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Effect of Color Appeared in Signage to Identify Gender of Thai

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ABSTRACT

This research aimed to study the effect of color appeared in signage to identify gender of Thai people. Colors used in this study were light blue and dark blue, identified as male; red and pink, as female and black as neutral color. Two symbols, as for male and female, were in aforementioned five colors. So the total was ten images. These symbol images were showed within 2 seconds. The subjects were 50 Rajamangala University of Technology Thunyaburi students. For the first evaluation, the subjects assessed the color of the symbols whether or not that color was identified as male or female. For the second evaluation, the subjects assessed the details of the symbols whether or not they were male or female. Then these two evaluations were compared. The results showed that the factor that most affecting gender identification was the details in the symbols. Color appeared in symbol is not relevant to gender identification in this experiment.

1. INTRODUCTION

Color is what we all see because it has physical properties. The color is what we see with our eyes. It also tells a story or information to human and creature. These data, such as food, are very important to our life. Creatures differentiate color of plants and animals so they can tell what can or cannot be eaten. Or they can tell the time from the color of the sky. Even the color can also be used to differentiate the human tribes, such as black is represent Africans, yellow for Mongoloid in Asia, and white for Caucasian in West and Scandinavian. (Pungrassamee and Ikeda 2008)

Colors are involved in our daily, considering the various appliances we use. Humans have known to use color since the old days, for example, the painted images on cave walls hundred years ago. Colors are around us as we are learning today. Colors are used to identify the ripe fruit that can be eaten or not. In addition, it also used to convey the meaning of writing, such as the color used in traffic signs on the road (Tangkijviwat 2014)

Red sign means danger. Yellow means caution. Green, often seen on the road, means harmless. Therefore, green has been used for many things, such as, in medical condition or to convey the emotion.

Colors are often used for designing advertising media in order to create the beauty and the eye-catching material, as well as it is used to convey the meaning of the typography in order to make the audience easily understand the message. (Itsadul 2007)

From the aforementioned reason, colors are very useful for daily life and also affect the interpretation. They can be conveyed without a written text and can easily be interpreted and understood. Therefore, this research was to study the influence of the color of the

symbols that affect the classification of male and female of Thailand. Colors in Thailand have not been used as a standard to represent female and male. Unlike many other countries, such as Japan, colors are used to convey the meaning of female and male, such as red is used for lady's room and black or blue is used for men's room. In this study, the researcher chose dark blue and light blue as the color identified as male, red and pink as female and black as neutral.

2. METHOD

Female and male symbols were presented on a monitor placed inside an experimental room. Ten symbols were created by the combination of two gender (female and male) and five different colors (dark blue, light blue, black, red and pink) as shown in Table 1. These symbols were presented on a white background as shown in Figure 1. The room illuminance was kept constant throughout the experiment. The viewing distance is fixed at 30 cm. 50 undergraduate students of Faculty of Mass Communication Technology were participated in this experiment.

Table 1. Chromaticities of color symbols.

Colour name	Y	x	y
Red	35.6	.527	.339
Pink	34.7	.416	.217
Black	3.63	.286	.312
Drak blue	33.0	.154	.121
Light blue	42.5	.186	.187
White	200	.295	.326

The experiment started by asking the subject to enter in the experimental room and adapt to the room illumination for 2 minutes. A symbol image was presented to the subject one at a time. Each symbol was displayed for 2 seconds. Then, the symbol was disappeared and replaced by gray background in order to make the observer ready for the next assessment.

There were two tasks for each subject. For the first task, the subject was asked to identify if that symbol represent the female or male. In case of the second task, the observer was asked to identify if that color of the symbol represent the female or male.

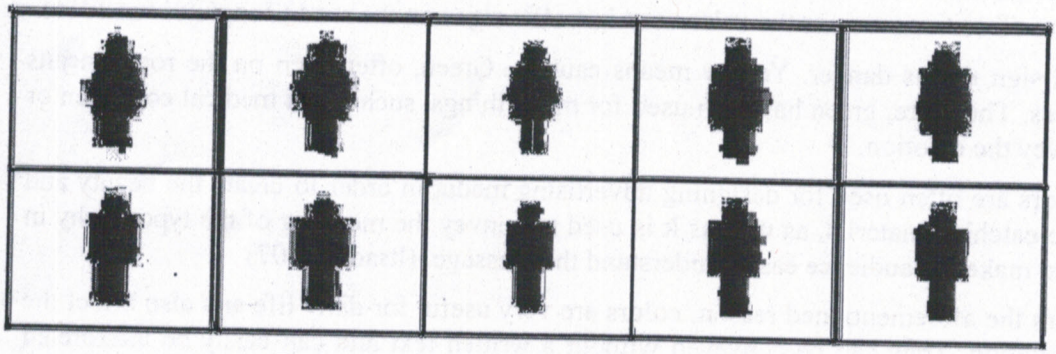

Figure 1: Color and symbol used in the study

3. RESULTS AND DISCUSSION

The result of the first task was shown in Figure 2. Almost all the Thai subject could correctly identify the gender of symbol even though that symbol was created in any colors. The results implied that color appeared in symbol has no effect on gender identification in this experiment.

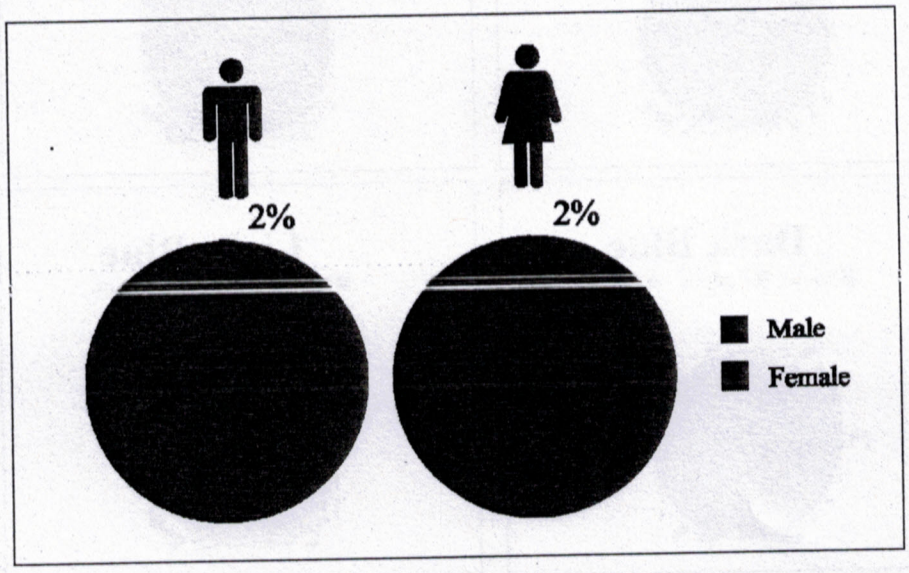

Figure 2: Gender identification by Symbol's details

The results from the second task were shown in Figure 3. We hypothesized that red and pink should associate with female identification, whereas blue and light blue should associate with male identification. Our results seemed to follow our hypothesis. 86% of Thai thought that pink was strongly represented the female and 60% of Thai associated red color with female. In case of male, dark blue and light blue associated with male by 74% and 54% respectively. However, color which strongly associated with male was neutral color like black.

If the saturation of color is considered, it seems that low saturation color such as light blue and pink obtained higher female identification than the vivid color. According to the hypothesis, red was represented female. However, 24% of the subject thought that it was represented male and 16% thought that it was represented both gender.

This concludes that, for Thai, even though there was some association between color and gender. But this association was not relevant to the gender identification in symbol. It was possibly due to no usage of color code to express gender in Thailand. Unlike some countries, for example, Japan, the male toilet symbol is generally blue or black and the female toilet is generally red. We expected that the obtained result would be different if the subjects were Japanese who are familiar to the color coding for gender identification in their daily life. Further experiment is required to confirm this expectation in the future.

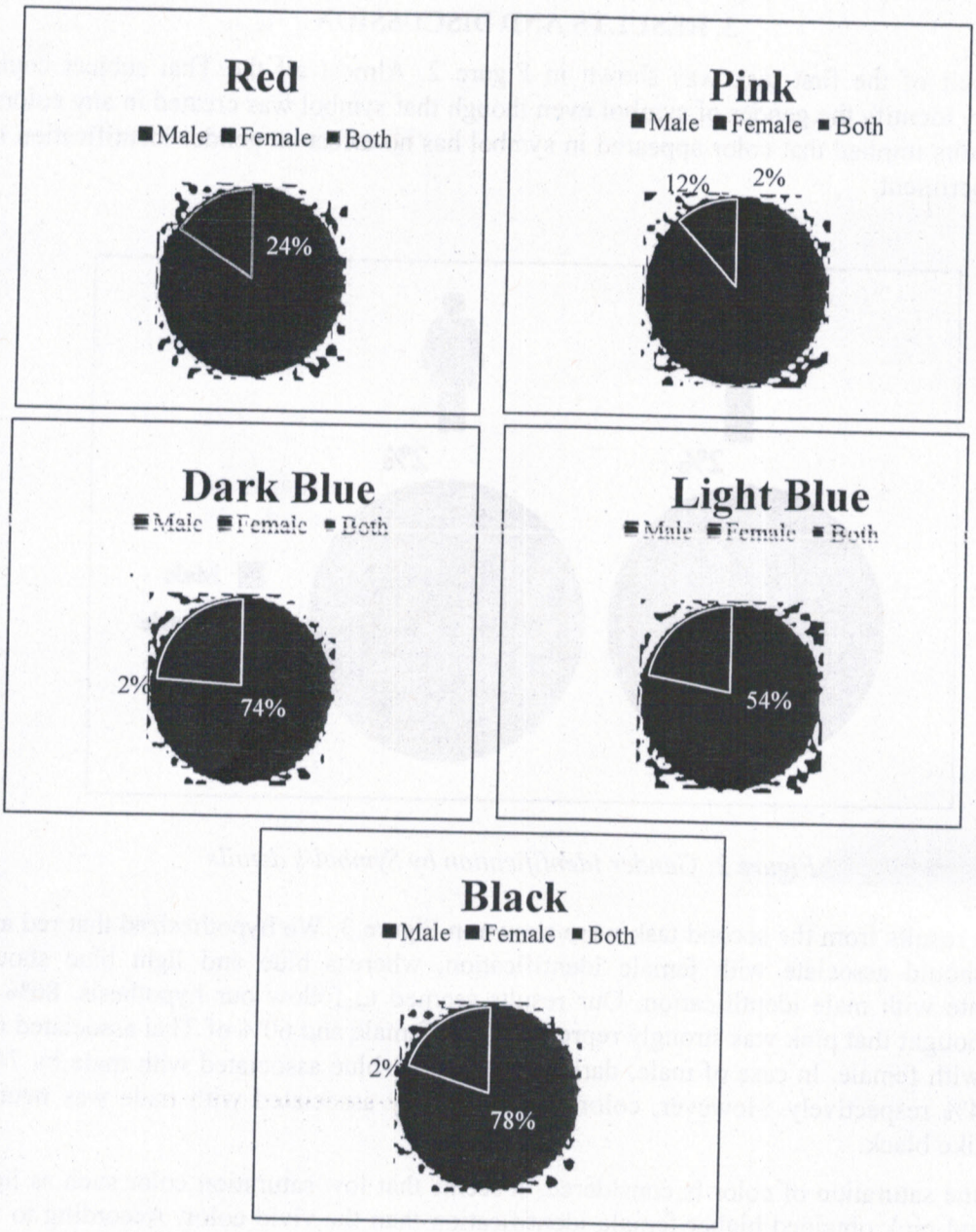

Figure 3: Gender identification by Symbol's color

4. CONCLUSIONS

The study found that the factor influencing gender identification in Thailand was the detail of the symbol but not the color of the symbol. From the first task, the subject correctly identified gender of the symbol. The subject also had the answers in the same direction whether the symbols were alternately colored. In the second task, the subject had different opinions when asked to identify the gender after seeing the color of the symbol. Almost the subjects agreed that pink was represented as female. Blue and black were represented as male. However, this association was not relevant to the gender identification in symbol.

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