and start the service. These processes are shown in Figure 3.41 and Figure 3.42.

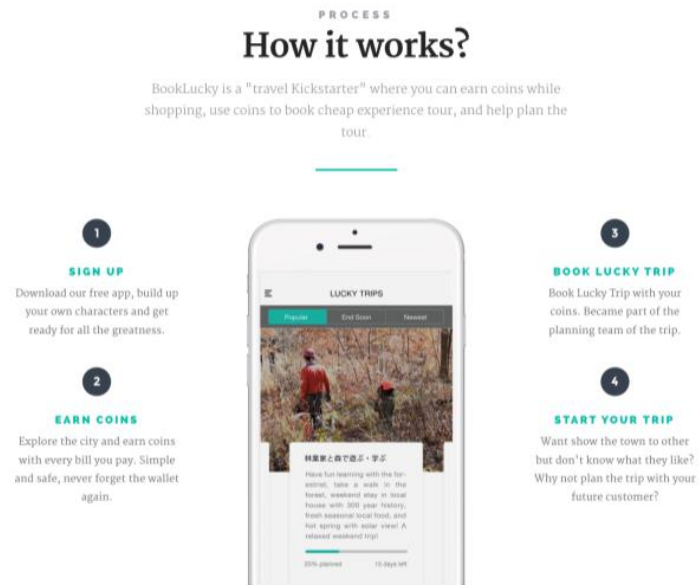


Figure 3.40: BookLucky Website II

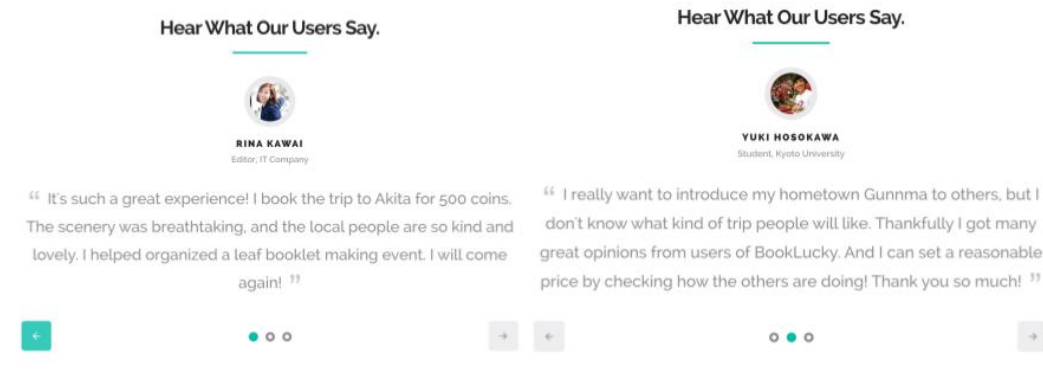


Figure 3.41: BookLucky Website III

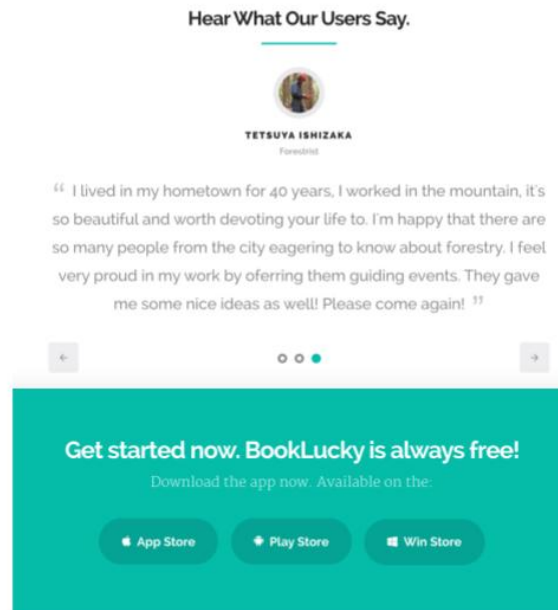


Figure 3.42: BookLucky Website IV

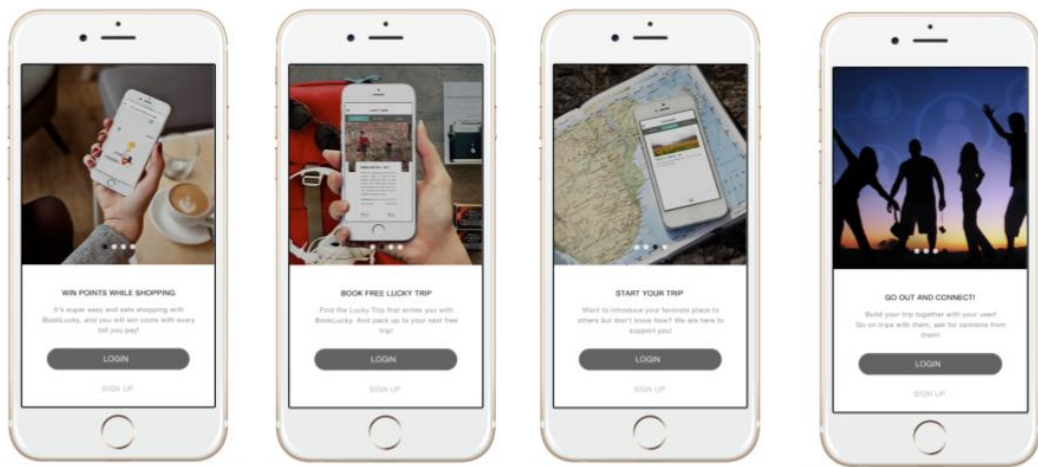
## BookLucky Application

BookLucky Application is the main media where Travelers earn coins, book the travel, plan the trip, and send comments; Trip Managers plan their trip and receive payment from Travelers. Detailed design of each interface is attached with the appendix.

As shown in Figure 3.43, users are firstly presented a walk through of the app. This walk through introduces the function of the app, and emphasized the benefit of using the app, so that users are not only motivated intrinsically because they want to go for fun traveling, but also motivated extrinsically because they can save money for going on adventurous trips, help manager develop the trip, and connect with people.

Figure 3.44 are interfaces for earning coins. Travelers select the stores where they did shopping in on the Map page, and choose "Check Out" and type in amount to pay. Upon scanning the bar code generated, the bill will then be sent to user's registered credit card. And game coins will be given as a reward to shop in the collaborative stores.

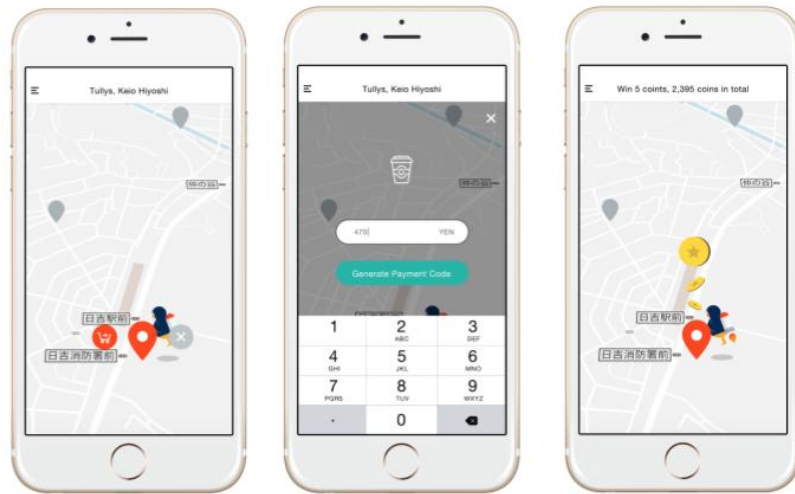
Figure 3.45 shows the main interfaces of viewing and booking Lucky Trip. Lucky



app walk through, introduce how to use the app

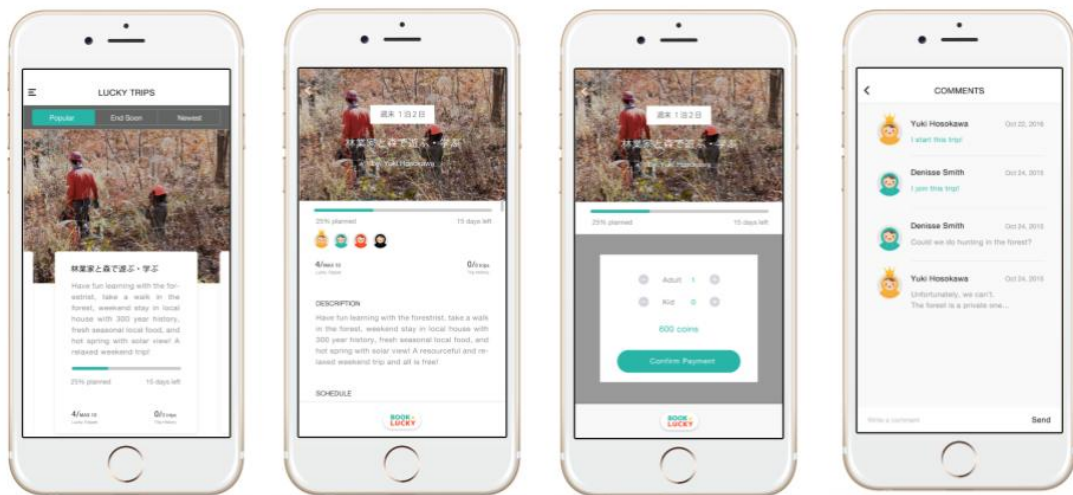
Figure 3.43: BookLucky Application: Walk Through

Trip will be shown based on system recommendation, popularity, and deadline. This is very different from traditional travel booking service since they are more likely to be location based. Trip history will be given to indicate the Lucky Trips are guide trip that's still under development. Traveler can check the basic introduction, the current planned schedule, coins required to book the trip, and future price of the trip. While booking, Travelers put in numbers of people and press the confirmation button. After booking, They will be notified if there's any change in the trip plan, and they can chat with Trip Manager and other Travelers who also book the trip.



shopping and win coins

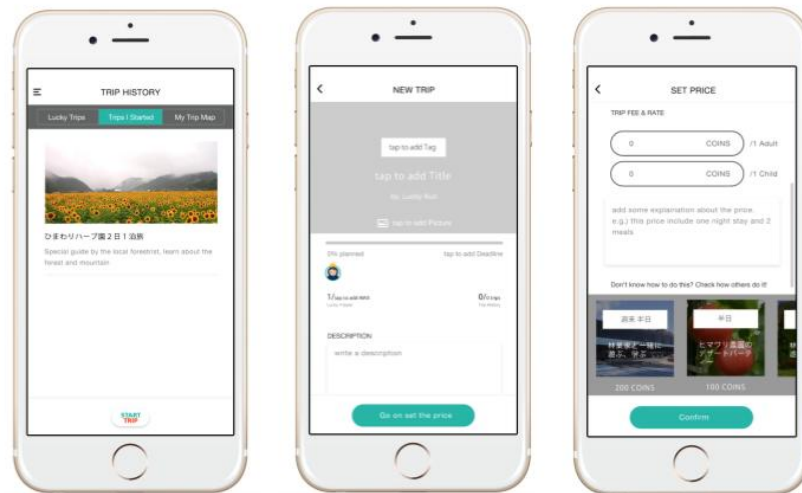
Figure 3.44: BookLucky Application: Win Game Coins



view lucky trip, book lucky trip, comment and help plan the trip

Figure 3.45: BookLucky Application: Book Lucky Trip

Figure 3.46 shows the interfaces to start a new Lucky Trip in the BookLucky App. In "Trip History" page, under "Trips I Started" tab, Trip Manager can check Trips they've been managing, and also start new Trip. While starting new trip, Trip Manager has to fill in introduction and basic scheduling information. When setting the coins and future price, coins and future price of Lucky Trip with similar tags will be shown as reference.



plan the trip on the app

Figure 3.46: BookLucky Application: Start New Trip

## Application Workflow

The following Figures shows the interface design of each page in the BookLucky application, and how they link to each other.










interface						
title						
interactions						
	01 - loading	none, link to page 02 after loading				
	<p><b>WIN POINTS WHILE SHOPPING</b></p> <p>It's super easy and adds shopping with BookLucky, and you will win coins with every sale you pay!</p>		02 - function walkthrough-1	<ol style="list-style-type: none"> <li>1. slide left and right, left to page 05, right to page 03</li> <li>2. login and signup page</li> </ol>		
	<p><b>BOOK FREE LUCKY TRIP</b></p> <p>Find the Lucky Trip that suits you with BookLucky. And mark up to your next free trip!</p>		03 - function walkthrough-2	<ol style="list-style-type: none"> <li>1. slide left and right, left to page 02, right to page 04</li> <li>2. login and signup page</li> </ol>		
	<p><b>START YOUR TRIP</b></p> <p>Want to introduce your favorite place to others but don't know how? We are here to support you!</p>		04 - function walkthrough-3	<ol style="list-style-type: none"> <li>1. slide left and right, left to page 03, right to page 05</li> <li>2. login and signup page</li> </ol>		
	<p><b>GO OUT AND CONNECT!</b></p> <p>Build your trip together with your smart. Do an trip with them, ask for opinions from them!</p>		05 - function walkthrough-4	<ol style="list-style-type: none"> <li>1. slide left and right, left to page 04, right to login and signup page 06</li> <li>2. login and signup page</li> </ol>		

Figure 3.47: BookLucky Application User Experience I




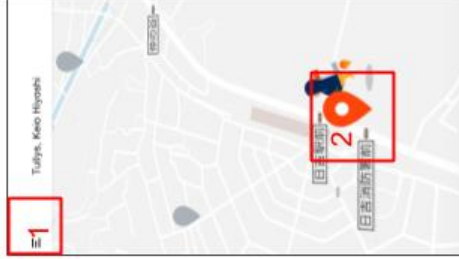

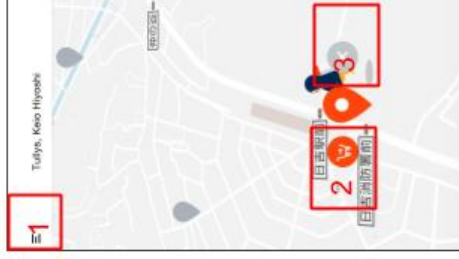

interface	title	interactions
	06 - login and signup	1. go back to 02 2. input account information 3. sign up and go to 07
	07 - main-1	show current location information in map view, allow check in 1. menu, go to 08 2. check in, go to 09
	08 - menu	menu page, lead to different main pages, view coins, set profile etc. 1. slide back to 08 2. go to Lucky Trip page 3. go to Trip History page 4. go to Top Up page 5. go to Profile page 6. go to Settings page
	09 - main-2	check in and make payment 1. menu, go to 08 2. go to 09 3. go to 07
	10 - earn coin-1	make payment and earn coin 1. go to 08 2. input payment amount 11 3. go to 12 4. go to 07

Figure 3.48: BookLucky Application User Experience II

interface	title	interactions
	11 - earn coin-2	input payment amount 1. go to 08 2. go to 10 3. go to 12 4. go to 07
	12 - earn coin-3	confirm payment, with the cashier person in store 1. menu, go to 08 2. confirm payment 13 3. go to 07
	13 - earn coin-4	after payment, win coins 1. go to 08 2. go to 09
	14 - lucky trips-1	information of lucky trip 1. menu, go to 08 2. arrange by popularity 3. arrange by deadline 4. arrange by new-old 5. information of the trip, go to 16 6. slide left and right to other trips 15
	15 - lucky trip-2	information of lucky trip 1. menu, go to 08 2. arrange by popularity 3. arrange by deadline 4. arrange by new-old 5. information of the trip, go to 16 6. slide left and right to other trips 14

Figure 3.49: BookLucky Application User Experience III

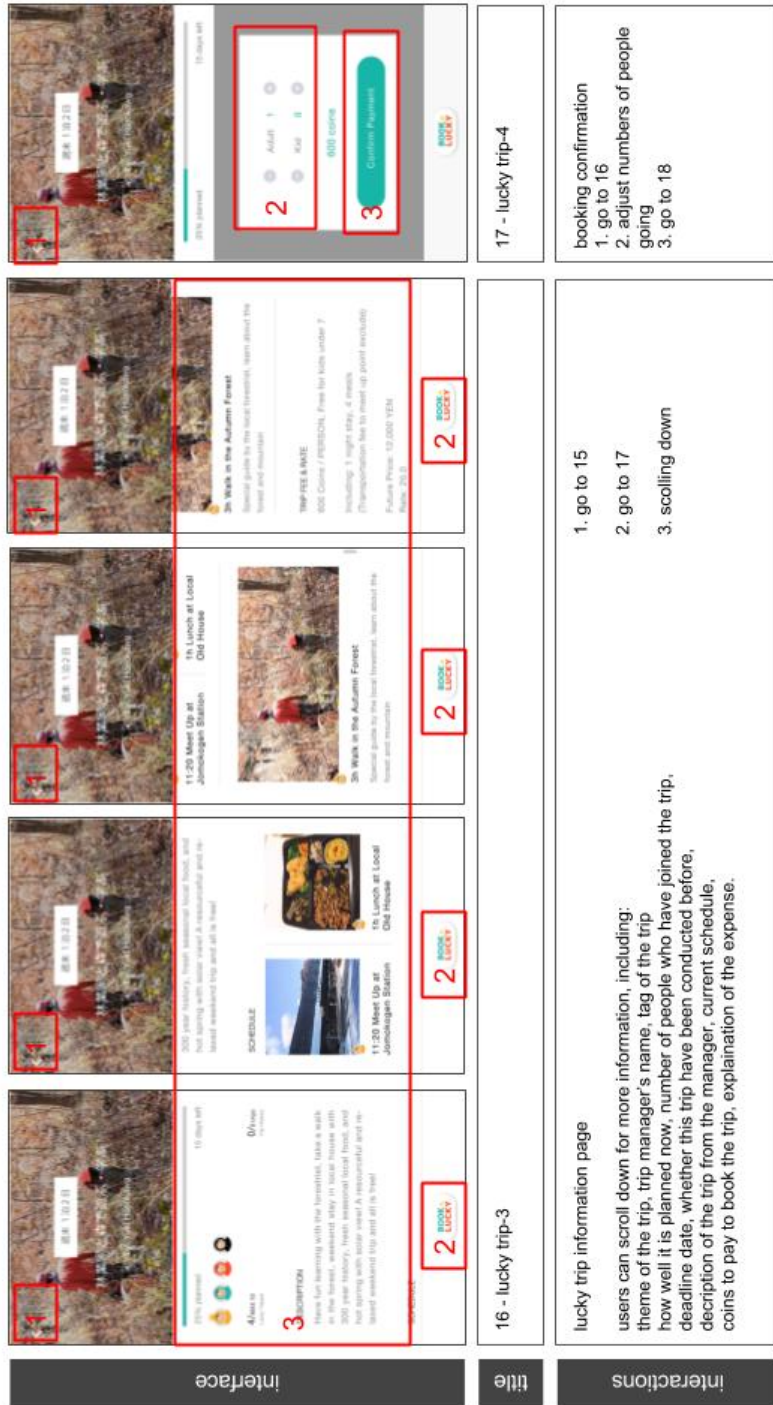


Figure 3.50: BookLucky Application User Experience IV

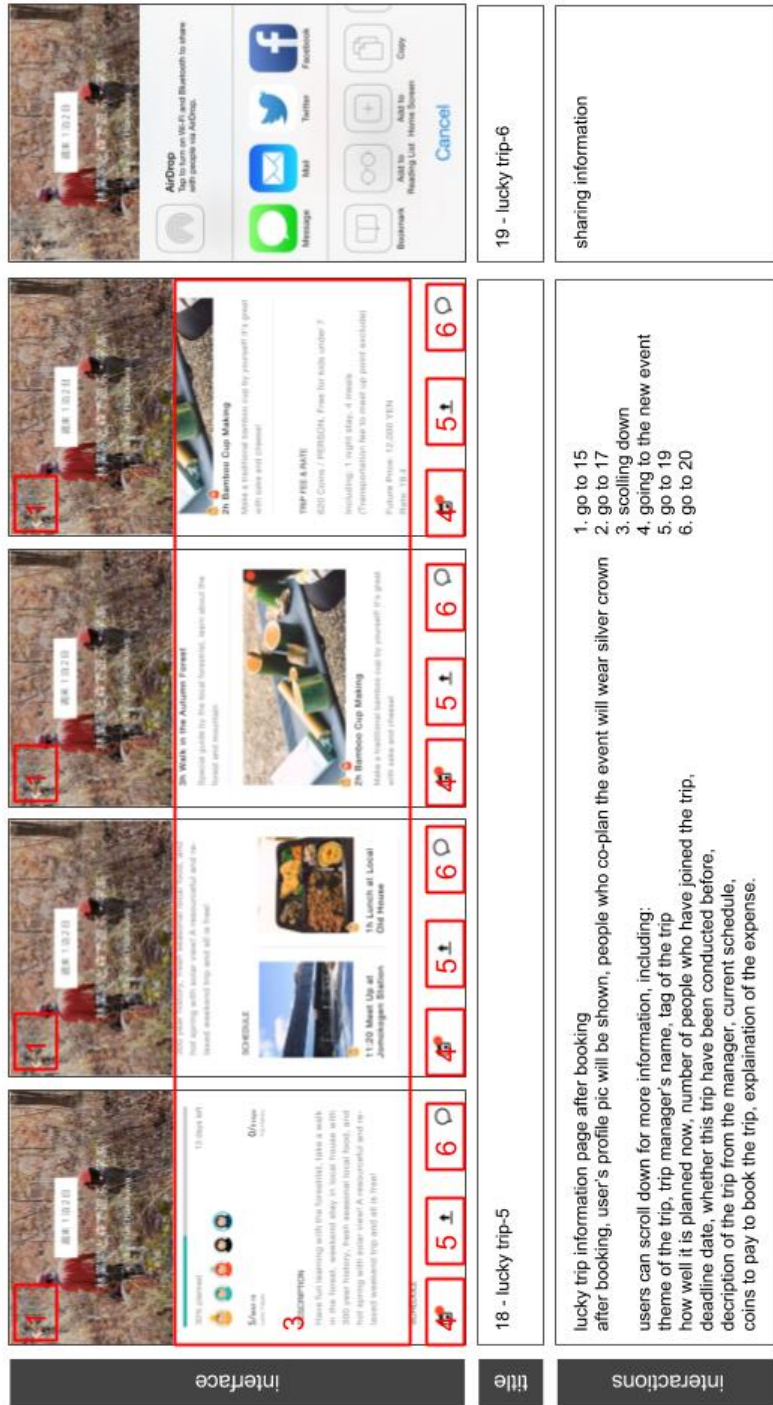


Figure 3.51: BookLucky Application User Experience V


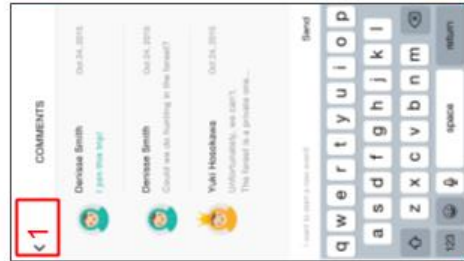



interface	title	interactions
	20 - comment	comment page 1. go back to 18 2. text
		
		
	21 - trip history-1	trip history page 1. go to 08 2. slide to 22 3. go to 18 4. go to this page 5. go to 23 6. go to 27
	22 - trip history-2	trip history page 1. go to 08 2. slide to 22 3. share this page 4. go to this page 5. go to 23 6. go to 27

Figure 3.52: BookLucky Application User Experience VI

interface		23 - trips i start-1	<ol style="list-style-type: none"> <li>1. go to 08</li> <li>2. go to trip information</li> <li>3. go to 24</li> </ol>
		24 - trips i start-2	<ol style="list-style-type: none"> <li>1. go to 23</li> <li>2. slide down, add information</li> <li>3. go to 25</li> </ol>
		25 - trips i start-3	<ol style="list-style-type: none"> <li>1. go to 24</li> <li>2. slide down, add information</li> <li>3. go to 26</li> </ol>
			<ol style="list-style-type: none"> <li>1. go to 24</li> <li>2. slide down, add information</li> <li>3. go to 26</li> </ol>
			<ol style="list-style-type: none"> <li>1. go to 24</li> <li>2. slide down, add information</li> <li>3. go to 26</li> </ol>

Figure 3.53: BookLucky Application User Experience VII

interface	title	interactions
	26 - trips i start-4	<p>1. go to 08                  2. go to trip information                  3. go to 24                  4. go to 21                  5. go to this page                  6. go to 27</p>
	27 - trip map	<p>trips the user has been to listed on map                  trip with gold crown means trip the user starts                  trip with silver crown means trip the user co-planned                  trip without any decoration means trips the user went                  1. go to 08                  2. share the info</p>
	28 - promotion notification-1	<p>the app will send notification of collaborative stores to win double coins                  1. go to 08                  when it's time to promote, go to 29</p>
	29 - promotion notification-2	<p>show promotion information                  1. go to 08                  2. go to 28                  3. go to 29</p>
	30 - promotion notification-3	<p>show promotion store location and direction                  1. go to 08</p>

Figure 3.54: BookLucky Application User Experience VIII

# Chapter 4

## Evaluation

This chapter evaluates the aforementioned design concept by presenting a working prototype of the website and application stated before to user, observing how they experience the design prototype, and modifying the prototype based on users' feedback. Test Objective section explains the method used to evaluate the working prototype. Result section describes the observation of users when presented the working prototype. Discussion section analyzed the observation and feedback of users. Finally, Design Development section explains the development in the design based on user's critique.

### 4.1 Test Objective

In order to proof BookLucky service is attractive to travelers, the working prototypes were tested among three users(Figure 4.6). The main focus of this evaluation is to compare users' attitude towards traveling in Japan before and after the use of this service, and compare users attitude and towards usual guide trip and towards BookLucky service. Hence a user test is divided into three parts: pre-test, using of BookLucky service, and post-test.

Pre-test is designed to collect basic information and users' attitude towards traveling in Japan. The pre-test was conducted in the form of interview, and seven open-ended questions were asked, including: genders, ages, period of staying in Japan, Japanese cities they have traveled to before, time of the last traveling in Japan, top three concerns of travel planning, and top three concerns of planning travel in Japan.

After collecting basic information, participants were asked to use the BookLucky website and application for 20 minutes. The author observed and recorded users reaction while they use the service. Users' environment when using the service of BookLucky was not controlled during the test, since the author wanted to ob-



serve how users use the service in real life, and how they interact with the service through the application and website. After booking the trip in the service, users are taken to a 30 minutes tour to simulate the traveling experience. The whole flow of the test is shown in Figure 4.7, Figure 4.8, and Figure 4.9.

In the second session, participants are shown a collage video on the BookLucky Website. The video is a 1 minute collage video. The content of the video is divided into 4 parts. The first part is video clips of traveling in different kind of local areas, three types of travels are listed: cultural traveling (traveling to an old temple and talking with the monk), agricultural tour (traveling to an apple farm, talking to the owner while tasting the apple), and adventurous trip (hunting for butterflies around waterfall in summer, riding horses in the forest in autumn); subtitle of this part shows the location and price of the trip. The second part of the video is more about emotional stimulation. The video shows values that the users may co-create with the service to the users to facilitate zero moment of truth. These values including: exploring mind of traveling, happiness of going to adventurous travel, chance to make friends with local people and other travelers. The third part of the video is from the first person perspective, using subtitles of "I am a traveler" and "I am an explorer" to help convey the value of BookLucky to travelers, that traveling is about more exploring, and having adventurous mind. Finally, the forth scene shows the logo of BookLucky to motivate viewers to explore more features of the service. Note that all the video contents were not taken by the author. It is a collage video, by editing video currents found online, the author tried to make a prototyping video that serves the function of inspiring users and encouraging them to travel. The storyboards of the video are shown in Figure 4.1, Figure 4.2, Figure 4.3, Figure 4.4, and Figure 4.5.

Finally, after experience the service through service platforms, another interview was done to collect information about their attitude towards traveling, and attitude towards the proposed type of travel. The process of the validation is shown in Figure 4.6.

Scene 1: Cultural Trip

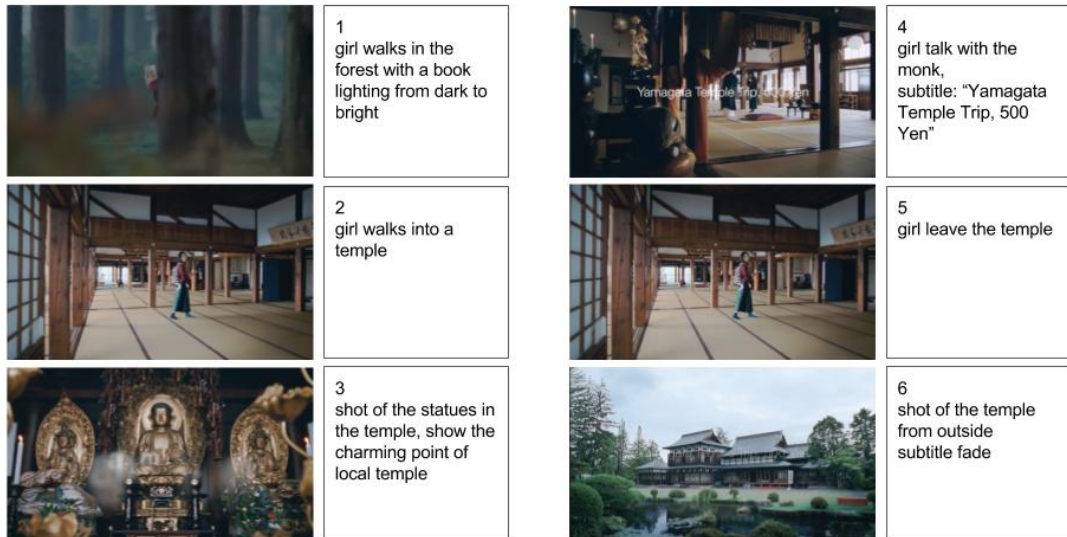


Figure 4.1: Storyboard of Collage Video I

Scene 2: Agricultural Trip

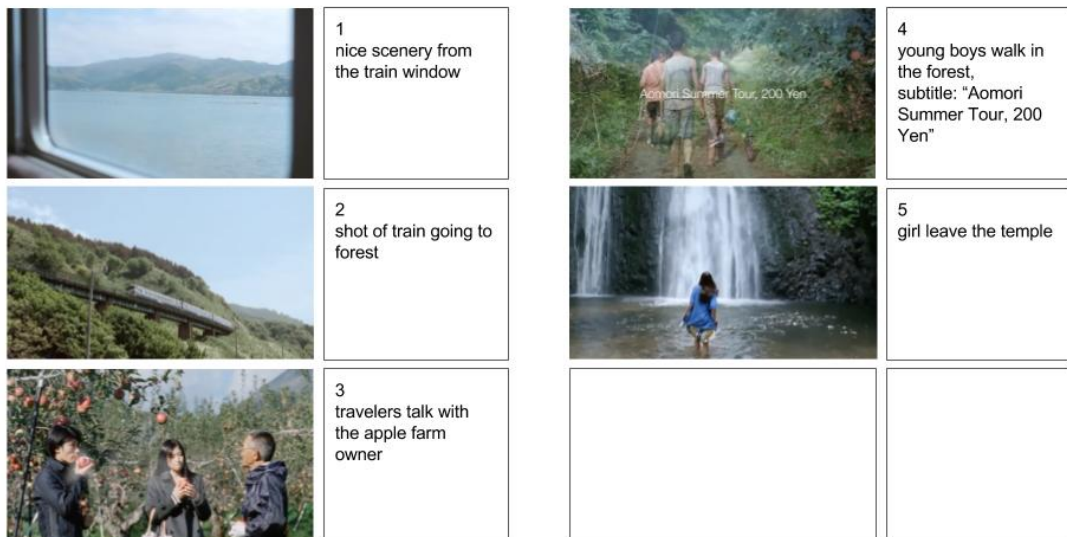


Figure 4.2: Storyboard of Collage Video II

Scene 3: Adventurous Trip

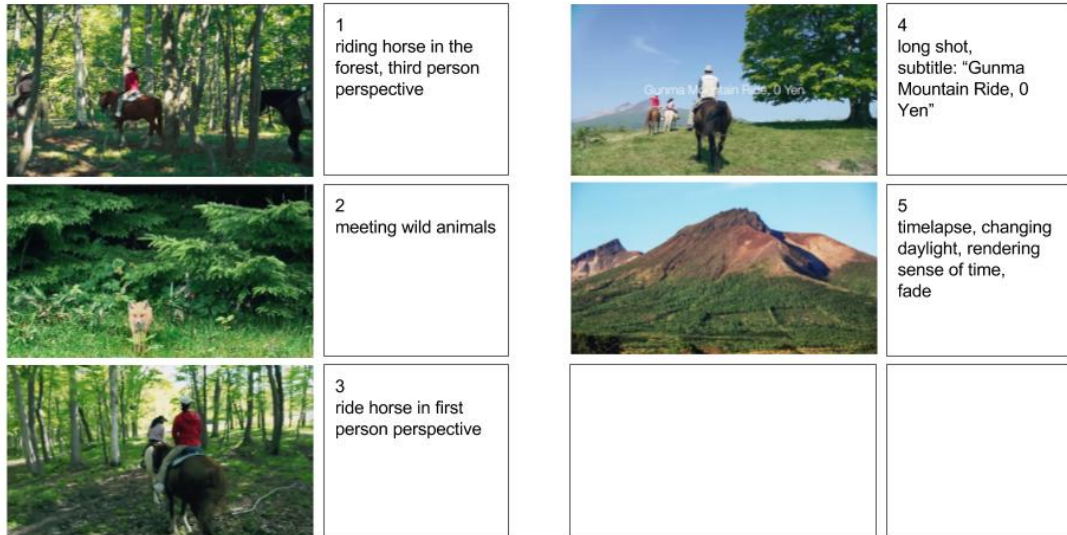


Figure 4.3: Storyboard of Collage Video III

Scene 4: Emotional Stimulation



Figure 4.4: Storyboard of Collage Video IV

Scene 5: Defining and Ending

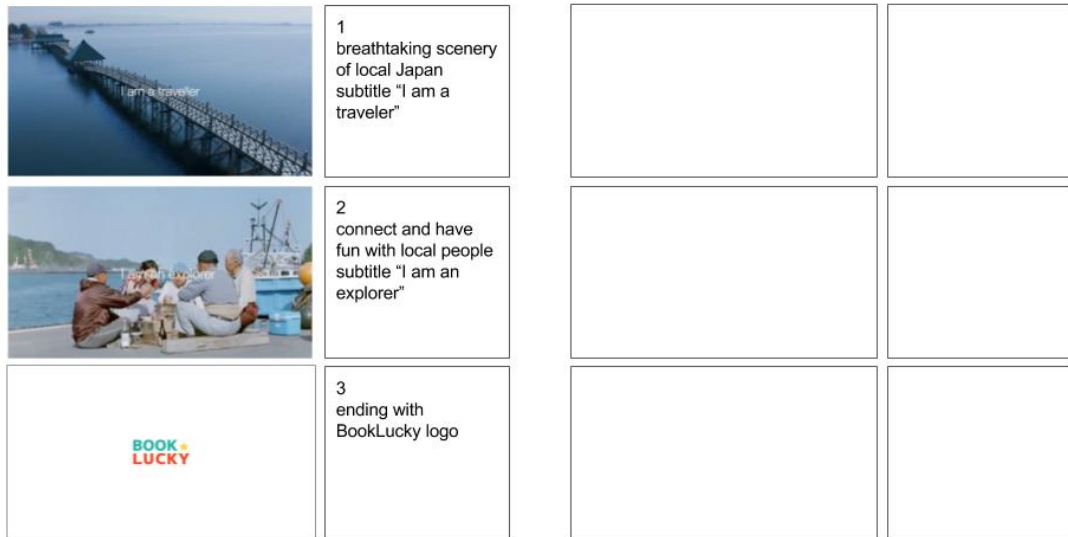


Figure 4.5: Storyboard of Collage Video V



Figure 4.6: Test of Working Prototype



Figure 4.7: Flow of Test I

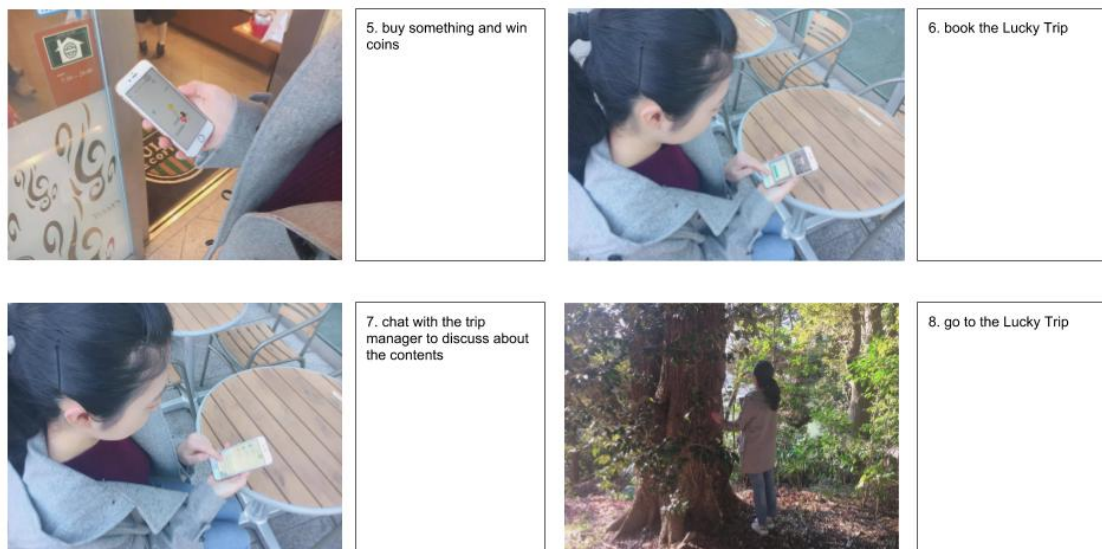


Figure 4.8: Flow of Test II

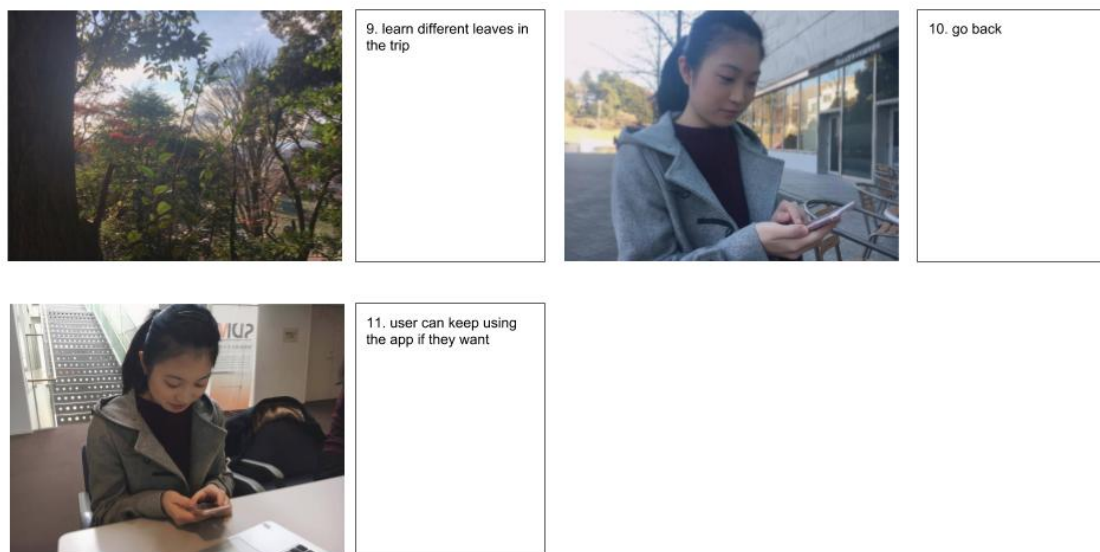


Figure 4.9: Flow of Test III

## 4.2 Result

### Pre-Test

All users evolved in the test have been living in Japan for more than 3 years. They have traveled to most major cities in Japan. The detailed information from pre-test part is summarized in Figure 4.10. When traveling, users prefer to go to places with less tourists attractions.

### Using of BookLucky Service

The observation of each user while they use the service was described as following. User A watched the video on the website, she was surprised by the cheap price of the trip, but soon she found it was because she has to contribute to the trip as well. She browsed through the reviews on the website and felt more released. She download the app on the phone, and find it no problem to use the app. She is very familiar with smart phone apps. After experiencing the shopping and earning coins, she found the app very attractive to her because she thought the characters were cute. When browsing the Lucky Trip page, she found the trips interesting,

	Gender	Age	Period of say in Japan	Traveled cities in Japan	Last travel	Top 3 concerns when planning travel	Top 3 concerns when planning travel in Japan
User A	female	27	5 years	Tokyo, Kyoto, Osaka, Nagoya, Enoshima, Kagoshima	August, 2016	<ol style="list-style-type: none"> <li>1. review of other travelers</li> <li>2. don't want to go to place with too many people</li> <li>3. price and whether it worth</li> </ol>	<ol style="list-style-type: none"> <li>1. don't want to go to place with too many people</li> <li>2. price and whether it worth</li> <li>3. whether everyone likes the plan</li> </ol>
User B	male	26	26 years	Tokyo, Kyoto, Osaka, Nara, Nikko, Hakone, Kamakura, Okinawa, Hokkaido, Nagasaki, Kagawa, Nagoya	October, 2016	<ol style="list-style-type: none"> <li>1. review of other travelers</li> <li>2. safty</li> <li>3. internet connection</li> </ol>	<ol style="list-style-type: none"> <li>1. whether the trip is well planned</li> <li>2. less people</li> <li>3. theme of traveling</li> </ol>
User C	male	28	4 years	Tokyo, Kyoto, Osaka, Nagoya	June, 2016	<ol style="list-style-type: none"> <li>1. non-tourist attractions</li> <li>2. theme of the tour</li> <li>3. price</li> </ol>	<ol style="list-style-type: none"> <li>1. non-tourist attractions</li> <li>2. theme of the tour</li> <li>3. price</li> </ol>

Figure 4.10: Summary of Answers from Pre-Test

and she spent about 3 minutes to check each Lucky Trip's basic information. When she finally decided to use her coins, she pressed the "BookLucky" button and input the number of people. She kept checking the post, and while she received the new event notification, she was very happy. She then realized she can also chat with the planner of the trip, so she talked in the group and introduced herself. She found it nice to talk with the small group of people who will go to travel with her before the traveling. She also found that she was more motivated to earn more coins because she can then use it to book another trip.

After watching the video, User B found said to his friend who sat beside him: "Oh, I haven't been traveling for so long." And he asked the observer: "Is this Japan?" When knowing that all the places appeared in the video are in Japan, User B was very excited about using the service. He read through the description and went to experiencing the application. When he uses the application, he was more attracted by the trips and pictures given in each Lucky Trips. He was very excited about going to the local Japan, even though he has spent more than 20 years in Japan. He appreciated that each Lucky Trips were listed in activities but not based on destinations like other booking services. "Since it's quite trip, it would be fine going anywhere." But he also admitted that if he was planning to spent his

cherish holiday time, he would not chose this service, because he felt there was a risk to spend his time in undeveloped trips.

User C also found it very attracting watching the video. He found the coins collecting part very playful, and related the process to Ingress game. He said he would like to kill time with this feature and this would make him go to other stores. When experiencing the app, User C spent most of the time chatting with the planner of the trip. He felt he wanted to start his own trip on the service, and he found the tips from the app to set coins and future price very helpful. He also thought the Trip Map feature very useful since he can explain to his friends where he went with this feature more easily.

### **Post-Test**

After experiencing the app for 20 minutes, users were encouraged to share their thoughts and critiques on the service, the website and the application.

User A said she never knew she can plan the trip with others, and she found it exciting to experience the real rural Japan. She also found it attractive to go to places her friend haven't been to before. She admitted that she wouldn't start her own trip in the service. But if her work was related to trip planning, she would like to use this service to impress her boss. She thought that this kind of Lucky Trip might not be very profitable compared with guide tours planned business centrically, but it would be very welcomed among travelers, and this would help the company stand out in the industry.

User B said he would only want to contribute to the planning of the trip if he'd still keep connection with the people he would be traveling. He wouldn't mind if the trip is not well planned, and he said: "This is more like an adventure."

User C said he would like to get more help when planning the trip. He said since the Lucky Trips introduced in the service were more like short term travel plans, he would spend the five days in the week to collect coins, and then go on Lucky Trips in the weekend.

## **4.3 Discussion**

### **Findings**

According to the result of the evaluation, there are four main findings. These findings helped develop the concept.



1. Rather than deciding where to go, travelers who have been to most major cities in Japan find deciding what to do during traveling more attractive and important.
2. Travelers value connections and building up friendly relationships with local people.
3. Travelers feel they can start their own trip after experiencing the Lucky Trip and help planning Lucky Trip. But motivations other than making money should be emphasized.
4. Individual Trip Manager(Trip Manager who doesn't belong to an organization) will need more help in the starting the trip.

## Customer Journey Map

The experience of the users with the service was illustrated in a customer journey map as shown in Figure 4.11.

Users' emotional change while using the service based on observations was illustrated by the polylines. Positive emotions include happy, surprised, excited, touched; while negative emotions include confused, uncertain, angry, unhappy, disappointed. Overall, the three users had positive feedback towards the service. They all experience relatively positive emotion when leaving the service, which allows them to come back again. The negative emotion appeared when they needed to log in personal information. Hence technology to help keep the information safe and secured will be needed, and that the service is protecting the information of user should be conveyed through the design.

## Co-Created Values

Overall, users were happy with the core value, adventurous and gameful travel booking and traveling experience, that the author proposed. Users also co-created value with the service after using the prototype, and these co-created value are listed below:

User A: She wants to travel more after using the service. She learns about how to plan a trip. She finds it easier to make friends and keep connection with people she travel with.

User B: He wants to connect to more local people. He thinks there are still a lot things he doesn't know and places he hasn't been to in Japan. He is willing to go to more rural places and changes his bias of rural places and people from rural area.

User C: He wants to go to more places to collect coins. He finds a new way to kill time. He is more willing to share this traveling experience. He wants to use this service to plan trips that fit his interest and hence find more friends with same interest.

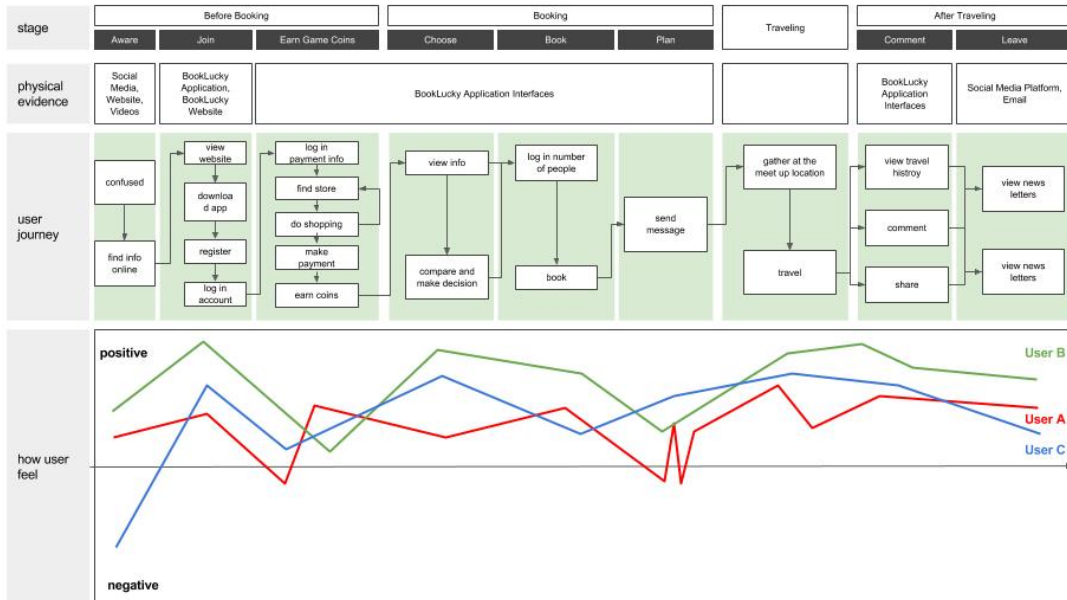


Figure 4.11: Customer Journey Map

## 4.4 Design Development

Based on the findings of the evaluation, the following developments were made:

1. New Badge Function is added to allow Travelers to give reviews to the Lucky Trip they have been to.
2. A tutorial session is added in the Trip Manager’s service blue print, to help them develop the trip.

Badge Function is shown in Figure 4.12. The badge function can motivate travelers to travel because they can give their comments to the Lucky Trip they went to, and their comments count. Trip Managers and Locals can refer the badge reviews they got to set the market for future tours. Future travelers can also review the badge to have a basic idea of the tour.

A revised service blueprint of Trip Manager is shown in Figure 4.13. The revised part was marked with red color.

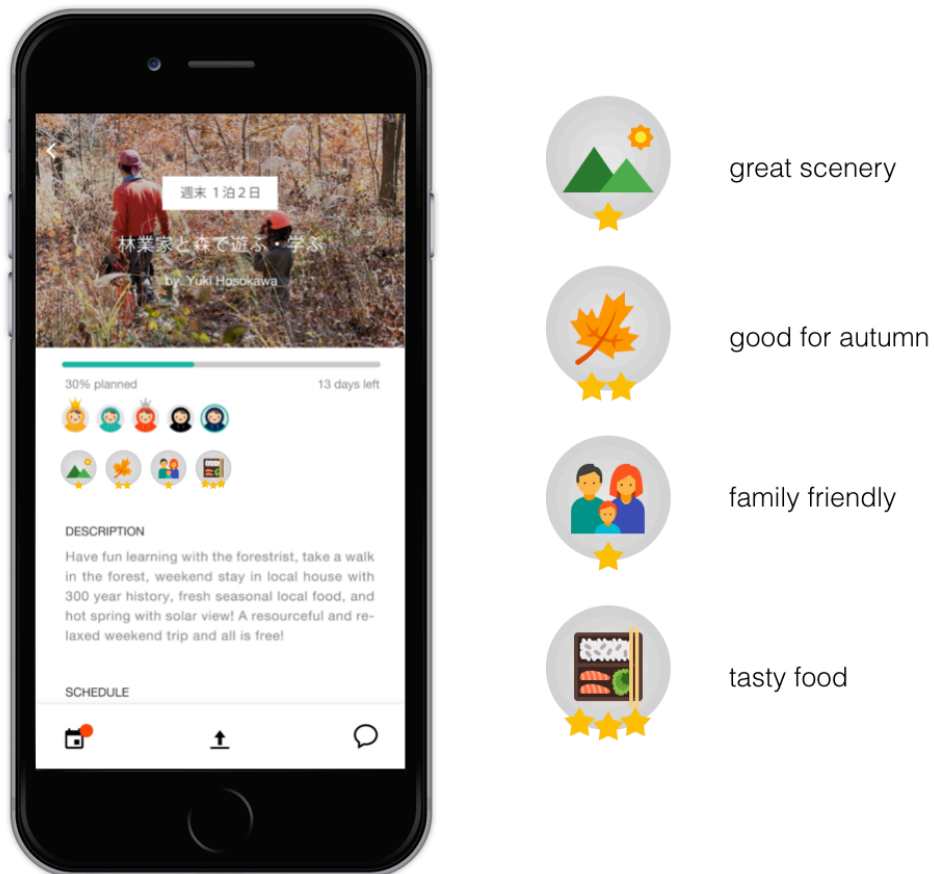


Figure 4.12: Badge Function for Traveler Review

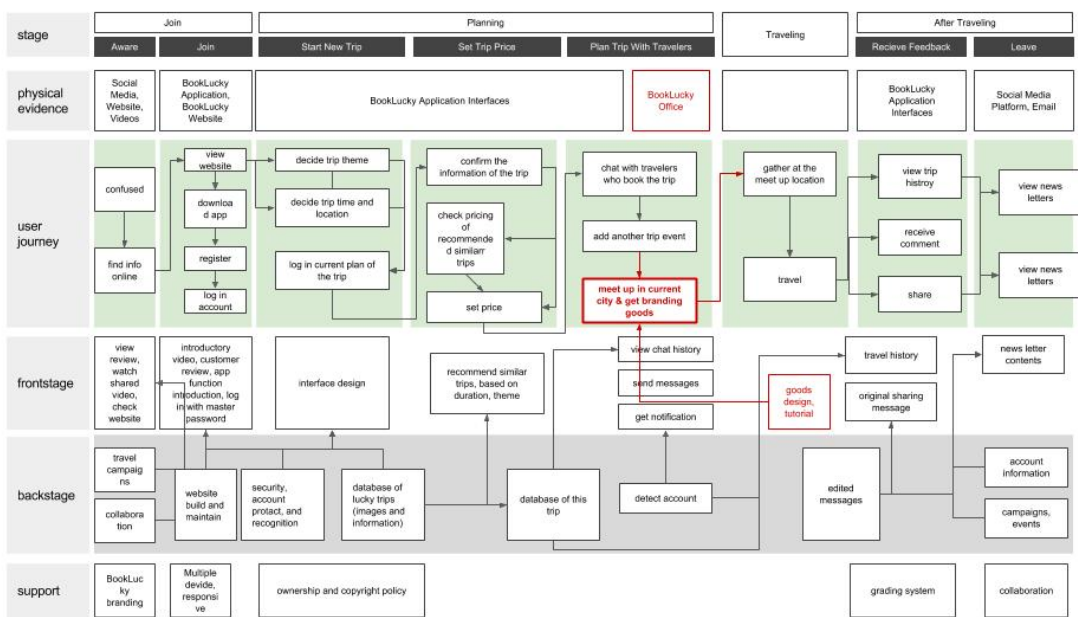


Figure 4.13: Revised Service Blueprint for Trip Manager

# Chapter 5

## Conclusion

### 5.1 Conclusion

In this research, the author proposed the gameful travel planning service, BookLucky. The service is designed for two type of users: Traveler, who wants to have adventurous and fun travel experience in Japan; and Trip Manager, who wants to start guided trip in local area of Japan. Five stakeholders are evolved in the service: Service Provider, Traveler, Trip Manager, Local People and Business, and Local Tourism Promoting Organizations.

The service of BookLucky provides a new kind of traveling experience for Travelers, where they can collect game coins while shopping, use game coins to book Lucky Trip that is still under developing, and take part in planning the trip. For Trip Managers, the service provides them a chance to build the trip with their users, and help lower the risk of starting guide travel business.

With the service of BookLucky, Travelers are motivated to travel more in local area of Japan. The service facilitates value exchange and co-creation among its stakeholders, and it is hence promising that more successful trips to local places would be started with the help of BookLucky service.

This research used findings from ethnographical researches on: 1) horse racing gambler, 2) guide of the local trip, 3) trip manager of local trip, and designed the traveling experience that helps travelers feel exciting about travel planning and traveling, and the experience that benefit all stakeholders evolve in the service. This research implemented the abstract theory into the practical context, using theory of service innovation, bridging the gap between tourism industry and gameful experience design.

## 5.2 Future Works

### Business Model

This research mainly focuses on the design of the service. Yet to make the service of BookLucky a real business, business model should also be considered. Based on the service ecosystem mentioned in chapter 3, the author designed a brief business model for the service of BookLucky, shown in Figure 5.1.

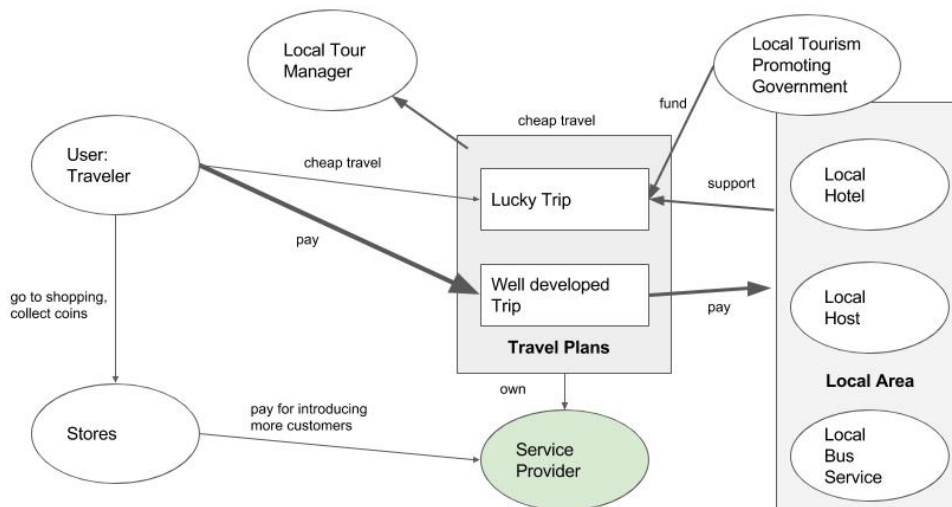


Figure 5.1: Expense Flow of the Service

The service can basically get profit through two ways. The first one is collaborating with stores, by attracting more users to go shopping in stores and hence earn coins, stores also get benefit, hence the service can get a bit profit from the store. The second and the more important way to get profit is from developed trips. BookLucky service helps Trip Manager and Local People develop local guide trips, and hence can get profit from developed trip.

### Future Design for Trip Manager

As discussed previously, the motivation of Trip Manager to start the guide trip is not very clear currently. According to the results from the previous chapter, it

is promising that through going on Lucky Trips, Travelers would feel like to start their own guide tour on BookLucky. Yet future studies should be done to proof this point.

Furthurmore, the service proposes a co-design method to Trip Manager. As mentioned in Chapter 3 previously, the Trip Manager will need to be given a workshop previously to help them connect with each other and hence build a community, and to help prepare them for the co-design process of the Lucky Trip they manage. The content of the workshop needs to be taken into consideration in the future.

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