# **Gender Differences**

# in Mandarin Color Vocabulary

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# 【摘要】

二十世紀末學者 Lakoff (1975) 根據對美國社會中英語使用的個人觀察發表了「女性語言」的大膽論述,其中主張男女在使用顏色字彙上有別。本研究目的爲利用科學實證法查驗此西方理論是否適用於東方華語社會。研究結果顯示女性比男性明顯地擁有較多的顏色字彙,且女性喜好使用間接的有條件複雜顏色敘述方式,而男性傾向使用較直接的基本顏色字彙。

# 【關鍵詞】

女性語言、顏色字彙、顏色命名

## [Abstract]

In the end of the twentieth century, Lakoff (1975) presented a provocative argument concerning woman's language based on her personal observation of English use in American society. She claimed that women used color vocabulary differently from men. In this study Lakoff's claims were verified in the context of the use of Mandarin color vocabulary in Taiwanese society by a color naming test. The results showed that the female subjects had a larger size of Mandarin color vocabulary than the male subjects. In addition, while the female subjects preferred to use qualified fancy color vocabulary, the male subjects tended to use direct color terms.

# [Keywords]

Woman's language, color vocabulary, color naming

#### Introduction

Background and Motivation

"Oh, look at that peach sweater! It's so cute. Will it look good on me? What do you think?" "Uhm? Which one? Oh, you mean the pink one?" The conversation was overheard from a couple in a shopping mall. Guess, who said the first sentence? Yes, the woman did. The difference between *peach* and *pink* in this conversation does not lie in color description only but illustrates the gender difference as well. Men and women are different in many ways; language is one of the aspects.

Men and women use language differently. A large number of evidences show that the language of women is not always same as the language of men. To be specific, Robin Lakoff (1975) in her provocative book, *Language and Woman's Place*, boldly argued the six characteristics of women's language in her times: special lexical choice, question intonation in statements, hedges, emphatic modifiers and intonational emphasis, hypercorrect grammar and pronunciation, and superpolite forms. For women's special lexical choice, one of the interesting arguments is the color terms. In terms of women's color vocabulary, Lakoff asserted that

"Women make far more precise discrimination in naming colors than do men; words like *beige*, *ecru*, *aquamarine*, *lavender*, and so on are unremarkable in a woman's active vocabulary, but absent from that of most men." (pp. 8-9)

Although Lakoff's claims about women's language are challenging, the data contributing to her conclusions of women's talk are intuitively based on her introspection of her own speech and observation of media but not on any empirical findings. This cannot successfully convince people. Thus, her claim that women have a larger size of color vocabulary than men deserves further empirical studies to verify. Besides, Lakoff's claims resulted from the analysis of English in American society. Few studies have been done to examine whether Lakoff's hypothesis can be generalized to other languages and societies in the world. Therefore, further studies conducted in different language societies are needed to test her hypotheses.

Mandarin, as one of the variants of Chinese, is the official language spoken in Taiwan. Although the color vocabularies in Mandarin had been linguistically studied for its morphology, classification, characteristics, etc. (Lee & Chu, 2012; Wang, 2005;

Yao, 1988), few researches are carried out to explore the differences between men and women in use of Mandarin color vocabularies.

In view of the problems mentioned above, the researcher decided to justify Lakoff's hypothetical claims about peculiarity of women's language by conducting an empirical study to examine men and women's performance in color naming. Additionally, in order to test the generalizability of Lakoff's hypotheses, the researcher performed a color naming test in northern Taiwan to check whether women have a larger size of Mandarin color vocabulary than men.

#### Purposes of the Study

The purposes of this study were to investigate the differences in the size of Mandarin color vocabulary between male and female university students in art-related departments in northern Taiwan, and to discuss what specific gender differences were in Mandarin color-naming performance.

#### Research Questions

This study was carried out to explore the difference between men and women's Mandarin color vocabulary in northern Taiwan. Specifically, two research questions in this study were addressed, as follows:

- 1. Is there any significant difference of Mandarin color-naming performance between male and female art-major university students?
- 2. What are the specific gender differences of Mandarin color vocabulary among art-major university students?

#### Significance of the Study

The findings of this study may be found significant in the following aspects. To begin with, the validity and generalizability of Lakoff's strong claim of women's special choice of color terms based on her personal observation were investigated in this study. Her statements of women's language were verified by a color-naming test. In addition, gender differences of Mandarin color vocabulary were explored by the test. Different performance between the male and female subjects could be illustrated. Moreover, findings of this study are expected to provide some references for understanding the size of Mandarin color vocabulary for both genders as well as some

implications for the possible effects on the gender differences in the use of Mandarin color vocabulary in Taiwan.

# Limitations of the Study

There may be some limitations in this study. First, this study was somewhat limited to the number of participating subjects. There were about 80 subjects in this study that might not be large enough to be generalized to the performance of art-major male and female university students in Mandarin color naming in Taiwan.

Second, the other limitation was that the subjects were university students whose high level of education might affect the results of the study. That is, the subjects might possess the ability to describe color terms with greater specificity than lower educational group. Thus, the results might not be generalized to lower educational groups.

Third, the research method chosen in this study might cause an effect on the subjects' color naming performance. That is, their awareness of using color vocabulary could be raised during the process of the color naming test in which they were asked to name colors for the color cards. However, such a situation was necessary to elicit the subjects' responses to color naming. It was difficult to conduct a test in which people were asked to name color implicitly without mentioning colors. Nevertheless, this possible effect was constant across all groups of subjects in the test and should not have an influence on the relative scores of groups.

#### Literature Review

Research into language and gender has not been really taken into serious considerations until the early 1970s (Wolfson, 1989). However, it does not mean that this field was not touched upon before. Early in the 1920s, Jespersen (1922) devoted an entire chapter to "The Woman" in his book, *Language: Its Nature, Development, and Origin.* Jespersen studied the differences between men's and women's speech in both exotic non-western societies and western European societies, particularly English-speaking countries. He indicated that women did use some special linguistic forms more often than men did, such as euphemistic words, emotionally loaded adverbs and adjectives, and rapidity of reading and thinking.

In the light of the differences between men' and women's language, more and

more sociolinguists have been motivated to investigate the reasons behind. In general, the gender differences in speech are found to mainly result from age, socialization practices, education and social status (Holmes, 1992; Wardhaugh, 2002). Men and women's age, growing processes, educational levels, and status in a society will more or less affect their uses of a particular language. To be specific, Lakoff (1975) claimed that women's speech was affected by their social status. She proposed her argument by giving examples of women's language from her introspection and observation of American society. She found that women, compared to men, tended to have special lexicon, such as color terms, varied their intonation in statements, used hedges to be polite, and paid attention to their grammar and pronunciation. According to Lakoff, women were using the language to strengthen their subordinate status in the society. That is, cultural assumptions are implied in language, so language reflects and even reinforces the order of societies in Lakoff's belief. Differing from Lakoff's viewpoints, Labov (2001), in his discussion of language change in Philadelphia, indicated that women intended to use the standard speech form to elevate their social status. In order to improve their status in the society, women either consciously or unconsciously speak the standard form of language as one of the strategies. In a word, the fierce debate that women's speech is different from that of men's continues as long as the two genders exist.

In terms of gender differences in color naming, a great deal of previous research has been conducted on color perception and its representation in language. For example, females have been shown to be able to name colors more quickly upon presentation than males. The female's advantage at speeded color naming was first reported by Woodworth and Wells (1911). Their color naming test, Woodworth-Wells color naming test, examined the nine male and five female college students' speed of recognizing standard colors. The subjects in the test were presented with a card showing 100 1-centimeter square patches of color. Each patch is either colored with red, yellow, green, blue, or black. The subjects were timed as they named the colors of the patches in order. The research results unveiled the fact that the female college students completed the color naming test faster than the male ones did. Later on, Ligon (1932) expanded on Woodworth and Wells's result by administrating the same color naming test as well as a color name reading task to a larger sample of 638 children in grades one to nine aged six to sixteen. He obtained a similar result for

color naming test to Woodworth and Wells that female children performed better on the speeded color naming task than male children. Yet, no sex difference for the color name reading task was found. The findings made Ligon claim that some of the gender differences were acquired at a very early age. Similarly, Saucier, Elias, and Nylen (2002) also proved that women named colors faster than men did. The researchers tried to examine the female advantage for speeded color naming by administrating tests of color naming, color discrimination, shape naming, and articulatory speed to a sample of 44 student subjects. The results of their tests showed that women's advantage to name color rapidly was due to a more general superiority rather than a special factor of color naming. In addition to the discussion of female's fast speed of color naming, Chapanis (1965) reported that females were able to assign names more consistently to a wide range of colors than males. Moreover, Conley and Cooper (1981), in testing preferences in ordering conjoined color terms (e.g., black and white), concluded that females showed stronger ordering tendencies than males.

Aside from the studies mentioned above, a few empirical researches had been done to examine the gender difference in the size of color vocabulary. The findings support Lakoff's claims regarding that women have a larger color word bank than men. For example, by conducting experiments of color naming, color matching, and color description to college students, Nowaczyk (1982) found that women used more elaborate descriptions of color than men. In addition, both Rich (1977) and Machen (2002) studied the gender and age differences in color naming. In Rich's study, he proposed a color naming test and distributed to five different groups of subjects for different age, sex and occupation. The study was concluded with three significant findings. First, women used fancier words than men. Second, women of different ages had a similar size of color vocabulary. Third, younger men had larger color vocabularies than older men. However, by adopting Rich's four color descriptor categories, Machen had different findings from Rich's. Machen found that women aged over 16 years-old showed a more elaborate color vocabulary than men while among the 14- to 16 years-old subjects there was no significant difference in color naming between two genders. More interestingly, Simpson and Tarrant (1991) collected data on color naming of 200 color samples from 26 females and 24 males and found that women used more elaborate color names in comparison to men. Yet, contrary to previous studies' findings, they indicated that the older subjects of both

genders had more elaborate color description than the younger subjects. Even, older men had a more elaborate color vocabulary bank than younger women, which showed that color vocabulary continued to increase with age though gender differences existed. Moreover, they believed that men's color vocabulary could be enhanced by color-related hobbies, but not for women.

In short, the differences between men and women are not restricted to physical appearances but are reflected in their language use. From the above studies, women's special lexicon of color terms and the related tests are reviewed. The discussion of the relevant studies is hoped to provide the theoretical basis for this study.

# Methodology

Subjects

In order to have a valid result, the researcher conducted a color-naming test to discover the gender differences of Mandarin color lexicon. About 80 participants were involved in this study; they were university students, aged 19 to 22, randomly selected from National Taiwan University of Arts (NTUA). The reason of targeting NTUA to select the subjects for this research was to ensure that all subjects of both genders were interested in art-related fields. That is, to avoid the stereotype that women are better at color terms because they are more interested in fashion and arts than men. The subjects of both genders recruited for this study were all majoring in art-related departments: Department of Visual Communication Design, Sculpture Department, Fine Arts Department, and Department of Painting and Calligraphy Arts. With the same interest in arts, the subjects' gender difference in color-naming performance should be clearly illustrated. What is more, among the subjects, they were half male and half female. Furthermore, the subjects were all native speakers of Mandarin who were not color blind.

# Color Naming Test

The method of color-naming test used in Rich's (1977) study was slightly modified for this study. Specifically, a set of 25 3x5-inch color cards was constructed. In the center of each card, the color was laser printed in a two-inch square for subjects to name. The 25 colors in this study, primary colors with slight differences, were

randomly selected from Pantone color chart. No color was repeated.

Along with the 25 color cards, a questionnaire (Appendix) was designed for subjects to write down their naming of colors. In order to help subjects describe colors, the researcher suggested them to imagine themselves in the following situation, which was modified from Rich's study:

You bought a shirt yesterday, and now you are going to buy a pair of pants to match the shirt. You enter a shop but forget to bring the shirt with you. You tell the clerk, "I have already bought a \_\_\_\_\_ shirt. Could you show me a pair of pants to match it?"

The questionnaire was translated and written in Mandarin to enable the subjects to complete the test. Before the test, the subjects were well informed not to check answers with others but were allowed to give the same answers to different color cards.

# Study Procedures

The researcher of this study conducted a color naming test to elicit the randomly-selected subjects' naming of colors. The test was held in a quiet and bright classroom to make sure that the subjects felt at ease. At the beginning of the test, the instructions of what the color-naming test was and how to complete the questionnaire were given to the subjects. After the researcher made sure that every subject understood what they should do in the following test, the test began. The 25 color cards were shown to the subjects one at a time to let them name the color. With their first impression on the color, the subjects had to write down a word or phrase they would use to name the color on the provided questionnaire. The duration of the test was about 30 minutes. It was assumed that the subjects responded with the best of their ability.

<sup>&</sup>lt;sup>1</sup> The 25 colors selected from Pantom Color Chart are PMS 102, 108, 151, 173,185, 203, 226, 283, 286, 334, 369, 381, 423, 561, 627, 2577, 2665, 2768, 2985, 7428, 7502, 7505, 7536, black, and white.

#### Data Analysis

After the test, the subjects' responses to the 25 color cards were collected. Based on the characteristics of color vocabularies in Mandarin synthesized from the previous studies (Chen & Chu, 2012; Wang, 2005), these color terms can be generally divided into two types: basic color vocabularies and compound color vocabularies. The basic color vocabularies, which are monosyllabic in Mandarin, are composed of primary eleven colors, including 紅 'hong' (red), 黃 'huang' (yellow), 藍 'lan' (blue), 戶 'bai' (white), 黑 'hei' (black), 綠 'lu' (green), 灰 'hui' (grey), 紫 'zi' (purple), 棕 'zong' or 褐 'he' (brown), and 橙 'cheng' (orange) (Yao, 1988) as well as other monosyllabic color vocabularies which have been passed down from Old Mandarin. These vocabularies in Old Mandarin refer to certain objects carrying specific colors; yet, the words in Modern Mandarin are transformed to symbolize the color of the objects. For example, 粉 'fen' (pink) is originated from the color of power for women's make up, and 黛 'dai' (black) is a black pigment used by women in ancient times to paint their eyebrows.

As for the compound color vocabularies in Mandarin, they can be discussed from four different perspectives in morphology. First, a compound color vocabulary can be consisted of two monosyllabic basic color words to represent a mix of the colors, such as 灰白 'hui-bai' (greyish white), 紫紅 'zi-hong' (purplish red), and so on. Generally, the rightmost color vocabulary determines the base of the mixed colors. The second kind of compound color vocabulary is a monosyllabic basic color vocabulary modified by an attributive concerning the brightness of the color, such as 粉 'fen', 淡 'dan', 淺 'qian', 鮮 'xian' or 嫩 'nen' refer to lightness in English and 深 'shen' or 暗 'an' for darkness in English. By being added with the attributive, the brightness of the basic color is specified. Third, in addition to being modified by an attributive, a basic color vocabulary can be modified by a noun specifying the color by referring to a real-world object, such as 杏黃 'xing-huang' (apricot yellow), 草綠 'cao-lu' (grass green), etc. The final kind of Mandarin compound vocabularies is usually used to refer to the color of certain objects. Thus, the noun referring to the real-world object is directly adopted as the name of the color. The structure of this compound is the combination of a noun referring to the real-world object and a single word 鱼 'se' (color). For example, 巧克力色 'qiao-ke-li se' means the color of chocolate, or 紫羅蘭色 'zi-luo-lan se' refers to the

color of violet.

On the basis of the classification of Mandarin color vocabulary mentioned above, the subjects' responses were categorized into the following four types, which were adapted from Rich's (1977) four color descriptor categories:

- A. Basic: one of the following basic Mandarin color vocabulary: 紅 'hong' (red), 黃 'huang' (yellow), 藍 'lan' (blue), 白 'bai' (white), 黑 'hei' (black), 綠 'lu' (green), 灰 'hui' (grey), 紫 'zi' (purple), 棕 'zong' or 褐 'he' (brown), and 橙 'cheng' (orange).
- B. Qualified: a basic color vocabulary modified by an attributive, such as 粉紅 'fen hong' (pink), 淡藍 'dan lan' (light blue), 深紫 'shen zi' (dark purple), 暗灰 'an hui' (dark grey), or by another basic color word, such as 黃綠 'haung lu' (yellowish green).
- C. Qualified Fancy: a basic color vocabulary modified by words referring to the real-world objects, such as 天空藍 'tian kong lan' (sky blue), 檸檬黃 'ning meng huang' (lemon yellow), etc.
- D. Fancy: color words not in the basic category but by adopting real-world objects, such as 皮膚 'pi fu' (skin), 米 'mi' (rice), or professional color terms such as 朱紅 'zhu hong' (vermeil), 普魯士藍 'pu lu shi lan' (Prussian blue), etc.

Moreover, following Rich's method of data analysis, the subjects' responses were given different points to each category to calculate the total score. One point was given for use of the basic words in category one, two points for qualified words in category two, three points for qualified fancy words in category three, and four points for fancy words in category four. Because 25 cards were displayed in the test, the possible scores for the subjects were ranged from 25 to 100.

The collected data in this study were computed and analyzed by Reliability Statistics in Scale of SPSS 15.0. The independent samples *t*-test analysis was applied to determine whether there is a significant difference between male and female subjects' responses.

#### **Results and Discussions**

The collected data of this study were analyzed by statistics to investigate the existence and extent of relationships among selected variables: gender and performance of color naming. Although there were about 80 subjects in the study, half male and half female, not every subject's responses could contribute to the conclusion of this study because some of them left one or two items unanswered or others misunderstood the test by writing down the physical items or mental feeling associated with the colors. Take one subject for example, when the red color card was presented to him, he wrote "my high school" as the response. Therefore, only 38 female responses and 35 male responses to the questionnaire were valid to the study analysis.

#### Gender Differences of Color Naming Performance

In order to illustrate the gender difference of Mandarin color naming performance in responding to the 25 colored cards in total, independent samples t-test analysis was adopted. A significant level .05 (p = .05) is established. The results of the independent samples t-test are illustrated in Table 1.

Table 1. *Independent Samples t-test Results of Male and Female Subjects' Responses* 

Gender	N	Mean	SD	t	р
Female	38	66.11	7.195	2.176	0.2.2.4
Male	35	61.97	8.995	2.176	.033*

*Note.* N= Number; SD= Standard Deviation; \*p < .05

From Table 1, it suggests that there is a significant difference of Mandarin color naming performance between male and female art-major university students (p= .033 < .05). The female students tend to have a larger size of Mandarin color vocabulary than the male students (Mean= 66.11 > 61.97). This result is in accordance to Lakoff's (1975) hypothesis that men's and women's languages are different in color vocabulary. Lakoff's hypothesis is scientifically proven by this study and is generalized to the use of Mandarin rather than being restricted to English. That is, the characteristic of special color vocabulary usages is shared by women in both American and Taiwanese

societies. As Rich (1977) claimed, women's size of color vocabulary could be attributed to that they had more chances than men for daily chores related to the use of colors, such as house decoration, clothes shopping, etc. Similarly, in Chinese traditional culture women generally have been taught since childhood that they should be responsible for their household chores. Also, in *Shi Jing* (*Book of Odes* as English translation), it is recorded that women dress up to please the men they adore. The make up or outfits women put on are all related to colors. Thus, it may imply that, being affected by this kind of socialization and traditional education in Taiwan, women are trained to be more sensitive to colors and then to have elaboration on their Mandarin color vocabulary.

### Specific Gender Differences of Mandarin Color Vocabulary

In addition to the finding that male and female art-major university students whose performance of color naming in Mandarin is significantly different, their uses of Mandarin color vocabulary in the four categories defined above were examined in details. For each category of Mandarin color vocabulary, male and female subjects' responses were computed by independent samples *t*-test. The independent samples *t*-test results of male and female subjects' use of Mandarin color vocabulary in the four categories are shown in Table 2.

Table 2. Independent Samples t-test Results of Male and Female Subjects' Use of Mandarin Color Vocabulary in Each Category

	Gender	N	Mean	SD	t	р
Category 1:	Female	38	2.63	2.318	2.551	
Basic	Male	35	5.09	3.230	-3.751	.000***
Category 2:	Female	38	8.58	3.508	<b></b> 0	
Qualified	Male	35	8.06	3.019	.678	.500
Category 3:	Female	38	8.74	4.409		
Qualified Fancy	Male	35	6.66	4.311	2.037	.045*
Category 4:	Female	38	5.03	2.584		
Fancy	Male	35	5.20	2.553	289	.774

*Note*. N= Number; SD= Standard Deviation; \*p < .05

Table 2 presents several specific differences of the use of color terms between two genders. To begin with, based on the descriptive statistical analyses, it is found that men and women have different preferences for using Mandarin color vocabulary. The female subjects tend to use the qualified fancy color words most (Mean= 8.74) and the basic color words least (Mean= 2.63). On the other hand, the male subjects use the qualified color words most (Mean= 8.06) and the basic color words least (Mean= 5.09). That is, women are good at describing colors by using a basic color word modified by a special term, while men excel in using basic color words in combination with particular modifier or with the other basic color words. Although it seems that both women and men seldom use basic color vocabulary in Mandarin, from the perspective of inferential statistical analysis, it is found that there is a significant difference for both genders in using this category of color words (p= .000 < .05). Specifically, the male subjects use far more basic color terms than the female subjects (Mean= 5.09 > 2.63).

Additionally, not only the first category of color words but also the third category is found to show significant differences between the male and female subjects. In other words, there is a significant difference for the subjects of both genders in using the qualified fancy color vocabulary of category three (p= .045 < .05). Specifically, compared with the female subjects, the male subjects use much less qualified fancy color vocabulary (Mean= 6.66 < 8.74). However, as for the other two categories of color vocabulary, both genders of subjects demonstrate similar use.

In general, concluded from the two significant differences of using Mandarin color lexicon between two genders, the results show that males tend to use basic color vocabulary, which are single words with complete meaning, while females are prone to use qualified fancy color vocabulary, which are compound words in naming color. As Lakoff (1975) argued, men's language was direct and women's language was nonassertive. Same as the results in this study, on the one hand, men tend to be direct and straight with their language. When they are asked to name color, they use more basic color vocabularies which are simple and direct in meaning than the qualified fancy words. On the other hand, women incline to be indirect with their language; they prefer using modified words, such as qualified fancy color vocabulary, to direct basic color vocabulary. In fact, these results reflect the gender differences which may be affected by the traditional Chinese culture. Nowadays, Taiwan still can be

considered as a society of patriarchy. In Taiwan, though recently women are earning a place in society, in the past for most of the time they were educated to respect men as a leading role in family and to follow their orders. Thus, men traditionally, who comparatively have higher social status in Taiwanese society, are more direct with their language to give their commands, whereas women in Taiwan are more careful with the language they are using. This indirectness and carefulness may imply that women's language in Taiwan is implicitly and unconsciously strengthened by the inequality of their social status.

However, the similar use of color vocabulary in category four should not be neglected. Despite the fact that male subjects use less qualified fancy color vocabulary than female subjects, both male and female subjects perform equivalent ability in using fancy color vocabulary. What is more, from the study results, though male subjects are with fewer tendencies to use modified color vocabulary, they are still capable of using professional fancy color vocabulary, which are single words to show their directness.

# Conclusion

This study aims to examine the gender differences of color vocabulary in Mandarin. The subjects in this study were from the art-related departments at NTUA in northern Taiwan to avoid that stereotype that men are weaker at color terms because they are not interested in arts. All subjects were involved in the test to name the color of 25 presented color cards. Based on the results of the test, it is found that men and women do have significant differences in color-naming performance. Women tend to have a larger size of Mandarin color vocabulary than men, as hypothesized by Lakoff (1975) for English in American society.

In addition, this study also investigates the detailed gender differences of Mandarin color vocabulary in four categories. The results indicate that there are significant differences of using Mandarin color vocabulary in category one and three. Men tend to use direct basic color vocabulary to describe colors but women incline to adopt qualified fancy color vocabulary to name colors in a less straightforward way. These findings of gender differences in the use of Mandarin color vocabulary may be attributed to the influence of traditional Chinese culture.

However, this study is limited by the small sample size of subjects. Further

studies that collect data from a larger size of subjects are strongly recommended. Additionally, the subjects in this study were selected from NTUA in northern Taiwan. Future studies should include subjects from different backgrounds and in different areas to make the results be generalized as much as possible.

In conclusion, the evidence collected in this study confirms Lakoff's hypothesis that women have more extensive color vocabulary than do men. It also indicates that the nature of men and women indeed affects their performance on color naming.

#### References

- Chapanis, A. (1965). Color names for color space. American Scientist, 53, 327-346.
- Conley, K., & Cooper, W. E. (1981). Conjoined ordering of color terms by children and adults. *Studies in Language*, *5*, 305-322.
- Holmes, J. (1992). An introduction to sociolinguistics. London: Longman.
- Jespersen, O. (1922). Language: Its nature, development and origin. London: Allyn and Unwin.
- Labov, W. (2001). Principles of linguistic change, II: Social factors. Oxford: Blackwell.
- Lakoff, R. (1975). Language and women's place. New York: Harper and Row.
- Ligon, E. M. (1932). A genetic study of color naming and word reading. *American Journal of Psychology*, 44, 103-122.
- Machen, V. (2002). Color naming by boys and girls. *Perceptual and Motor Skills*, 94(1), 348-350.
- Nowaczyk, R. H. (1982). Sex-related differences in the color lexicon. *Language and Speech*, 25(3), 257-265.
- Rich, E. (1977). Sex-related differences in color vocabulary. *Language and Speech*. 20(4), 404-409.
- Saucier, D. M., Elias, L. J., & Nylen, K. (2002). Are colors special? An examination of the female advantage for speeded color naming. *Personality and Individual Differences*, 32, 27-35.
- Simpson, J., & Tarrant, A. W. (1991). Sex- and age-related differences in color vocabulary. *Language and Speech*, 34(1), 57-62.
- Wardhaugh, R. (2002). An introduction to sociolinguistics. Oxford: Blackwell.
- Wolfson, N. (1989). *Perspectives: Sociolinguistics and TESOL*. Boston, MA: Heinle & Heinle.
- Woodworth, R. S., & Wells, F. L. (1911). Association tests. *Psychological Monographs*, 13(5), 1-85.
- 王卉(2005)。淺析現代漢語顏色詞的構成、分類及特點。語文月刊。民 101 年 4 月 23 日,取自: http://www.pep.com.cn/gzyw/xszx/ywzs/201008/t20100827\_772123.htm
- 李鑫、朱珠(2012)。對外漢語教學中漢語顏色詞的構成淺析。民 101 年 4 月 23 日,取自: http://www.hi138.com/?i372370

姚小平(1988)。基本顏色詞理論述評—兼論漢語基本顏色詞的演變史。外語教 學與研究,1,19-28。

# Appendix

# 顏色命名問卷調查

第一部份:			
系別:	年級:	性別:	日期:
	在空格中塡寫下		亨向您展示 25 張色卡,請依 「幫助您描述顏色,您可以想
家商店但是忘請問有沒有可以	了帶那件上衣,你 以搭配的褲子?	尔向店員詢問:「我」 」	· 來搭配這件上衣。你走進一 成已經買了一件的上衣, 就已經買了一件的上衣, :請勿與他人比較答案。*
1.		14.	
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11.	24.	
12.	25.	
13.		
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問卷結束。再次感謝您的配合參與!