Color preference of the Malay population in the design of a virtual environment

Zahari Taha[a]; Hartomo Soewardi[b]; Siti Zawiah Md Dawal[c]
[a]Faculty of Mechanical Engineering, University Malaysia Pahang 26600 Pekan, Pahang
[b]Faculty of Industrial Technology, Islamic University of Indonesia Yogyakarta-Indonesia
cDepartment of Engineering Design and Manufacture, Faculty of Engineering, University of Malaya

ABSTRACT
One of factors contributing to the incidence of cyber sickness in a virtual environment is color. This paper describes an investigation of the color preference in a virtual environment of the Malay population. A survey was conducted on the color preference of the , virtual static object and motion object. 64 subjects, (N = 34 male and N = 30 female, age between 17 to 50 years old), participated in the survey. Participants were asked to choose their 10 favorite single color for the virtual background color, virtual static and motion object color. Two tailed Z-test was conducted to test the difference between male and female color preference. The results show that red and medium slate blue colors are the most preferred colors for the virtual background by both, male and female. Red, blue, and deep pink colors are the most preferred colors for the virtual static object for both, male and female. And red and black colors are the most preferred colors by both, male and female, for virtual motion object.

KEYWORDS:
Cybersickness; Color preference; Virtual environment

REFERENCES

1. Barrett,Judy.2004. Side effects of Virtual Environments: A Review of the Literature, DSTO-TR-1419,pp. 1-47.

2. Cao, L.R., Zhu, Z.X. 1995: The effect of contrast to visual efficiency of color CRT [J]. Ergonomics (in Chinese) 1(1), 32–36.

3. Chan, A.H.S. and Courtney, A.J. 2001. Color associations for Hong Kong Chinese. International Journal of Industrial Ergonomics. (28). 165–170

4. Cheng, H.I., Kyong-Hee Lee and Hosoong Lee. 2007.Color Preference Of The Korean Elderly. International Association of Societes of Design Research. The hongkong Polytechnic University. 12-15 November.

5. Courtney, A.J., 1986. Chinese population stereotypes: color associations. Human Factors 28 (1), 97–99