



2016

Nien Ting Chung

SERVICE DESIGN

PORTFOLIO

Nien-Ting Chung

A UX Researcher, Photographer and Travel addict

PROFESSIONAL EXPERIENCE /

- 2014 - Present** **Scenario Lab Co., Ltd.**
UX Researcher
- Conducting qualitative interviews
 - Integrating and analysing user experience data
 - Producing LEGO prototyping videos to communicate with users and R&D teams
 - Planning and hosting participative design workshops
- 2009 - 2014** **Touch Centre of National Cheng Kung University**
Research Assistant
- Designed interactive devices and maintained it well
 - Guided exhibition tour of smart living in English
 - Investigated and Collected data of Field research

EDUCATION / Double Major

- 2009 - 2014** **National Cheng Kung University**
B.Sc., Psychology
- 2009 - 2014** **National Cheng Kung University**
B.A., History

AWARDS /

- 2013 - 2014** **Conference on Infant Language Development (Spain)**
Honorable Mention
- 2009 - 2014** **National Cheng Kung University**
First Place Award



PROJECT EXPERIENCE /



Technology

- Smart Electric Motorcycle System Prototyping Video
- User Study for professional monitor design Company



Smart Living

- User Study for Smart Gateway and Smart Home
- User manual design for Air conditioner company
- TV UI / UX Design for Industrial Technology Research Institute
- User Study for Smart Television Company in China



Service

- Service Design for a famous real estate company in Taiwan
- Service Design for Tourism Factory in Yilan county



Workshop

- Design Thinking Workshop for Technology company
- Prototyping Video Workshop for Technology company
- EVI workshop for Institute for Information Industry
- Behavior Design workshop for Executives

ON

Creative Thinking

Prototyping

Team Work Ability

Leadership Ability

Marketing Strategy

Research and Analysis

RELATED SKILL /



Research

- Scenarios
- Persona
- Storyboard
- Customer Journey
- KANO Model
- Field Research
- Participatory Design
- Affinity Diagramming
- Eye Tracker
- Prototyping
- User testing
- Business Modeling



Design

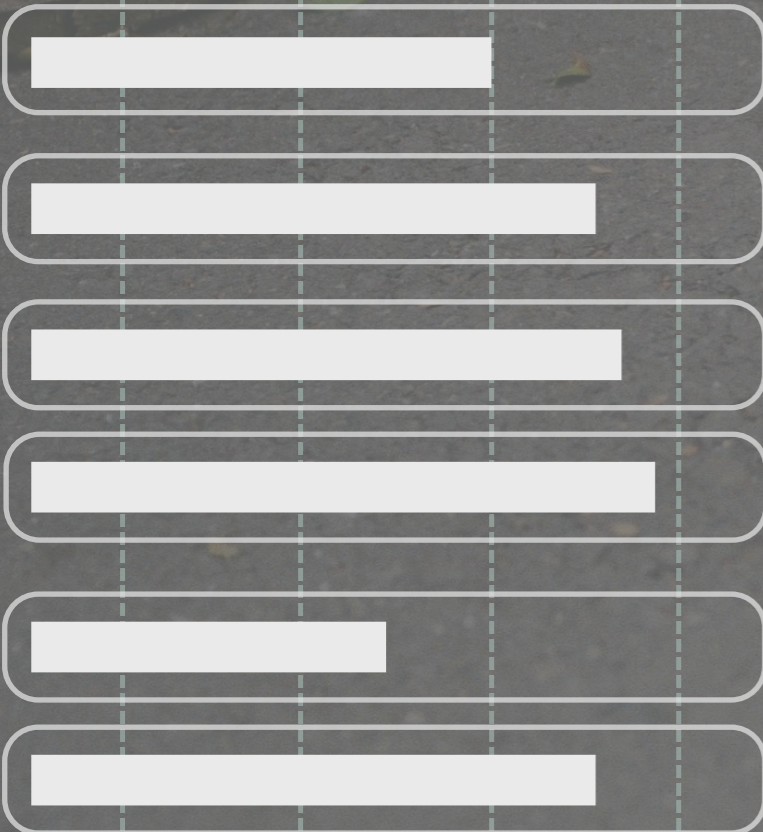
- Illustrator
- Premiere
- Photoshop
- After Effect
- HTML / CSS
- E-prime
- SPSS
- Sketch
- InDesign
- Sony Vegas



Language

- Mandarin Chinese (Native)
- English (Fluent)
- France (Basic)

Beginner Familiar Proficient Expert



CONTENT



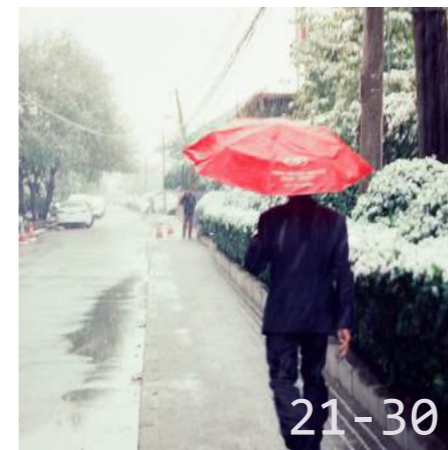
1-10

Smart TV
User Research



11-20

Smart Scooter System
Participatory Design



21-30

Observation
Photo Album

01 - **Category** / User Experience Design, Brand Research
- **Client** / The top three appliance company (China)
- **Duration** / Aug. 2015 - Dec. 2015

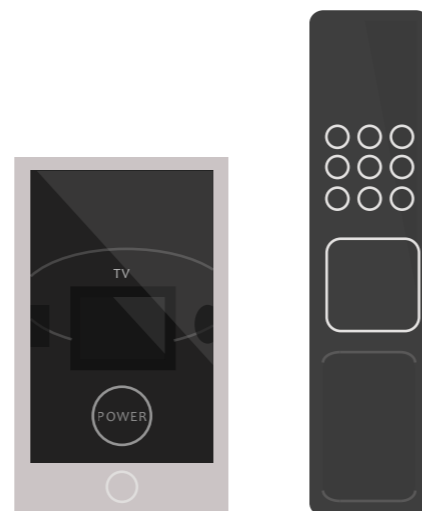
Smart TV System User Study

The Problem

In this study, the client, who place a high value on User Experience, is the top-three appliance company in China. Today China appliance industry is faced with the period of transition because of the rise of IoT, our client would like to develop smart TV and so they built a subsidiary brand so as to attract younger customers. Therefore, They invited us to do research as a consultant. In addition to germane user information, we eager to identify the product positioning of the new smart TV beyond the existing brand.

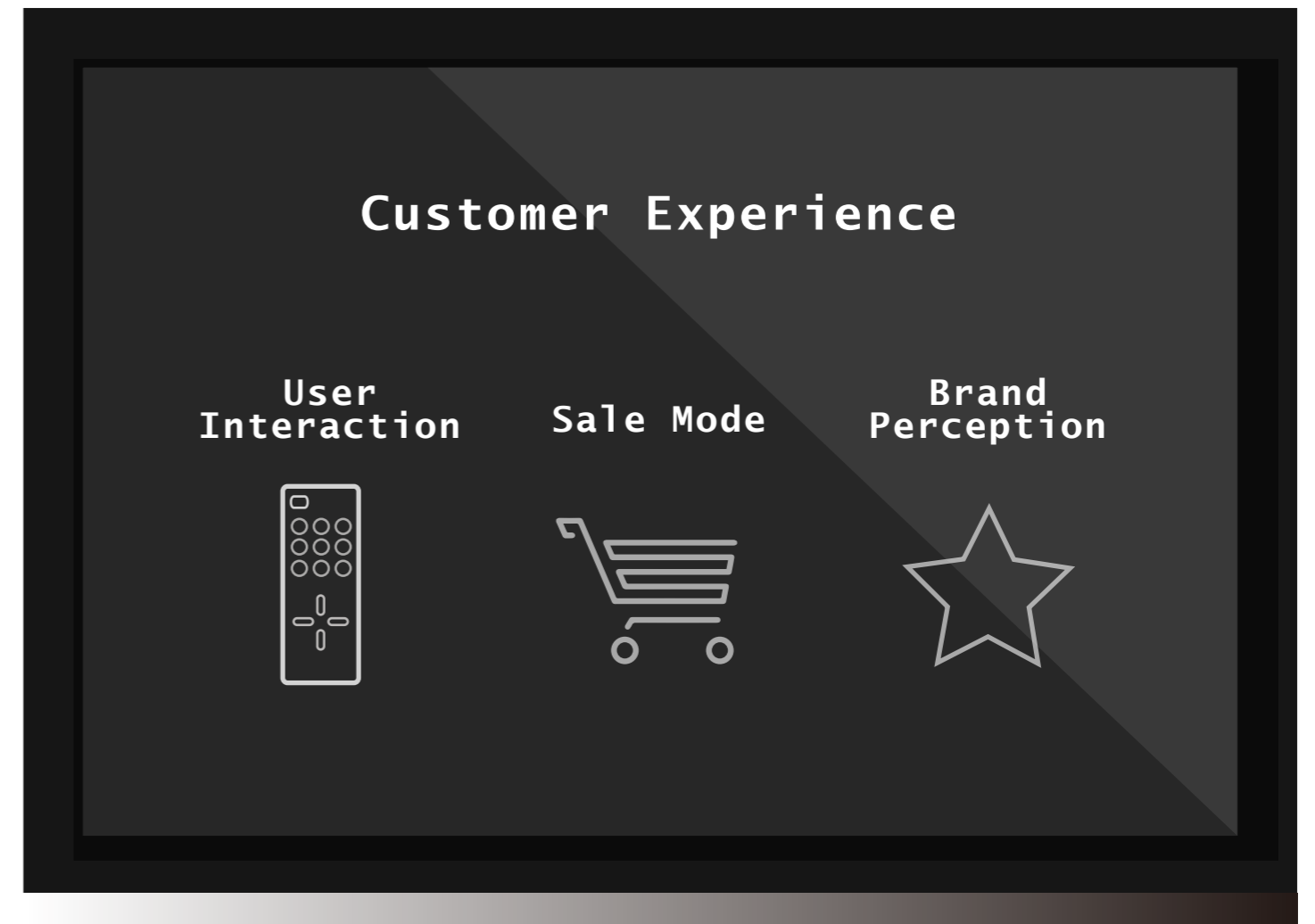
Solution

Our team took flight to Beijing from Taiwan for five days to understand practical user experience of the Smart TV System in China's market. Our recruitment not only centred on end users who are using smart TV, but potential customers and top sales in the hypermarket. We hope to obtain experience of user interaction, sale model and brand perception, turning it into useful insights. And then, we worked with our clients in ideation workshop to radically reshape the ideas.



My Role

I am a trained user experience Researcher, who can plan complete and solid User-Centred Design process in prestigious experience design consultancy in Taiwan. Also, Psychology background makes me look at things from different angles. In this project, as project manager, I created the project program and my duty is mainly about Screening Questionnaire, Contextual Interview and User Insight Analysis.



RESEARCH PROCESS



METHODOLOGY



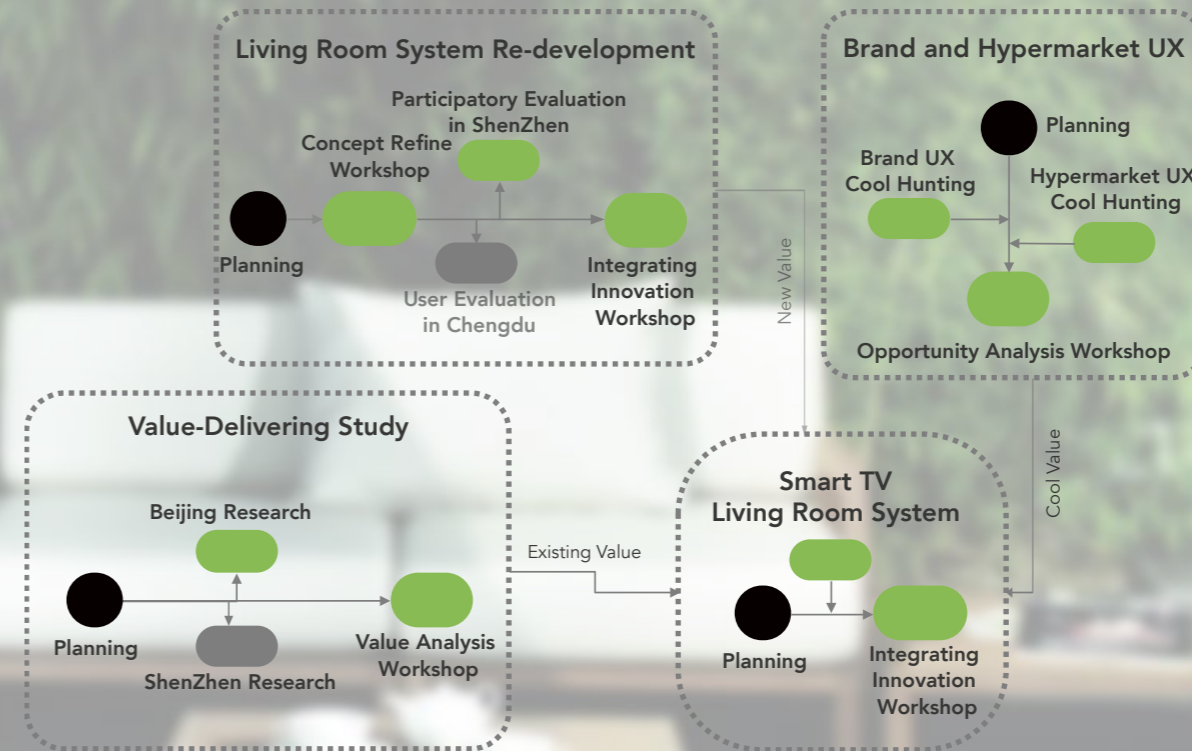
Contextual Interview and Affinity Diagramming

To see what the user is doing or thinking, contextual interview is the best way to know the user's real demands. By combining observations with interviewing, contextual interview can help research team get further understanding about user's cognitions, pain points and future expectations in their own environment. We invited our clients to join us in our research process. After interviewing, we embarked on Affinity Diagramming to figure out the existing design problems in smart TV and improve it.



KANO Analysis and Metaphor Elicitation Technique

Catching the impression in the consumers' mind of brand's total personality is our project goal. KANO Analysis mainly aims to identify the touch points between customer and product / service, and then we could explore the key factors of different product features to customer satisfaction. Next, with image as material, we use Metaphor Elicitation Technique to extract the constructs of interviewees.

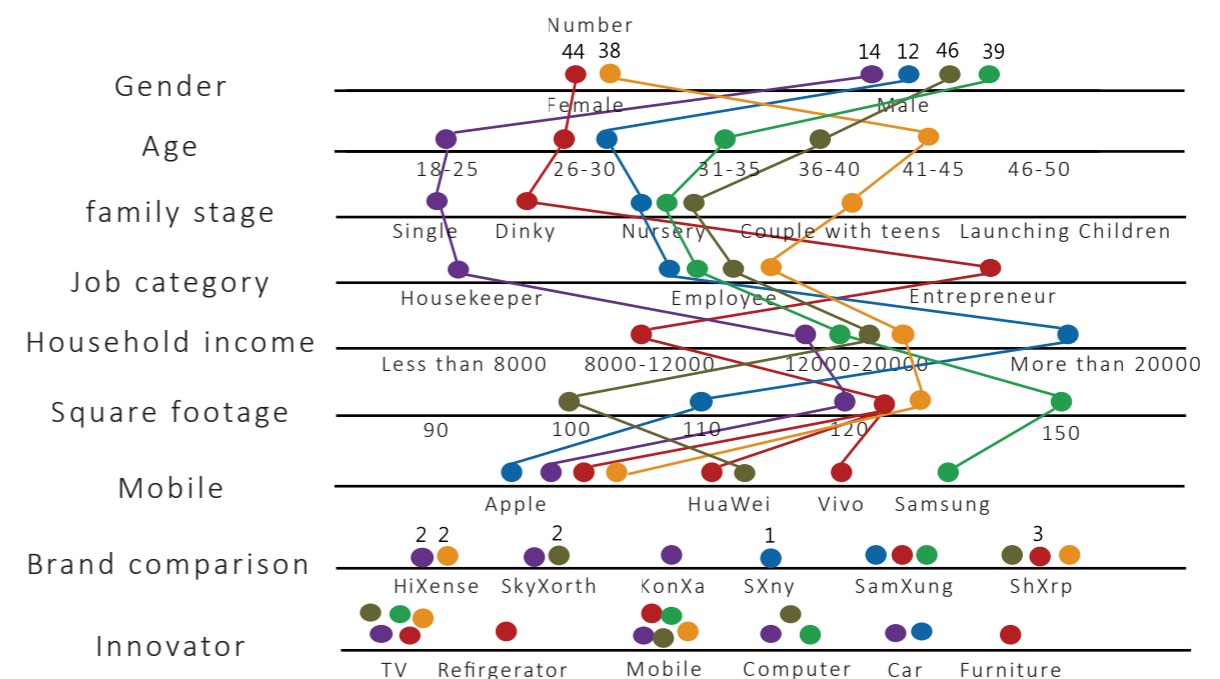


Project Planning and Benchmark

In the past few years, our client has launched a series of smart TV product and service in China, they want to get more China market response and create amazing idea for the new generation product. To assist them achieve goals, we prepared a series of project schedules that punctuates each phase of the project to assign tasks to team members.

Smart TV should be viewed as part of the living room system in daily life, so we want to catch the core value on: What do people do, what do they value, and what do they want when they are using the product. By sending out a questionnaire to existing users and sales to conduct contextual interviews. In the process of recruitment, we also found out their working life and personal preferences. Based on it, we did Benchmark Study and made a User Map to help us to realize user cognition that may influence behaviour behind their activities.

User Map



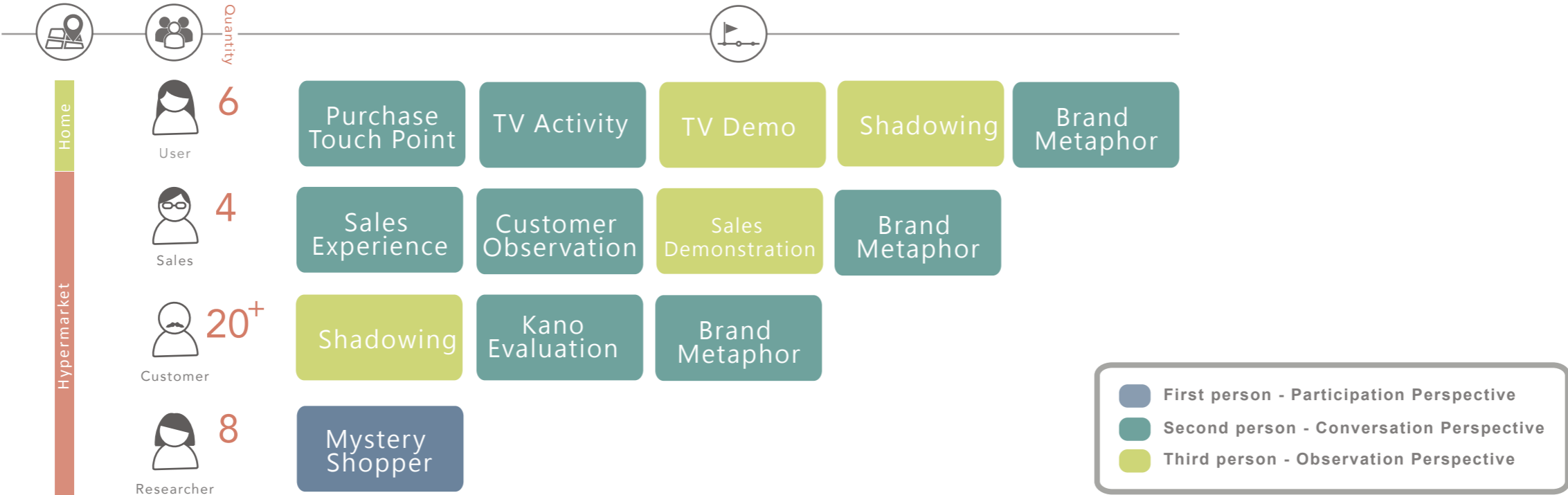
Beijing Field Research

We gained some findings on a five-day visit in China. The study is separated into three target groups: top sales, potential customers and end users. Selected sales and end users have one-hour interview individually, and potential customers would be chosen to receive a fifteen minutes street interview from the store.

The chart below is the processes for different kind of respondents: Researcher and designer would be a Mystery Shopper to understand rival's sale strategy, this participatory approach just like First-person narrative, discovering the advantages and disadvantages of different brands. In the contextual interviews of users and sales, combining observations with interviewing, so we can switch between observation and dialogue. From a different perspective could find out valuable thinking about the smat TV usage.



Field Research



Contextual Interview Analysis

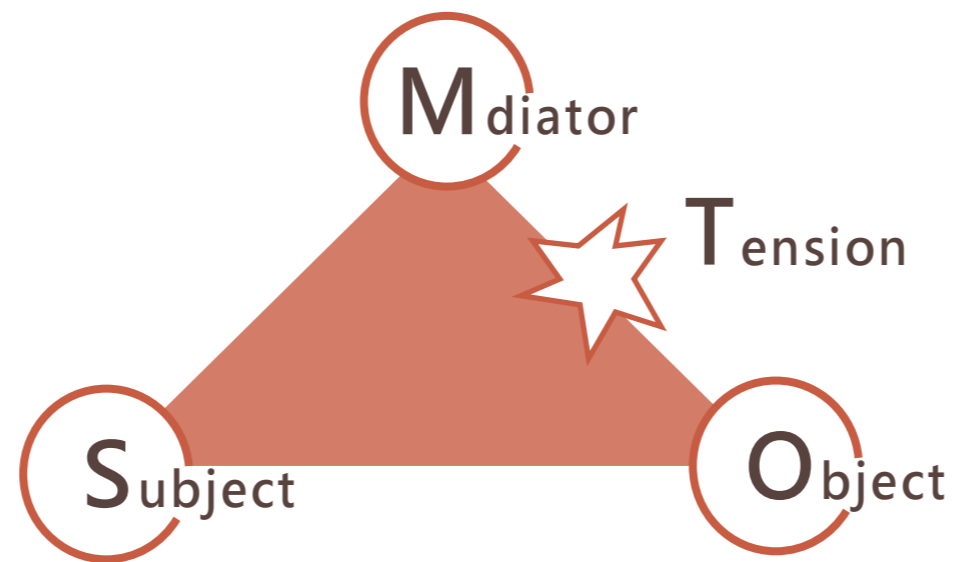
After the interviews, our team used Affinity Diagramming to integrate insights, and we got new train of thought about past purchasing behaviour, current usage and future expectation. Each key activities are recorded by the method called "Activity Theory", which could find main influences to the activity through socio-cultural perspective. Also, we found Tension in it, understanding the key points in the interaction between user and smart TV. It is great for us to provide new ideas and improved design for both.

Insight Finding

There are requests for features that already exist in smart TV. For example, the remote control already has a voice-recognition function in present product, which our client had launched, and it is highly praised and appreciated by people who binge-watch. Many end users use this function to replace traditional buttons. Based on these findings, R & D teams could continue to develop this function for a specific segment of the population, creating niche market.



Activity Theory Analysis

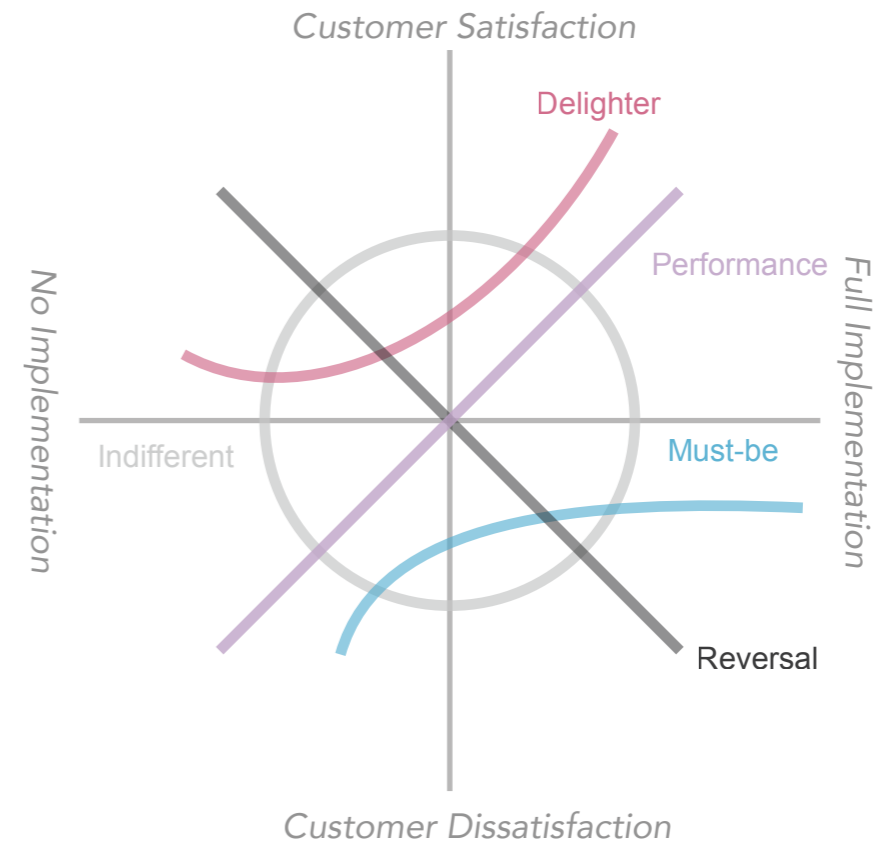


Street Interview Analysis

KANO Model is a research method, which converting product quality and customer satisfaction extent into tangible and providing Quantitative index. We interviewed the consumers who were in the hypermarket, and we would ask them five questions about our customer's smart TV function. After 15 minute street interview, we gathered valuable research data fluently, Analyzing different functions in the individual value of the minds of customers, and therefore, these data will convert into better user experience design in the products. The purpose of interviewing was understanding the feeling and the value of different function in consumers' cognition.

Insight Finding

A total of 32 responses had received from the study. Compared with the hardware or build-in content, we discovered that Price is "Performance Attribute" for China customer, it means that people's preferences are proportional to price positioning of smart TV. This is the basic element. With the finding, the client design team can set the design goal for next generation smart TV: How to use design to make our customer feel well worth its value. Also, we found that "Multi-Screen" function is "Delighter Attribute". For people live in China, It is amazing the content of television can be transferred to mobile.



	POSITIVE FORM	NEGATIVE FORM
User	If your TV can _____ (function), how do you feel?	If your TV can't _____ (function), how do you feel?
Sales	1. I like is that way; 2. It must be that way; 3. I am neutral; 4. I can live with it that way; 5. I dislike it that way.	1. I like is that way; 2. It must be that way; 3. I am neutral; 4. I can live with it that way; 5. I dislike it that way.
Customer		

KANO Model Analysis

The analysis shows four KANO plots for different customer segments:

- User (Top Left):**
 - 有感品質: 0 2 0 (魅力品質, 一元品質, 必要品質)
 - 無感品質: 1 0 (無差別品質, 反向品質)
 - Insight: 現在每家視聽資源都差不多。(男/35/職員)
- Sales (Top Right):**
 - 有感品質: 0 3 0 (魅力品質, 一元品質, 必要品質)
 - 無感品質: 0 0 (無差別品質, 反向品質)
 - Insight: 贈品很有誠心, 能馬上出貨應命。(夫妻/40/房務管理)
- Customer (Bottom Left):**
 - 有感品質: 1 0 0 (魅力品質, 一元品質, 必要品質)
 - 無感品質: 0 0 0 (無差別品質, 反向品質)
 - Insight: 想要能升級? 對硬體規格沒概念。(夫妻/27/教師)
- Customer (Bottom Right):**
 - 有感品質: 1 1 0 (魅力品質, 一元品質, 必要品質)
 - 無感品質: 1 0 (無差別品質, 反向品質)
 - Insight: 新電視要出息吸引我(夫妻/64.65/退休), 不會太悶(女/45/教師)



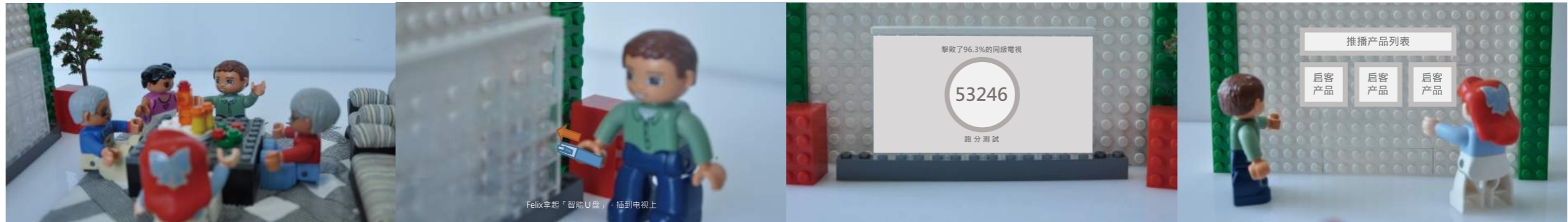
Ideation Workshop

In the Ideation workshop following the insights, which the previous research results converted into. Through this workshop, we created more communication opportunities between researchers, designers and participators. In order to truly comprehend where the customer's evaluation key points are, expand our thinking and define any possible design direction.

Scenario Design is the main method; we visualized the results of customer and end user field research by Persona cards and Insight cards. The client involved the design process, developed the ideas and share their experiences. All the things they had done was for building up the possible appearance of future smart TV. Finally, members in workshop would ideate future smart TV concepts via storytelling. These ideas could help customers being closer to User Center Design when developing next generation smart TV.

Persona Card

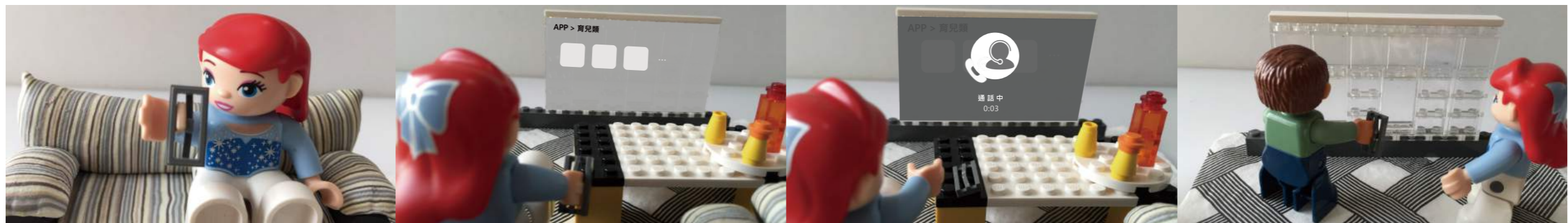




#1



#2

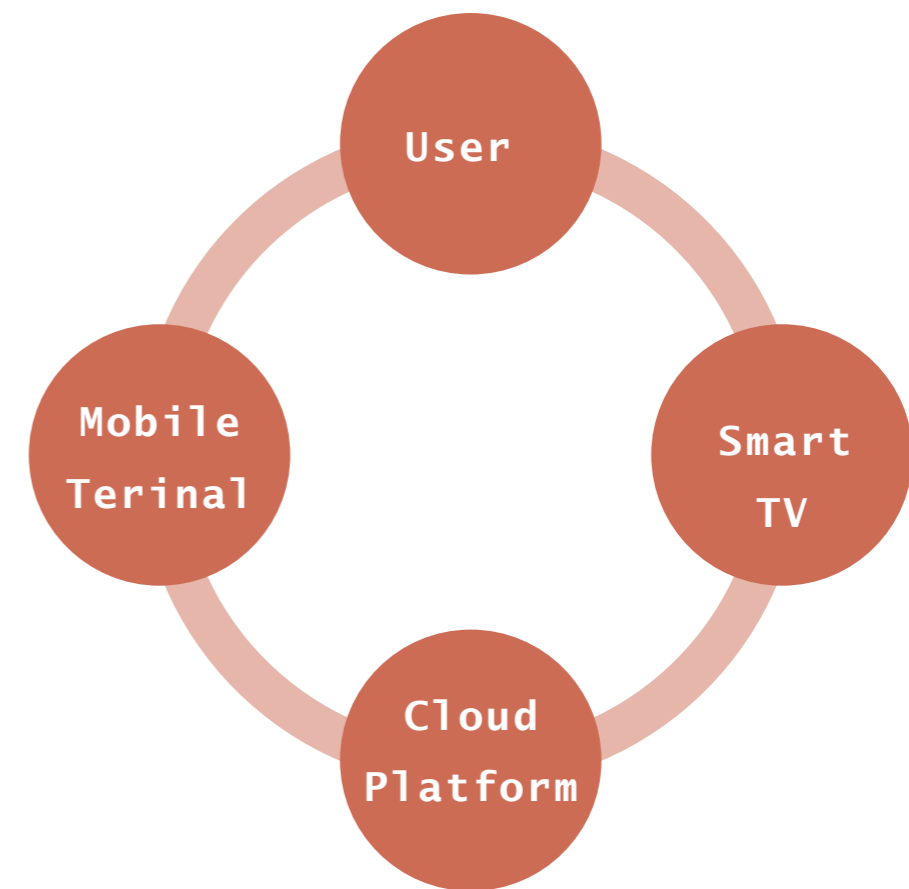
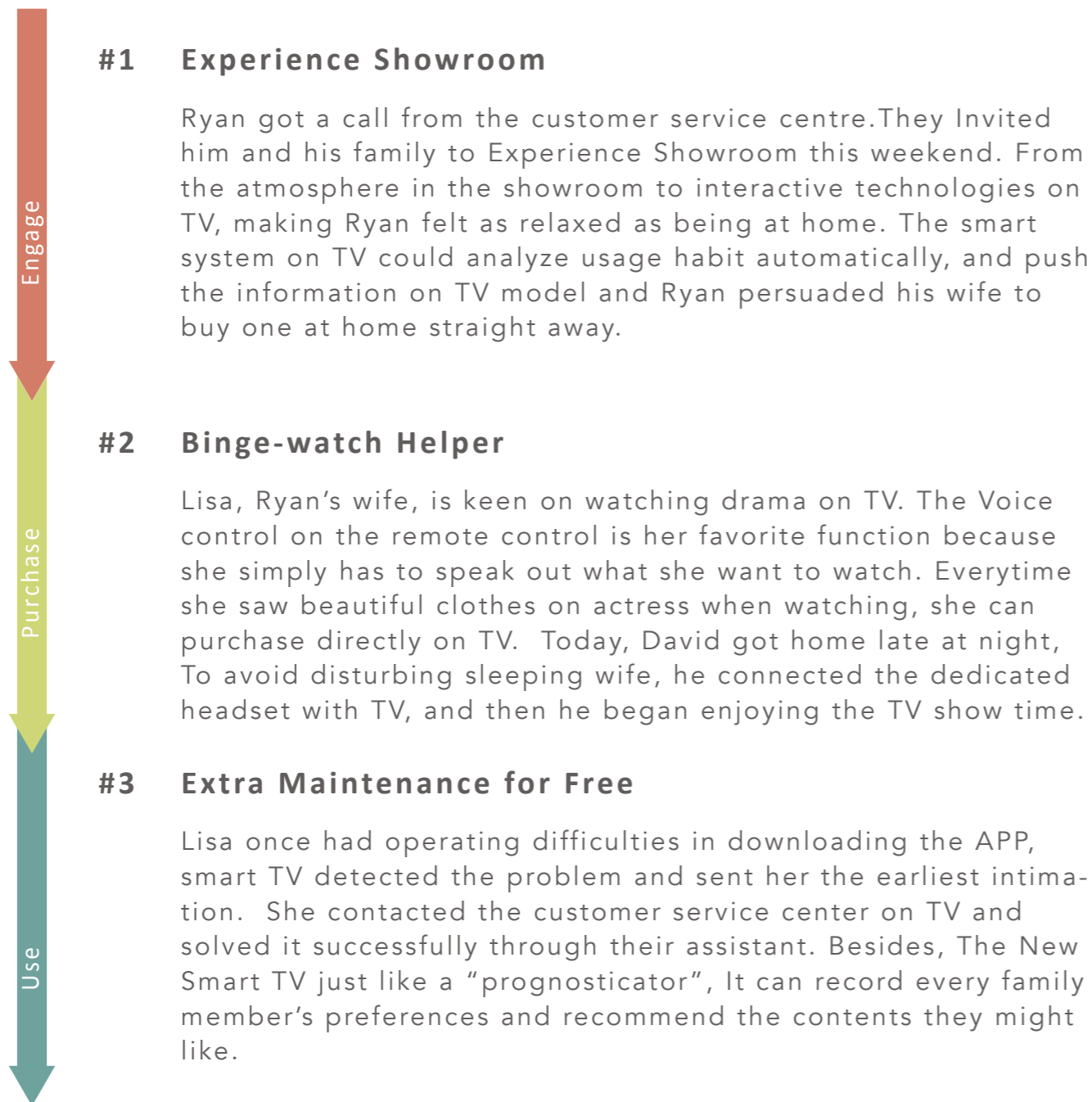


#3

Future Smart TV System

Scenario

From contextual interview to ideation workshop, we outline a new smart TV feature stage by stage. I made a Lego video which point out the key features to describe the real situation of New smart TV usage. Based on the concept of User journey map, the Lego prototyping video is divided into three sections:



02 - **Category** / Participatory Design, Prototyping Design
- **Client** / Industrial Technology Research Institute (Taiwan)
- **Duration** / Nov. 2014 - Dec. 2014

Smart Scooter System Participatory Design

The Problem

Design is the key to innovation. However, if we create a product or service that do not serve the aims of users, it may have excessive re-design costs for manufacturing, ever the whole society. Rapid Prototyping Design combines the advantages of low cost and fast modification to verify user real expectations to product and service. For the reason, the odds of Rapid Prototyping become clear. In 2014, our client had developed smart electric scooter service system, and required us to testing for the usage contexts in one month. The project goal is design participatory design process which delivers a maximum of feedback on design ideas at a minimal cost and produce an insight visualization.

Solution

Concentrating more on the conceptual design stage helps client R & D team to look into creating meaningful product and service. We had to convince our client to cooperate with us in the process. Initially, they wished to create a live-action film, but we built up several scenes required by Lego, persuading them of having a hands-on brainstorming experience, and then they can realize the power of Lo-Fi prototyping video which can reduce costs and catch the true user experience. More, R & D team is able to think more about explicit usage and future development in real-world.

My Role

I am a UX researcher also a prototyping designer who has the skill of Film Editing. Therefore, not like general researcher, I transform study insights to several applied scenarios, and these images help clients and target user to become involved. In this project. I communicated with clients with images, which make the communication process more fluid. I also planned workshops and produced final prototyping video. It is glad to assist clients in comprehending the design that the users demand.



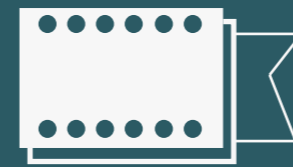
RESEARCH PROCESS



Kick-off Meeting



Participatory Workshop



Script Testing



3D Animation



METHODOLOGY



Participatory Design and Workshop

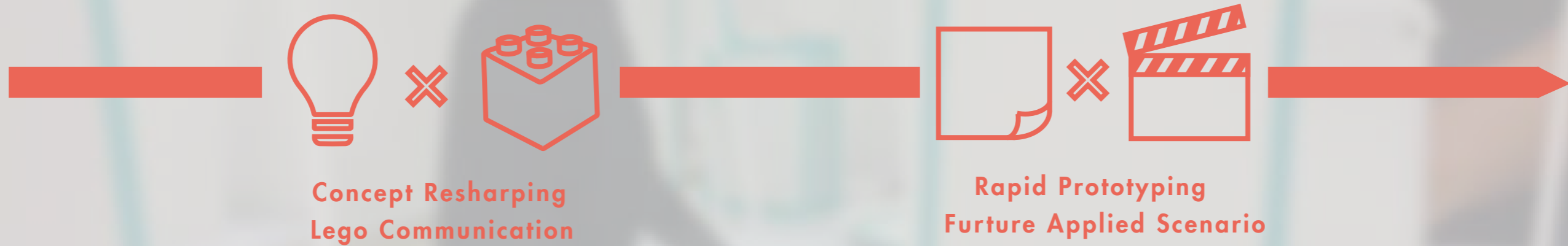
In order to incorporate user experience into the smart electric motorcycle developing process, we proceeded Participatory Design session by the form of workshop. Because of the different life experiences between different roles, we invited designer, researcher and client into the workshop for the purpose of finding balance between the demands of users and technical capability. Furthermore, we also anticipated some possible activities and pain points in the future.



Scenario Design

Telling and listening stories are our nature. Through describing future lifestyle, Scenario Design can help research team understand the user story in the reality and further provide clear and specific imagination for research purposes. Meanwhile the design process, which is user-oriented, can play the role of guide and communication.

Value in Process



Kick-off Meeting and Project Planning

In concept coordination stage, we hold a kick-off meeting for communicating with engineers in order to be ready to carry out the planning. Our client showed the latest techniques of smart scooter system. The meeting also was a warming up for participative design. Except for conforming current technology condition, we reached the "Safety is first" consensus at this meeting as well: All functions of smart electric scooter service system are safety-oriented. We thought over the advantages of motorcycle, like high flexibility and low oil cost, that is why the density of scooter in Taiwan was ranked the first place out of the world. However, the safety risk is also higher than cars. According to the statistics calculation, there are three to five students dead in car accidents every week. About the consideration of pedestrians' and divers' personal safety, we want to develop a high safety motorcycle and IOT safe transport network.

After Kick-off meeting, we decided to use visual storytelling in participatory processes, stimulating more innovative ideas for the product system, and closer to UCD with Lego and finally come up with future applied scenario.



Original draft Storyboard

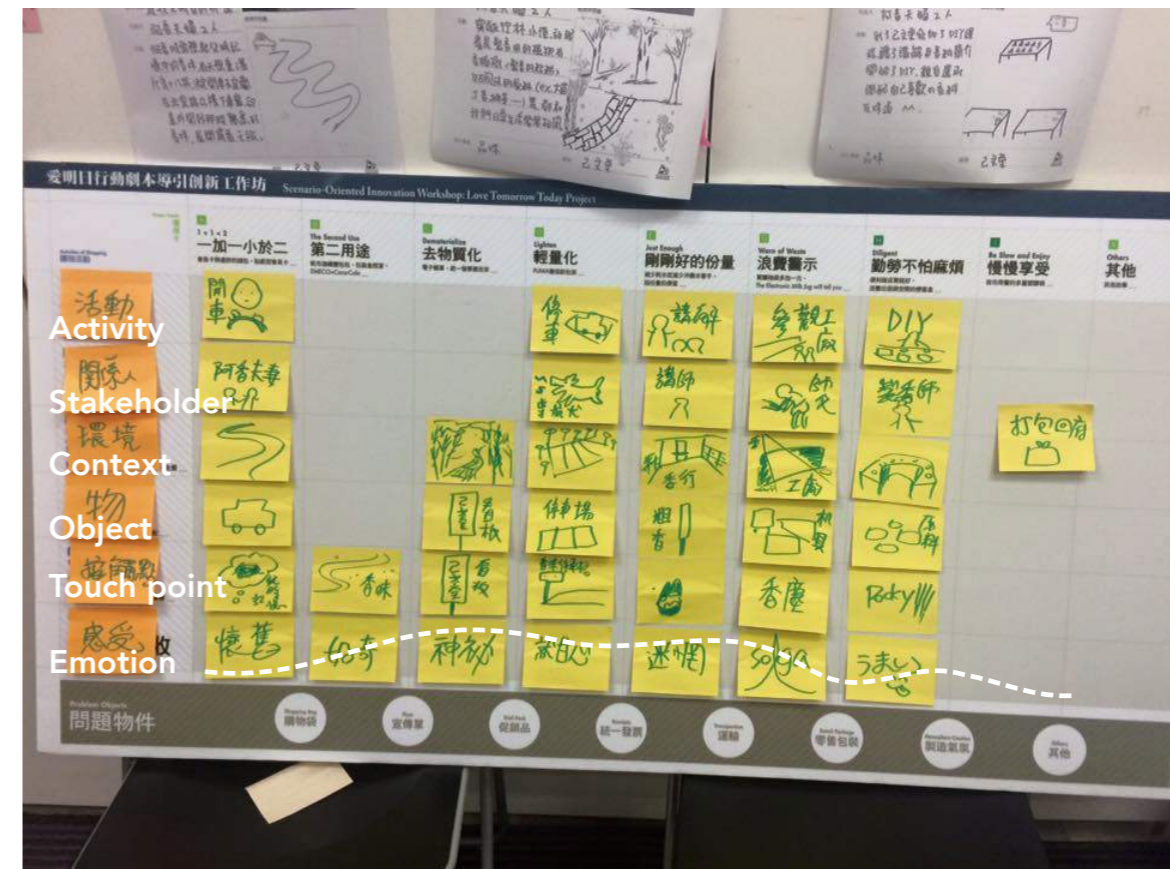
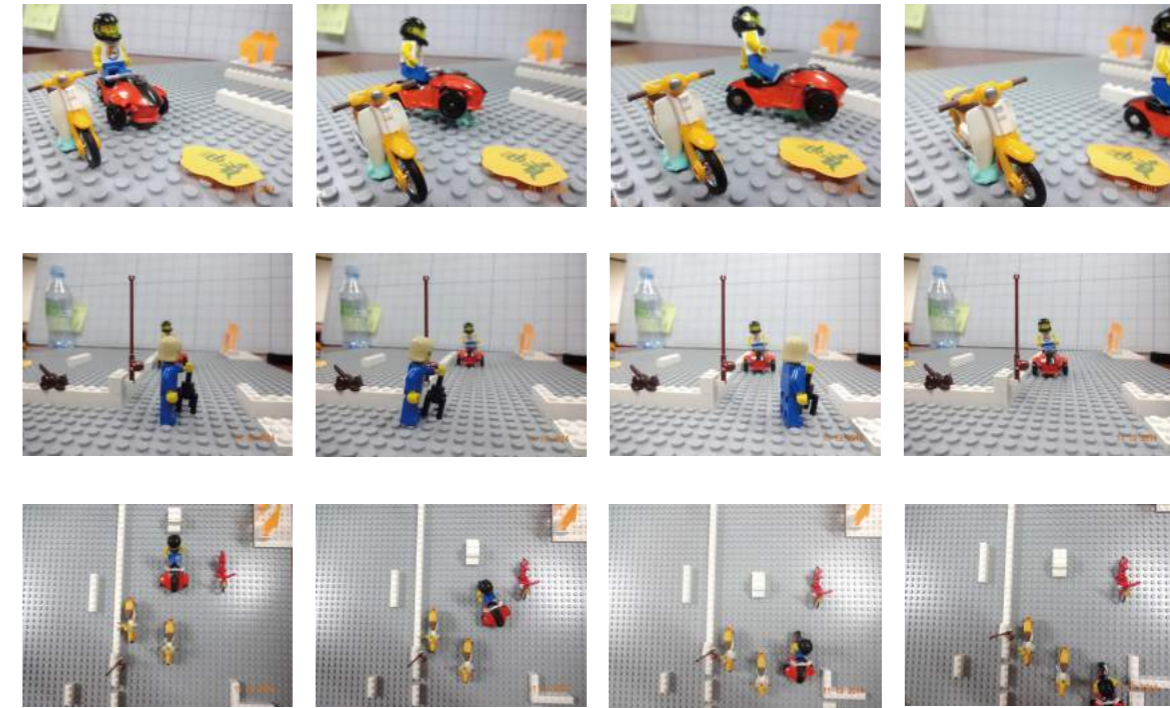


Concept Reshaping
Lego Communication

Participatory Workshop

In the participatory workshop, service system developers and five scooter riders discussed together; Lego is the main tool for communication and our goal is producing Lo-Fi prototype script in one-day workshop. I applied Customer Journey map on the participatory process of workshop; Customer Journey has many elements and it could be mapped with Script Design. The participators would image that they were leading role in the story, owned a smart scooter. Through the role-playing, they can outline touch points (the function service provided), activities (circumstances they experienced) and emotion (feelings in different stage) in the journey. We recorded every key scene by camera and these photos like key dots, which be connected shot by shot, become a storyline. During this process, design concept would be reshaped and storyline be optimized by utilizing customer journey map.

Moreover, with notes about what's going on in the scene and what's being said in the script. we can catch pain points as well; these contents are precious for improving our design. Consequently, Lego help research group simulate the benefits of function and other possible application scenarios.



Workshop Outcome- Narrative Scenario



POST IT



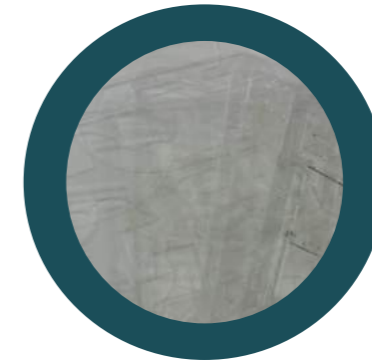
LEGO



PAPER MODEL



STORY BOARD



STENCIL RULER

Design Material for Prototyping

I designed a series communication materials that being useful in the workshop. The key features are written on Post-it and Lego and paper model are in helping members describe other potential application scenarios. I took pictures from different angles to make Paper model, and they can use the tools on the table to help them exchange and simulate the particular interaction.

Furthermore, we used different camera movement images to express different levels of human interaction with the smart electric motorcycle. The more zoom out, the more we see what happen to the surroundings; The more zoom in, more interface operation is regarded. In order to integrate functional concepts into the plot, people can think about the usage process and details again.

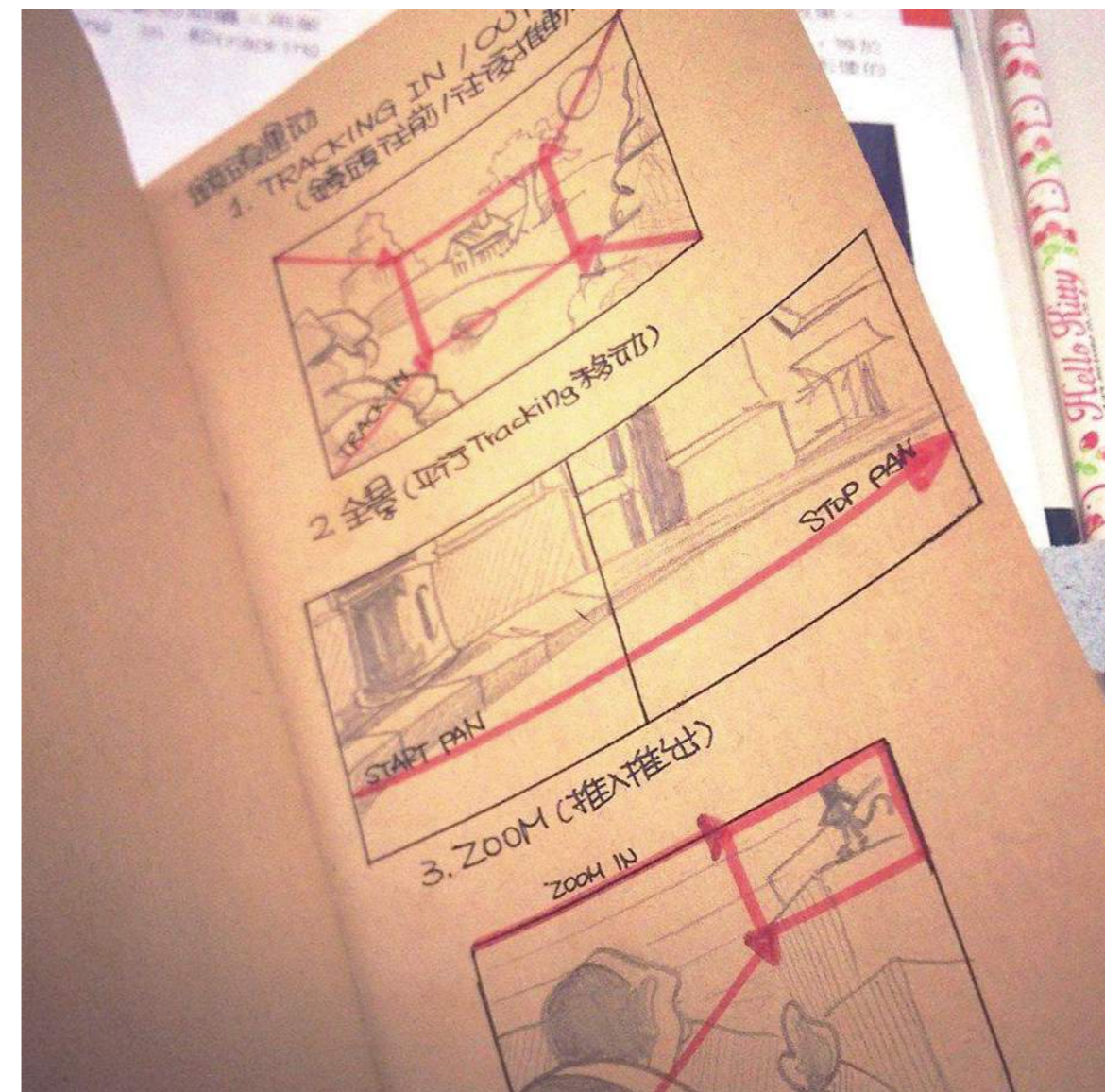




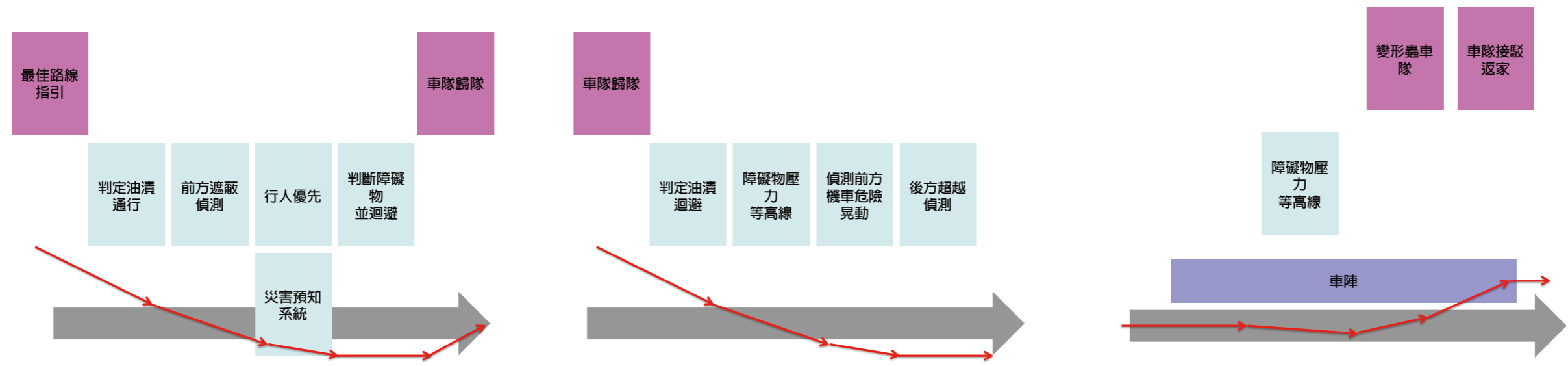
Rapid Prototyping
Future Applied Scenario

Script Testing

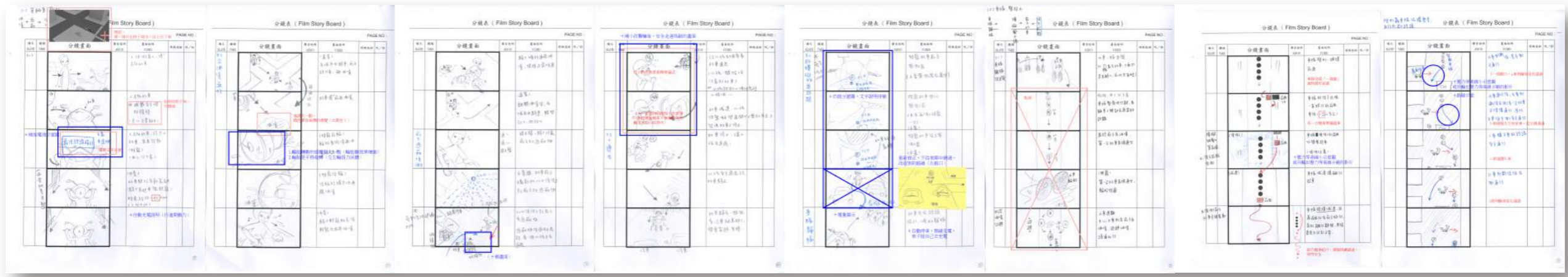
After the participatory workshop, we received the prototype picture, which highlights the useful functions and the contextual interview of scooter riders were followed. We printed out the key picture we shoot for video card game, which mix with Task Analysis, interview participator image themselves being the leading role, and then sort each plot according to different mission. In the terminal, they shared their feeling and story in the course of the game. There are two purposes of this testing: First, we can convert the prototype picture into the 2D script in scenarios. Second, we can understand the different extent of demand in functions from the users' perspective.



Testing Outcome- Story Line



Plot development - Function Description

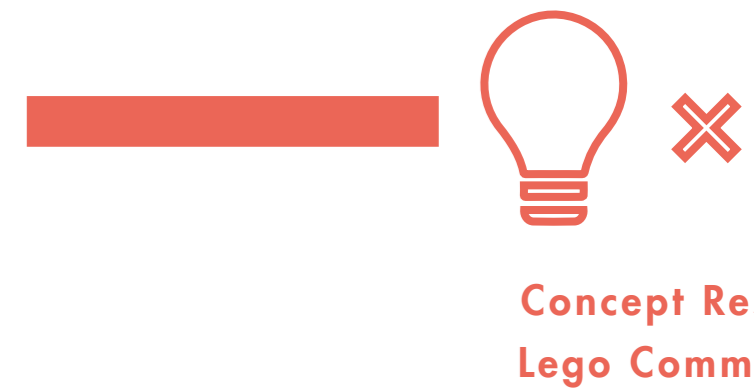


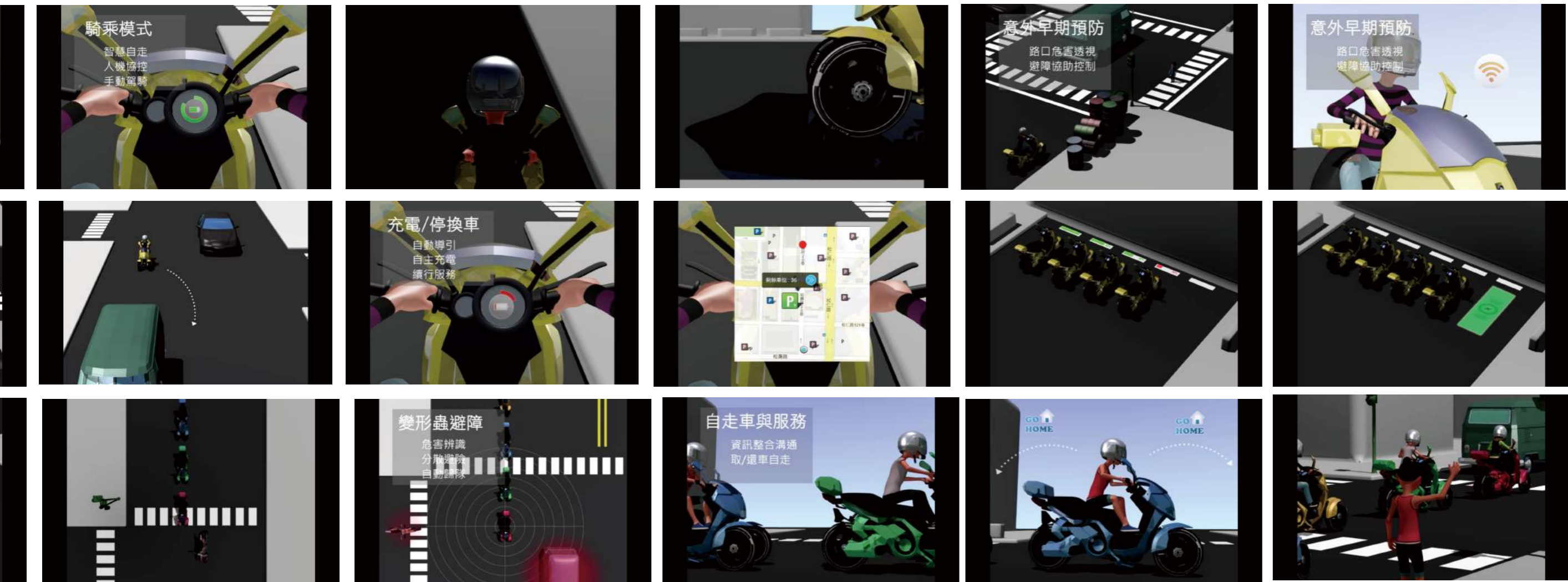
Final Storyboard

Final Outcome-3D Animation

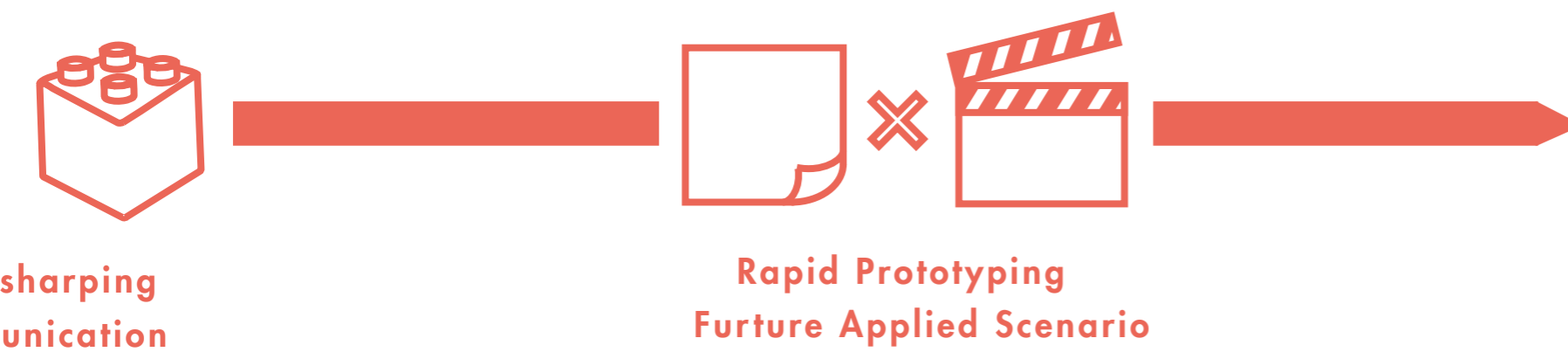
From participatory design workshop to script testing, I carry the ball to lead our client, Industrial Technology Research Institute, to conduct user studies. I am devoted to co-creating innovation ideas with stakeholder. After checking the script, we implemented 3D modeling software on the final video. Right graphics are some fragments of the video. The video illustrates each function of auto-ride scooter service, for instance: Automatic Hazard Determination, Charging Schedule for Parking Lot, Safety Motorcade Self-composing, and so forth All functions of smart scooter need the whole service system to supple.

I edited video into some sections according to function. R & D team can utilize these videos for appraising and therefore the video help this project has a head start in design preparation.





Smart Scooter System Participatory Design







Observation Photo Album

Passion on Photography



Daily Observation



Daily Observation

"To me, photography is an art of observation. It is about finding something interesting in an ordinary place." said Elliott Erwitt, one of my favorite photographers. I also capture the memorable moments in my daily life, such as a barber did his work with extraordinary dexterity in local market, people drive a hard bargain in fish market and handicraft makers concentrate on the work.



Record Atmosphere



Record Atmosphere

Reading the atmosphere is very important for researcher like me, and camera just like part of my body. When travel abroad, I always wondering how do people live with other in different areas. Therefore, I would observe without disturbing their activity, and faithfully record the moment. The human perceptiob senses of social interaction is shaped without my being aware of it.



Real Life Interaction



Real Life Interaction

I enjoy talking to random strangers on the streets and exchange life stories, I often can find some interesting contexts in our conversation, such as a general old man who walking the dog, was a famous artisan. Instead of asking people smiling in front of my camera, I like to capture the right moment that is natural.



