日本色彩学会誌
JOURNAL OF THE COLOR SCIENCE
ASSOCIATION OF JAPAN

日本色彩学会第43回全国大会要旨集

会期：2012年 5月 25日-27日
会場：京都大学吉田南キャンパス

照明新時代シンポジウム：5件
口頭発表：51件
ポスター発表：35件
International Symposium：6件
International Conference：23件

会場案内
プログラム
協会認定 パーソナルカラーアドバイザー

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最上級資格所得者に対し 協会より
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特定非営利活動法人（NPO）
日本パーソナルカラー協会

URL : http://www.p-color.jp
e-mail : info@p-color.jp
THE COLOR SCIENCE ASSOCIATION OF JAPAN
THE 43rd ANNUAL MEETING

May 25 (Fri)－27 (Sun), 2012
Kyoto University (Yoshida South Campus)

● International Symposium <May 27 (Sun)>
"Color Science for Our Better Life"
Guest Speakers: Prof. Haihong Xu of Hangzhou University, China, Prof. Miho Saito of Waseda University, Japan, Prof. Lee Tien-Rein of Chinese Culture University, Taiwan, Prof. Young In Kim of Yonsei University, Korea, Prof. Poonmat Pungprasamee of Chulalongkorn University, Thailand, and Prof. Ken Sagawa of Japan Women's University, Japan.

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Study in Human Color Perception on Outdoor Advertising Cutout
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Venue and Program
Study in human color perception on outdoor Advertising cutout

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Keywords: human, perception, outdoor advertising cutout, font size, color of font, font type.

1. Introduction

Advertising sign is an effective of communication for business. There are different advertising signs used in several purposes for example banner, building sign, cutout etc. There are generally several factors effect to viewing outdoor advertising cutout for instant viewing condition, color of font, font size including font type and viewing distance. This study will focus on font size and viewing distance of its. In the experiment different font types in Thai this experiment and will be inquire perceive color of cutout in D65 viewing condition. The results from this research would be advantageous for advertising and printing industry in order to create a suitable cutout for several viewing condition.

2. Experiment

2.1 The readability perception of Thai alphabet letters size was made up by setting the distance at 1.55 meter, 6,500 K of color temperature, tested with the Thai font round head characters size ranging from 1.6, 1.8, 1.9, 2.1, 2.3, 2.5, 2.6, 2.8, 3.0, 3.5, 3.8, 4.0, 4.2, 4.3, 4.5, 4.7, 5.0 to 5.2 mm.

2.2 Experiment of readability perception of Thai alphabet letters color was made up by setting the condition of the distance at 1.55 meter, 6,500 K of color temperature, tested with the round head characters 10 kinds of color including black, grey, yellow, pink, red, green, blue, orange, brown, and purple. Each color is divided into 3 brightness levels by adding the different percentage of white color. (Level 1 means percentage of main color and white is 100% + 0%, Level 2 means 50% + 50% and Level 3 means 20% + 80%)

2.3 Experiment of readability perception of Thai alphabet letters font was made up by setting the condition of the distance at 1.55 meter, 6,500 K of color temperature, tested with the 4 different black Thai character font size ranging from 4.0, 4.2 to 4.3 mm. these 4 different fonts are including with head fonts (Angsana New), without head fonts (Lilly UPC), hand write fonts (Sarun’s menorah) and display type fonts (TH Charm of AU).

Fig. 1. Thai character font

3. Result and Discussion

3.1 The result of readability perception of Thai alphabet letter size

Fig. 2. Thai font round head characters size

Figure 2 shows the results of this experiment showed that the more larger font size, examinee can perceive and read more accurate by the reason of, when the font size becomes larger, it will also appeared in eyes’ retina larger. Thus, it was very detailed by examinee. The result of each examinee was near the average score. It was founded that the character size which was read most accurate was 3.0 mm. above, subordination score are 4.0, 4.2 and 4.3 mm. respectively. The similarity of character e.g. in this experiment accuracy percentage in the visibility of characters of any size exceeds 50 percent, though it is the smallest size of the height.

3.2 The result readability perception of color experiment in Thai character. The result of above experiment founded that nearly every color has a high percentage of accuracy, except the 90 hue angle which is yellow in the height of 4.0 mm. was comparatively low of accuracy percentage as seen in the graph.
looks like the writing alphabet letter that makes reading difficult. All different alphabet letter types had low percentage in visual acuity because they were not clearly to see and also the results of visual acuity is similar in every size of alphabet letters and same results from all subjects.

4. Conclusion

In order to design black alphabet letter on white background color for advertising cut out printed by screen printing process it should use height of alphabet letter at 1.8 mm. (0.45 inch) or higher which is equal to 32.4 point at 960 cm. distance. However people who can usually see the advertising cutout may understand words or sentences which used the height of alphabet letter low than the results of this experiment because of understanding the sentence normally it has to consider the meaning of each word or sentence even it is not possible to recognize some of alphabet letter

Researcher suggests that selecting color of alphabet letter and background color is should be high contrast in order to clearly perceive for example black color or green color for alphabet letter on white color for background. However yellow and brown color for alphabet letter on white background is not recommended.

In conclusion round head character in Thai font was suitable for precise visual acuity and also readability. Hence designer who would like to obviously communicate or to emphasize an important sentence should select round head character also avoid to using display type.

References

