

Observation Analysis Method for Culture Centered Design – Proposal of KH Method –

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Abstract. Product development has advanced for developing countries with their economic growths. It must have a priority to learn their culture when developing a product for people having different background. This study focuses on observational method, which is important for designing an overseas product, and provides author's original method from observation to output named KH method. KH method aims at making basement of ideation figured out deeply their experience through culture centered thinking in the phase of Observation, Analysis and Ideation.

Keywords: Culture Centered Design, Observational method, Storyboarding.

1 Introduction

Developing country's economic growth has been booming therefore we need to develop a product and service for countries that have completely different cultures and religions such as Indonesia, India, Africa and Brazil from countries, which we used to target to in the future. Most of companies in Japan try to apply the same business model, which was used when Japan was still developing, however, it's essential to make a product based on understanding their background for penetrate into developing countries.

2 Purpose

The purpose of this study is suggesting the ethnography method for developers to design a product and service based on taking into account of cultural trait to users that have different background.

3 Approach of Culture Centered Design

To step into a local community overseas and study its life, observe experientially, find some questions and create hypothesis are required. Based on this process, we stayed and observed Japanese and Brazilian community in Japan. Moreover, we focused on the phase of analysis and ideation after observation to figure out how cultural trait can influence designing.

4 Suggesting a Design Method

This chapter describes the original design method we suggest named KH method.

KH method is named after the author's first name, Kaho.

4.1 Features of KH Method

It's divided into Observation and Analysis phases as features of this method.

At the phase of Observation, there is a place where it's easy to step into the community when you go on a field trip. To give some examples, Japanese people get along more easily at Japanese style bar, Izakaya where we can get a drink than only sitting and interview. As for Brazilian people in Japan, there is a Brazilian market of Mercado in the city where they live mostly. This market has a small food court outside and they gather together to chat and eat Churrasco, which is Brazilian cuisine every weekend there, which means that it can be a good opportunity to get closer with them.

Besides, we take tons of photos of everything that we see. The quantity of photos is important, therefore the skill of photography isn't required. Compared with video shooting, when you want to see a part of scenes, it takes time to fast-wind and forward, in contrast, photos are accessible to overlook the whole object of observation with project members together.

At the phase of Analysis, the photos from fieldwork are organized in chronological order with using Storyboarding method to get their culture and life contextually. The findings from the analysis need to be investigated with Video Ethnography, Shadowing and some observational method.

As described above, KH method is that step into the specific community based on culture for observation and figure out cultural trait contextually with using Storyboarding method for analysis. Moreover, these findings can be the foundation of idea.

4.2 Comparison with other Observational Method

This is the table shows the difference between KH method and other observational method such as Shadowing, Found-Behavior and Rapid Ethnography.

The utility of KH method were as follows:

1. Only taking tons of photos in the process is required which means that you don't need a skill and preparation so much.
2. As F. Kato points out, you can go on a field trip lightly without big preparation by functions of smartphone which people daily use such as camera, memo and map.
3. Unless there are many observers, Story shows contextually the whole image of observation, therefore project members who didn't do fieldwork also can get a findings and share the result well.

Method	Shadowing	Found-Behavior	Rapid Ethnography	KH method
Summary	Spending time with an examinee and observe at the same time like a shadow.	Record examinee's whole activity with video and interview him with showing it after observation.	Examine rapidly hypothesis in planning stage. It's required to collect and analysis data repeatedly after do ethnography promptly.	Based on cultural trait, observe with taking tons of photos and share them with Storyboarding contextually.
Advantage	You can see contextually how to use the targeted object with examinee's activity.	Precise memory can be drawn out by showing video of the observation in an interview	Having chances to get a finding in observation sharing and analysis phase.	It's easy to step into the community and possible to understand people empirically.
Weakness	It has difficulty for examinee to act naturally because of being observed.	The presence of observer can be noise and intervening is difficult.	Sharing information is difficult because of the limit of number of observers and it makes data bias.	Learning a rule how to take a photo of the target and how to share is required.
Form	Face-to-face	Face-to-face	Face-to-face (Sometimes Indirect.)	Face-to-face (Sometimes Indirect.)
Number of Observer	Multiple	Multiple	A couple of people	Multiple
Required Time	Not too long	Not too long	Not too long	Not too long
Place	Local area	Local area	Local area	Local area
Facility	Normal	Difficult	Normal	Normal
Examinee's Load	Hard	Hard	Low	Low
Observer's Interposition	Difficult	Difficult	Normal	Easy
Tools for Documentation	Video	Video	Video / Camera	Smartphone camera

Fig. 1. Comparison KH method with other observational ones

Difficulty of Sharing data	Normal	Normal	Difficult	Easy
Culture Considered	Proper	Proper	Proper	Proper

Fig. 1. (continued)

4.3 Practical Example

We practiced 3 observations, "The stay with a Brazilian family in Yamanashi, Japan", "Tohoku kindergarten reconstruction project in Miyagi, Japan" and "Fieldwork at Brazilian town in Gunma, Japan"

Implementation of Observation

According to 3 observation examples, we used the way to take many photos in the process of fieldwork.

In this process, two examples are about Brazilian people and the other is Japanese people and we learnt 4 Hofstede Cultural Dimensions that are Power distance, Individualism, Uncertainty avoidance and Masculinity so that we compared Japanese culture with Brazilian one to figure out cultural trait clearly.

This chapter's results were follows:

1. We found that there is a place where you can see their activity naturally and step into their life rapidly every culture. For examples, as Hofstede stated that Japanese generally never show their expression but talk a lot like release their inner self with drinking at bar. It's like a different person. Thus For Japanese community, you can be the part of member in their community with having alcohol which means that the start of fieldwork depends on culture.
2. In the case of observing with several people, objects that you missed in the field can be captured by someone, moreover we can get tons of photos taken by them which is more helpful to make non-observers understand and share the result clearly. Therefore we describes that having several observers are better to improve quantity and quality of information of observation.

Implementation of Analysis

We held 6 workshops with 13 students to ideate based on observation after "Tohoku kindergarten reconstruction project in Miyagi, Japan". Storyboarding and Card sorting method were used to learn how photos taken by observers could be shared effectively in this practice. Workshops we held are one of them are with using Storyboarding, another one is with Card sorting and the other is with both methods from sharing and ideation.

Workshop with Storyboarding

It was held with 13 students and a total 3 times at Chiba Institute of Technology and Tama Art University in June 2012. The purpose of this workshop is to analysis the utility of sharing observation objects with Storyboarding. Besides, we used printed A4 sized photos of observation (Fig.2) and participants, post-it with story, map and if you did interview, you need to visualize what people said with storyboard. (Fig.3)

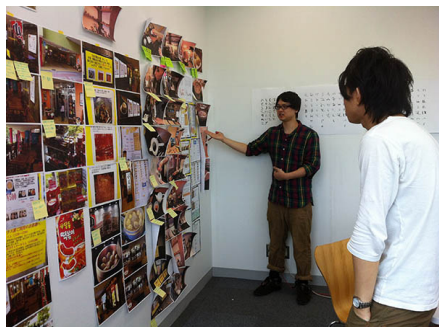


Fig. 2. Sharing with Storyboard

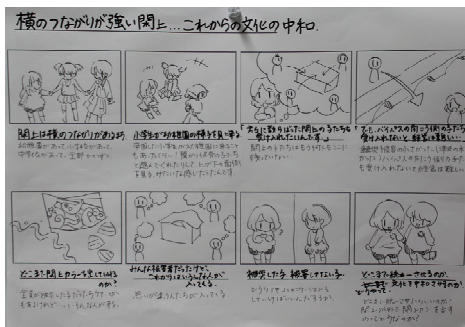


Fig. 3. Storyboard that visualized interview

This chapter's results were follows:

Not only sentence but showing large photos on the wall makes observation result give more impact which is you can have findings more easily and Storyboarding shows generally small sized font on paper and it's hard to recognize the story, however, you can remember the story from the big images.

Furthermore, Non-observers can easily understand and review observation result by story-lined.

We still need to figure out to make preparation easier and make a rule what point you need to take a photo.

Workshop with Card Sorting

It was held with 4 students at Tama Art University in June 2012. The purpose of this workshop is to analysis the utility of sharing observation objects with Card sorting. In this workshop, we used business card-sized photos (we called this "photo card") (Fig.4), a large paper for discussion on the table, post-it and map made by photo cards (Fig.5).



Fig. 4. Sharing with many photo cards



Fig. 5. Explain with a map made by photo cards

This chapter's results were follows:

1. Compared with Storyboarding, which you can explain contextually what you did in the field, Card sorting isn't suited for it, nevertheless it was useful to ideate on the

table which means that we supposed that you need to divide using tools between analysis and ideation phase.

2. We learnt that using photo cards, as a map was helpful for understanding the field more.

3. Discussion with a big paper on the table urged you to visualize what you think, thus we can share and understand each other easily.

4. Object you should take a picture of in the field depends on what your design target is.

- If you design a kindergarten, you'd better not to take a photo of existing kindergarten but a photo of environment around it.

- If you design communication design in a kindergarten, photos of place where children actually spend time and play.

Workshop with Both Methods



Fig. 6. Environment to share data



Fig. 7. Ideation with tools (photo cards, storyboard)

It was held with 13 students at Chiba Institute of Technology and Tama Art University in July 2012. The purpose of this workshop is to analysis the utility of sharing observation objects and ideation with Storyboarding and Card sorting. In this workshop, we used A4 sized photos, photo cards, post-it with story, a large paper and the map.

This chapter's results were follows:

Using both photos with story and map made by photo cards to explain made us more understand the local environment and life. Moreover, it was possible to check the result of observation and make ideas have more reality and attractive when working in the place you can see those 2 tools, however, you need to get to used to how to use those tools.

Conclusions of This Chapter

1. In the phase of analysis, storyboarding with A4 photos and map of photo cards were the most effective to figure out the context of fieldwork.

2. Project members who didn't observe was able to understand more what the field looks like and how people live by sharing the result of fieldwork with having a story.

3. In the phase of ideation, it was effective to use business card sized photos and express member's idea with a big paper on the table for discussion.

5 Proposal

We created new kindergarten in a area of northeastern Japan, Tohoku where Tsunami hit on March 11 based on the process of observation and analysis from one of the practice example, "Tohoku kindergarten reconstruction project"



Fig. 8. Environment design of Wakaba Kodomo En

Title: "Wakaba Kodomo En"

Concept :

Children do gardening to create green in Yuriage area in Tohoku where broken down by disaster and there is only concrete all over the ground with elderly people together who lost everything and are living alone in temporary housing, thence this attitude keeps other disaster victim's spirit up and urge people to restore.

Branding

- Logo (Fig.9)

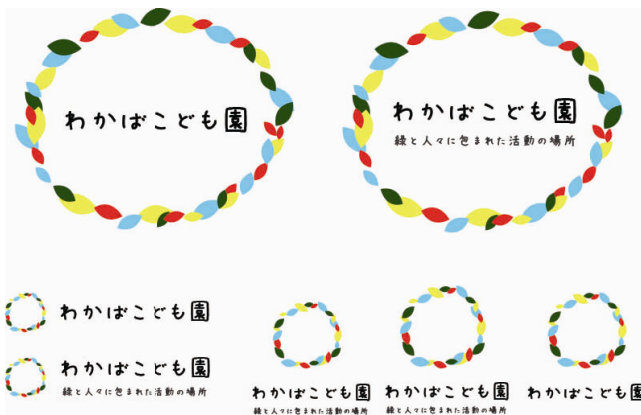


Fig. 9. Logo of Wakaba Kodomo En

We keep the picture of young leaf from previous logo that the principle of this kindergarten made and we combined an image that people hand in hand with each other with it.

- Color

We take care of matching between environment and color, moreover we put some bright color to express power of children.

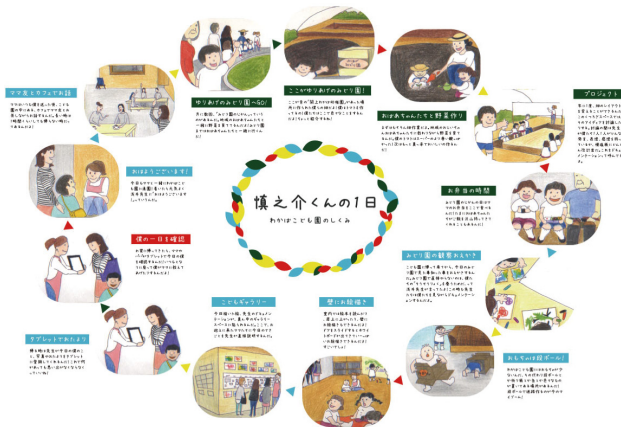


Fig. 10. Customer Journey Map of Wakaba Kodomo En

System (Fig.10)

This kindergarten has 2 facilities, a main hall and a gardening space that build in the affected area.

- A main hall "Wakaba Kodomo En"

This building opens up for children in the daytime and for parents and local people to communicate at night. It aims at getting the disaster victims who separate to gather together also get along with people who absorb the victims.

- A gardening space "Yuriage no Midori En"

Place where people get together and create greens to activate the disaster area.

Activity of "Yuriage no Midori En"

It provides to do gardening with local people, to have a lunch to communicate with them and for children to discuss and to be a shelter for affected animals.

Online Service

This kindergarten put online service such as web site and application of tablet device into practice. It won't be lost by Tsunami and disaster by keeping a record of children's activity and newsletters on online.

Suggesting service were follows:

1. You can check your kid's activity at home
2. Teacher share today's kid aspect with tablet

6 Conclusions

In this paper, KH method was provided by 2 steps, Observation and Analysis with a culture centered view.

Summary of KH method were follows:

1. Starting observation at a place based on cultural trait is helping to step into the community easily.
2. Going on a field trip easily and rapidly can be provided by taking tons of picture of the local information with several observers which is you can get various of views at the place without any photo shoot skill.
3. It's important to start a field trip at a place based on cultural trait for observation and figuring out the result of observation with Storyboarding contextually at the phase of analysis. For this reason, it can be a culture-centered method.

In this study, we found the effectivity of this method as a germinating research.

Moreover, taking account of this utility in a developing country actually is the subject of further study.

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