

CHAPTER 5

CONCLUSION

This research studies the color combination sensation of Thai observers by deriving the quantitative visual scale of the word which use fourteen opponent word pairs through seven point. From the visual assessment results, the values of color difference, chroma difference and hue difference seem to affect opponent word pairs “Dark- Light”, “Vague-Distinct”, “Sombre-Vivid”, “Passive-Dynamic”, “Plain-Gaudy”, “Subdued-Striking” and “Disharmony-Harmony”, while lightness difference has influence for “Dark-Light” and “Vague-Distinct.

The visual score of fourteen opponent word pairs are extracted by the extraction method of principle component analysis and an orthogonal rotation as three factors accounting for 88.57% of total variance. Component 1 is composed of “Plain-Gaudy”, “Subdued-Striking”, “Passive-Dynamic”, “Vague-Distinct”, “Sombre-Vivid” and “Cool-Warm”. Component 2 is composed of “Light-Heavy”, “Turbid-Transparent”, “Dark-Light”, “Hard-Soft”, “Pale-Deep” and “Weak-Strong” and component 3 is composed of “Dislike-Like” and “Disharmony-Harmony”.

The obtained three dimensional color sensation model consists of 3 components. The first dimension is “Plain-Gaudy”, “Subdued-Striking”, “Passive-Dynamic”, “Vague-Distinct”, “Sombre-Vivid”, all opponent word pairs in first dimension are determined by chroma. Second dimension is “Light-Heavy”, “Turbid-

Transparent” , “Dark-Light” , “Hard-Soft” , “Pale-Deep” and “Weak-Strong” all opponent word pairs in second dimension are determined by light. Third dimension is “Cool-Warm” which is associated with hue.

The establishment of the model of color combination sensation and its relevant single color sensation is possible to relate one another. Comparing the visual result from observers with those from color combination sensation equation, it gives satisfactory correlation coefficient value at the level of 0.76-0.89.

The relationship between “Disharmony-Harmony” and the values of hue difference and chroma difference is found significantly. The color harmony value reduces when the value of hue difference and chroma difference increases. Comparing the visual result from observers with those from derived equation, it shows correlation coefficient value at 0.65. Note that, only some selected color pairs can predict nearly close to the visual results. Further more, it is found that the assessment of “Disharmony-Harmony” color sensation of Thai observers has relationship with “Dislike-Like” color sensation, Thus, it is possible to predict the level of “Dislike-Like” by color harmony values.

Regarding, the relationship between two opponent word pairs base on fourteen opponent word pairs, the correlation coefficients greater than 0.8 were found at “Dark – Light” and “Turbid – Transparent”, “Passive – Dynamic” and “Plain – Gaudy”, “Pale – Deep” and “Light – Heavy”, “Pale – Deep” and “Weak – Strong”, “Vague – Distinct” and “Sombre – Vivid”, “Light – Heavy” and “Weak – Strong”,

“Hard – Soft” and “Light – Heavy”, “Hard – Soft” and “Pale - Deep”, “Dark – Light” and “Sombre - Vivid”, “Plain – Gaudy” and “Subdued – Striking”, “Vague – Distinct” and “Subdued – Striking”.

The Suggestion

The future research project in this area should apply the obtained results to product design, such as clothing, packaging, interior architecture and furniture etc. Then the data will be collected to compare with the model of color combination. The comparison between gender and culture difference should be included. In addition, the study should be extended to 3 or 4 colors combination and other color combination attributes, such as area, configuration and order etc.

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