A Study of designing method for the easy map to understand

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Abstract: There are some problems on the map for users. This problem is including that, we cannot understand a map including various complicated information, we cannot go to one's destination, and so on. The purpose of this study is to establish the designing method for the easy map to understand. This research is including, the current situation survey about the map, analysis the map, making prototype, assessment experiment by users. I researched on a kind of classification in the map based on the visual informational view point. According to the result, we need to expand 12 classification as a new classification from the 5 classification “LATCH” by Richard Saul Wurman. My 12 classification from the visual informational view point are that, Location, Alphabet, Time, Category, Hierarchy, Fluctuations, Number, Height, Length, Angle, Viewpoint, Task. Based on this proposal, I made 12 prototypes the map for the Chiba Institute of Technology graduate school. Furthermore, I repeat the evaluation experiment and production of the prototype to propose the designing method for the easy map to understand.

Key words: Interaction and Interface Design

1. Introduction
Recently, we see many information graphics, such as a map and a poster and an illustration in the newspaper. However, there are some problems on the map for users. This problem is including that, we cannot understand a map including various complicated information, we cannot go to one's destination, and so on. On the other hand, There are 5 classification “LATCH” by Richard Saul Wurman to systematize information. Nevertheless, there is a possibility that “LATCH” is not enough to understand information. Therefore, we need to approach various angles. The purpose of this study is to establish the designing method for the easy map to understand.

2. Research method
At first, as a research, I selected some famous information graphic works. Next, I analyzed the graphic works to find out the classification from the visual informational view point. And, I proposed new
classification from the visual informational view point. Next, I made prototype based on this proposal. I experimented for the verification of the prototype.

3. Classification research for the map

3.1. Outline of research

I researched on a kind of the classification in the map. Purpose of research is to verify if the 5 classification “LATCH” will be enough and to find another classification.

3.2. Content of research

At first, I researched 10 maps based on the visual informational view point. 10 maps are the famous information graphic works that is the easy map to understand. After the research, I wrote in the classification from the visual informational view point on the graphic works. (Figure.1)

3.3. Result of research

After the research, I found the problem on the map. The “LATCH” has several problems. One is that, some informations don’t belong to the “LATCH”. Because, there are some other classifications. Thus, the “LATCH” not to be a perfect classification from visual informational view point. Another is that,
“Hierarchy” in the LATCH is an unclear classification. “Hierarchy” by Richard Saul Wurman is including “Continuum”, but we could classify “Continuum” still more.

As a result, I found new 7 classifications from the visual informational view point. Therefore, we need to expand 12 classification as a new classification from the 5 classification. My 12 classification from the visual informational view point are that, Location, Alphabet, Time, Category, Hierarchy, Fluctuations, Number, Height, Length, Angle, Viewpoint, Task.

4. Proposal of prototype
4.1. Content of prototype

I made 12 prototypes the map for the Chiba Institute of Technology graduate school. (Figure.2)

There prototypes are based on my 12 classification from the visual informational view point from the result of research.

Figure.2 Prototypes
4.2. Assessment experiment

I asked five students executed the evaluation of the prototype. They are students who intend to go to graduate school. Purpose of assessment is to analyze that the prototype is easy to understand for students. I asked them to use seven rankings to evaluate. In addition, I conducted hearing research for them. As a result, I had some opinions and problems. For example, one is that, they could understand the map. Because, I made the easy map to understand selecting the most suitable classification from new classifications. Another is that, the evaluating a degree of easy to understand was difficult for them. Therefore, I need to improve the assessment method.

5. Conclusions

I found needing to expand 12 classification as a new classification from the 5 classification “LATCH” from the research. My 12 classification from the visual informational view point are that, Location, Alphabet, Time, Category, Hierarchy, Fluctuations, Number, Height, Length, Angle, Viewpoint, Task. Based on this proposal, I made 12 prototypes the map for the Chiba Institute of Technology graduate school. Furthermore, I experimented for the verification of the prototype.

6. Examples Citations