# A Study of Lightning Fixture to Solve the Living Room Problem

Hashimoto Sanga, Kurosawa Ryuya, Nagai Yukari Japan Advanced Institute of Science Technology

Abstract: In recent years, some lightning methods have been proposed. We propose lightning fixture by the design.

Keywords: Design, Lightning Fixture, Brainstorming

## 1. Introduction

Bright are essential for life. People have some different life styles in living room and illumination method is also different. Different impression by direct lighting or indirect lighting, stand light or ceiling light. The illumination method have been proposed in each situation[1][2]. In this case we proposes a ceramic lighting fixture, which solve the problem in living room.

Some groups propose furniture to enrich the lives and necessary functions by brainstorming. Create the idea and sketch for lighting fixture. A person with a sketched explains function of lighting fixture for group members, and then evaluated ideas.

Group will select the best sketch from member's ideas. The selected sketch is the proposal of a new lighting fixture.

## 2. Purpose

Proposal of lightning fixture, which made of ceramic.

#### 3. Design Experiment

We did an experiment, which consist of three steps as follows.

Step:

- ◆ Recite the conditions for lighting fixture by brainstorming Step2
- ◆ Draw lighting fixture with solve the problem Step3
- ◆ A participant decide by voting for a good idea

Experiments were carried out in two groups(Group1 and Group2).Group1 is composed of the only Japanese. Group2 is a mix of Chinese and Indian and Japanese.

#### 4. Experimental Results

Group1's requirement definition is used the following functions.

- ◆ Suppress shadow
- ♦ Enable processing
- ◆ Tough
- ♦ Flexibility texture

Figure 1. Group1's idea



Fig.1 shows the things that group 1 has sketch from requirements definition.

Group2's requirement definition is used the following functions.

- ◆ Texture in traditional Japanese Style
- Sensors(sound sensor, camera, etc...)
- ◆ Texture have some patterns (animals, birds, etc,...)
- ◆ Transmissive ceramic

Figure 2. Group2's idea



Fig.2 shows the things that group2 has sketch from requirements definition.

# 4. Conclusion

Group1 consists of only Japanese implicit target Japanese living room. Group2 was mixture of different countries made a proposal lighting fixture along the Japanese culture. Both team see that control bright from environment. To produce a space as a control pressure sensor, image recognition and sound sensor. We will consider how to do production by sensor has acquired value.

# References

- N. Suzuki, E. Mochizuki, D. Oikawa, "Proposal of Lightning Method in Classroom of Primary School Considering the Teachers' Brightness Sensation" Proceeding of CIE 2014 "Lightning Quality and Energy Efficiency", pp.720-725
  R. Okunishi, H. Aida, H. Ikegami, M. Miki, "An intelligent
- [2]R. Okunishi, H. Aida, H. Ikegami, M. Miki, "An intelligent lightning system with a seat management mechanism", The science and engineering review of Doshisha University, Vol55,pp.236-243