

A COMPARISON OF THAI AND VIETNAMESE COLOR TERMS

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Thesis
Entitled

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COLOR TERMS**

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Ph.D., SOPHANA SRICHAMPA Ph.D.****ABSTRACT**

The main objective of this study was to analyze and compare Thai and Vietnamese basic and non-basic color terms as well as to find out whether and how gender and age affected non-basic color terms.

The data were collected from 60 Thai and 60 Vietnamese informants of both sexes in equal number. They were further divided into three age groups in each language: 15-29 years, 30-44 years and 45-60 years, and ten informants in each gender were selected from each age group.

The study finding revealed that there were 12 Thai basic color terms and nine Vietnamese basic color terms. According to Berlin and Kay's (1969) Basic color term evolution, the evolution of Thai and Vietnamese basic color term is at stage 7, but with some differences. The Thai evolution is in line with that of Berlin and Kay's while, for Vietnamese it both support and against the theory. According to the theory, green and blue/ dark blue are separated colors in Stage V, but it remain GRUE in Vietnamese, which includes green /blue/dark blue together. Furthermore, there is no orange color in Stage VII in Vietnamese as the theory states.

In the analysis of non-basic color terms, it is found that there are four types of non-basic color terms in both languages, They include (1) non-basic color terms derived from comparing, (2) from combining or modifying basic color terms, (3) from loan words, and (4) from non-basic color terms used for specific nouns. Regarding strategies informing non-basic color terms, it is revealed that both languages have four similar strategies. They are (1) combining basic color terms, (2) using words calling specific object as color terms, (3) modifying basic color terms, and (4) modifying non-basic color terms. However, Vietnamese has two more sub-strategies : (1) modifying non-basic color terms (basic color term + basic color term +modifier), and (2) modifying non-basic color terms (loan word + basic color term).

The analysis of social factors revealed that aged affected non-basic color term in Thai but did not in Vietnamese. Nevertheless, age differences affected the number of non-basic color terms in both languages.

KEY WORDS: COLOR TERMS / COLOUR TERMS / VIETNAM**166 P. ISBN 974-04-6074-7**

การศึกษาเปรียบเทียบคำเรียกสีภาษาไทยและภาษาเวียดนาม
(A COMPARISON OF THAI AND VIETNAMESE COLOR TERMS)

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บทคัดย่อ

วิทยานิพนธ์ฉบับนี้มีวัตถุประสงค์ที่จะศึกษา วิเคราะห์และเปรียบเทียบ คำเรียกสีพื้นฐานและคำเรียกสีไม่พื้นฐานของภาษาไทยและภาษาเวียดนามตลอดจนศึกษาว่าปัจจัยในเรื่องเพศและอายุ ส่งผลกระทบต่อคำเรียกสีไม่พื้นฐานหรือไม่อย่างไร

ข้อมูลที่ใช้ในการวิจัยครั้งนี้เก็บจากผู้บอกภาษาชาวไทย 60 คนและชาวเวียดนาม 60 คน โดยแบ่งเป็นเพศชายหญิง และในแต่ละภาษาแบ่งเป็น 3 ช่วงอายุ คือ 15-29 ปี, 30-44 ปี, 45-60 ปี เก็บข้อมูลช่วงอายุละ 10 คน

ผลจากการศึกษาพบว่าภาษาไทยมีคำเรียกสีพื้นฐาน 12 คำ ส่วนภาษาเวียดนามมีคำเรียกสีพื้นฐาน 9 คำ ตามทฤษฎีวิวัฒนาการการเกิดคำเรียกสีพื้นฐานของเบอร์ลินและเคย์ (Berlin & Kay 1969) อาจกล่าวได้ว่าคำเรียกสีพื้นฐานภาษาไทยและภาษาเวียดนามมีวิวัฒนาการอยู่ในระยะที่ 7 เหมือนกัน แต่มีความแตกต่างกันบางประการ คือ วิวัฒนาการการเกิดคำเรียกสีพื้นฐานของภาษาไทยมีความสอดคล้องกับทฤษฎีเบอร์ลินและเคย์ส่วนภาษาเวียดนามมีทั้งส่วนที่สนับสนุนและคัดค้านกล่าวคือ ในระยะที่ V ตามทฤษฎี สีเขียวและสีฟ้า/น้ำเงิน จะแยกออกจากกัน แต่ในภาษาเวียดนามยังคงเป็นคำเรียกสี GRUE อยู่ ซึ่งคำเรียกสีนี้ครอบคลุมคำเรียกสี เขียว/ฟ้า/น้ำเงิน และในระยะ VII ภาษาเวียดนามไม่มีคำเรียกสีสัมตามที่ทฤษฎีกล่าวไว้

ในการวิเคราะห์คำเรียกสีไม่พื้นฐาน พบว่า คำเรียกสีไม่พื้นฐานทั้งภาษาไทยและภาษาเวียดนามมี 4 ประเภท คือ 1. คำเรียกสีไม่พื้นฐานที่เกิดจากการเปรียบเทียบ 2. การประสมหรือขยายคำเรียกสี 3. คำยืมจากภาษาต่างประเทศ 4. คำเรียกสีไม่พื้นฐานที่ใช้กับนามเฉพาะ และในส่วนของกลวิธีในการสร้างคำเรียกสีไม่พื้นฐาน พบว่า ภาษาไทยและภาษาเวียดนาม มีกลวิธีในการสร้างคำเรียกสีไม่พื้นฐาน 4 กลวิธีที่คล้ายคลึงกัน คือ 1. การประสมคำเรียกสีพื้นฐาน 2. การใช้คำเรียกสีของเฉพาะเป็นคำเรียกสี 3. การขยายคำเรียกสีพื้นฐาน 4. การขยายคำเรียกสีไม่พื้นฐาน ในภาษาเวียดนามมีกลวิธีย่อยมากกว่าภาษาไทย 2 กลวิธีย่อย คือ 1. การขยายคำเรียกสีไม่พื้นฐาน (คำเรียกสีพื้นฐาน+ คำเรียกสีพื้นฐาน+คำขยาย) 2. การขยายคำเรียกสีไม่พื้นฐาน (คำยืมภาษาต่างประเทศ + คำเรียกสีพื้นฐาน)

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CHAPTER I

INTRODUCTION

1.1 RATIONALE

Everything in this world that is related to human beings has color as its composition. Human perception of color is through eyes vision. However, it depends on their interest, environment and experience of each person, culturally and traditionally, of each tribe. Names of color in each language reflect native speakers' worldview as cited in Craft (1972:431, quoted in Amara 1995:1)

“ Color categories provide a good illustration of how people throughout the world divide the color spectrum variously, and they provide further examples of taxonomic arrangement.”

The study of basic color terms is very interesting and is widely investigated. In terms of linguistic study, it was originally conducted by when Harold D. Conklin (Conklin 1955/1964), who studied Hanunóo color categories. (Hanunóo is used in Philippines.) From his study, it is found that the Hanunóo speakers classified colors into 4 types: dark color, light or white color, red color and green color respectively. Hanunóo color categorization differs from scientific color categorization, which classifies colors into saturation, lightness, and hue. From the study of Conklin, it can be summarized that each language does not have the same categories and the words for color terms might not be similar. After his work is published, some specialists over interpret his finding that each language in the world does not associate with each other and each language has its own characteristics.

After that Brent Berlin and Paul Kay (Berlin and Kay, 1969) conducted the research of basic color terms in order to testify that each language has different categorization of everything in the world and they do not necessarily share their categories of perception. They think that this definition is an overstatement, therefore, another research was carried out in order to prove their research. Berlin and Kay have interviewed native-speaking informants in each of twenty languages and state that

there are eleven foci points which are identical to English language. They also emphasize that the basic color terms found in this investigation do not occur accidentally. But all languages are relative to one another. Hence, the basic color terms is universal.

After studying the 20 languages and finding that basic color term is universal, they investigated 78 additional languages from various secondary sources they could find. From this additional evidence, they found that basic color terms have sequence of time and is universal. Berlin and Kay then propose the theory of the color category development and the definition of basic color terms. (See the detail in Chapter II)

After that there are a number of linguists who are interested in studying basic color terms and human color perception in order to verify Berlin and Kay theory. Their studies have been reviewed and presented in detail in Chapter II.

From the study of basic color terms, there are some linguists who have studied basic color terms of Southeast Asian languages. Suriya Ratanakul(1976) studies Sgaw Karen color categories, Kanchana Naksakul (2528*) studies Thai color terms, L.Thongkum, Theraphan (1985) studies Mlabri color terms, and studies Yao (Mien) color terms (2535), Pranut Witchurote (2529) studies basic color terms and perception of color of the speakers of the Thai dialect in Uttaradit(Tambol Na-in), Thailand, Suwilai Premsrirat (1991) study Khmu color terms, Amara Prasithrathsint (2538) conducts a comparative study of the Thai and Zhuang Kinship system and proposes that we should use basic color terms of Grey/Brown instead of brown in the sixth stage of Berlin and Kay basic color terms evolution(1993), Pratsaneeya Jarusan and Somruedee Dej-amorn (2537) study Hmong Njua color words, Thananan Trongdee (2541) studies Negroid Aslian (Sa-Kai) color words, Satanan Chua-Maharwan (2541) studies color terms and color perception of Tai Lue, Lua, Hmong and Karen speakers and Supamas Engchuan (2543) conducted a study of color terms and the concept of color of Thais in Sukhothai period and that of the present time.

Among all of the investigations of basic color terms as review above, there are only two research studies comparing basic color terms between languages.

* When the citation quoted with Buddhist Era please look for the reference written in Thai.

Amara Prasithrathsint (2538) carries out a comparative study of basic color terms and color perception between Zhuang and Thai. Satanan Chua-Maharwan (2543) studies the comparison of basic color terms and color perception between Thai Lue, Lua, Hmong and Karen. Regarding Amara Prasithrathsint's work it is a study of basic color terms in the same language family, that is, Tai family. As for the work of Satanun Chua-Maharwan, it is a comparison between languages in four different families, namely, Tai, Austroasiatic, Mong-Mien and Sino-Tibetan families.

In terms of relevance, it is found that Satanan Chua-Maharwan's work is related to the present investigation, since both are comparative studies of color terms in languages from different language families. This investigation focuses on basic color terms between Thai and Vietnamese. The study of the comparison of basic color terms between Thai and Vietnamese would enable us to understand the thought and worldview of Thai and Vietnamese people through basic color terms. Furthermore, it is expected that differences and similarities of color terms of each language would be revealed. In addition, there are few linguists who have studied this topic. Thus, it would be useful for gaining more data and understanding in this aspect. It is also believed that a comparative study of basic color terms of different language families, would help us see the trend of basic color terms in each language family in Southeast Asia.

1.2 OBJECTIVES OF THE STUDY

1.2.1 To analyze and compare basic color terms between Thai and Vietnamese

1.2.2 To analyze and compare non-basic color terms between Thai and Vietnamese

1.2.3 To analyze and compare the strategy of constructing non-basic color terms between Thai and Vietnamese

1.2.4 To compare basic color terms evolution between Thai and Vietnamese, according to Berlin and Kay

1.2.5 To find out whether gender and age of Thai and Vietnamese speakers influence the perception of color terms

1.3 BENEFITS OF THE STUDY

1.3.1 Realize basic color terms and non-basic color terms between Thai and Vietnamese

1.3.2 Realize the strategy of forming non-basic color terms between Thai and Vietnamese.

1.3.3 Understand the worldview of Thai and Vietnamese which are reflected from basic color terms.

1.4 SCOPE OF THE STUDY

1.4.1 Language

The emphasis of this study is on comparing basic color terms of standard Thai (Bangkok) with basic color terms of standard Vietnamese (Hanoi). The reason for collecting data of Thai as spoken in Bangkok and Vietnamese as spoken in Hanoi is that the varieties in both locations are regarded as official and standard, so that standardization of speaking could be maintained.

The data on basic color terms are collected from 120 native speakers, dividing into 60 Thai native speakers and 60 Vietnamese native speakers. Detail on gender and age of the language informants are shown in the following table.

The number of native-speaking informants				
Language	Thai		Vietnamese	
Age(years)	Male (persons)	Female (persons)	Male (persons)	Female (persons)
15-29	10	10	10	10
30-44	10	10	10	10
45-60	10	10	10	10

Table 1.1 The number of native-speaking informants

1.4.2 The field areas of the study

The areas of investigation, where the data are collected, include Metropolitan Bangkok and Hanoi. Data collection in Bangkok was from the end of March to the middle of July 2002 and in Hanoi from the end of July 2002 to January 2003.

1.5 HYPOTHESIS

1.5.1 Thai should have more basic and non basic color terms than Vietnamese.

1.5.2 Thai should have higher stages in the evolution of basic color terms proposed by Berlin and Kay theory than those of Vietnamese.

1.5.3 The strategy in forming non-basic color terms in Thai is different from that of Vietnamese.

1.5.4 Gender and age differences have impacts on the number of basic color terms and non-basic color terms of Thai and Vietnamese.

1.6 DEFINITION OF TERMS

1.6.1 Basic color terms means color terms which have the following characteristics;

1. It is monolexemic; that is, its meaning is not predictable from the meaning of its parts or the word which has no adjective phrase whether it has, after the adjective phrase is reduced, the meaning of the word do not change, for examples, the word “แดงเข้ม” /dɛ:ŋ.khêm/ in Thai can be deduced “khêm” and its main meaning unchanged which is “red.” Therefore, the word /dɛ:ŋ.khêm / is not basic color terms.

2. Its signification is not included in that of any other color term, for example, the word “สีทองอ่อน” / sǐ:.tɔ:ng.ʔò:n/ in Thai is a kind of green.

3. It must be psychologically salient for native speakers. Indices of psychological salience include, among others, a tendency to occur at the beginning of

elicited lists of color terms, stability of reference across informants and across occasions of use and occurrence in the ideolects of all informants.

4. Its application must not be restricted to a narrow class of objects.

5. When any color term was in doubt whether it was a basic color term or not, a syntactic framework was employed to prove. If such a term could occur syntactically like other basic color terms, it was considered a basic color term. For instance, /nám.ta:n/ in Thai was in doubt. When proved, it was found that it can modify the noun /ka:ŋ.ke:ŋ/ 'trousers', as in /ka:ŋ.ke:ŋ nám.ta:n/ 'brown trousers'. It can function like term /khǎ:w/ 'white'. Therefore /nám.ta:n/ is categorized as a basic color term in Thai.

If any color word possesses these 5 characteristics, it will be categorized as basic color terms

1.6.2 Non-basic color terms means color terms which possess no or some of the four characteristics above.

1.6.3 Standard Thai Language is the variety designated as an official language and used in education and communication.

1.6.4 Standard Vietnamese Language is the variety designated as an official language and used in education and communication.

CHAPTER II

LITERATURE REVIEWS

2.1 DOCUMENTS AND RESEARCH STUDIES RELATED TO BASIC KNOWLEDGE OF COLOR TERMS.

2.1.1 Basic Color Terms : Their Universality and Evolution

Berlin and Kay (1969) conduct a research on basic color terms in order to prove that each language is semantically arbitrarily relative to every other language. They suspect that this allegation of total arbitrariness in the way languages segment the color space is a gross overstatement.

According to this view, the data were collected from native-speaking informants in each of twenty languages from a number of unrelated language families. The material used in collecting data is a color chart provided by the Munsell Color Company. The data were gathered in two stages.

First, the basic color words of the language in question were elicited from the informant. Secondly, each subject was instructed to map both the focal point and the outer boundary of each of his basic color terms on the array of the Munsell color chart.

From the result, the boundary of each color could be identified, that is, which color chips can be defined as each basic color. For instance, which color chips could be mapped in the basic color term “red.”

Berlin and Kay state that there are eleven foci points which are identical to those of the English language. They also emphasize that the basic color terms found in this research do not accidentally occur. But each language is relative to every other language. Hence, basic color term is universal.

After the study of 20 languages and finding that basic color term is universal, they investigated 78 additional languages from various secondary sources. From this additional evidence, it is found that basic color terms have sequence of time

in addition to universality. Then, Berlin and Kay (1969) propose a theory of basic color term evolution, which contains seven stages as follows;

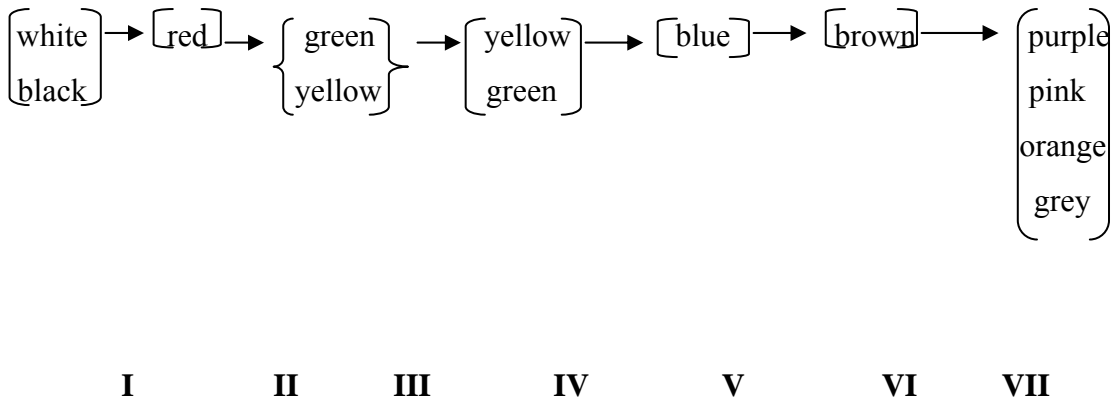


Diagram 2.1 A theory of basic color term evolution of Berlin and Kay (1969)

Stage I All languages contain terms for white and black. (two terms)

Stage II If a language contains three terms, then it contains a term for red. (white, black and red)

Stage III If a language contains four terms, then it contains a term for either green or yellow (but not both). (white, black, red, green or white, black, red and yellow)

Stage IV If a language contains five terms, then it contains a term for both green and yellow. (white, black, red, green and yellow)

Stage V If a language contains six terms, then it contains a term for blue. (white, black, red, green, yellow and blue)

Stage VI If a language contains seven terms, then it contains a term for brown. (white, black, red, green, yellow, blue and brown)

Stage VII If a language contains eight or more terms, then it contains a term for purple, pink, orange, grey, or some combination of these. (white, black, red, green, yellow, blue, brown, purple, pink, orange and grey)

Moreover, They devise another proposal indicating that each basic color term should exhibit the following four characteristics:

- It is monolexemic; that is, its meaning is not predictable from the meaning of its part. For instance in English, red is basic color term while redish is not.

- Its signification is not included in that of any other color term. For instance dark green is not basic color term because it is a kind of green for most speakers of English.

- Its application must not be restricted to a narrow class of objects, such as, blonde which may be predicated only of hair and furniture.

- It must be psychologically salient for informants. Indices of psychological salience include, among others, a tendency to occur at the beginning of elicited lists of color terms, stability of reference across informants and across occasions of use and occurrence in the ideolects of all informants

The above criteria suffice in nearly all cases to determine the basic color terms in a given language. The few doubtful cases that arise are handled by the subsidiary criteria:

- The doubtful form should have the same distributional potential as the previously established basic terms. For example, in English, allowing the suffix *-ish* is allowed to follow basic color term but crimson is not.

- Color terms that are also the name of an object characteristically having that color are suspect, for example [tɔːŋʔɔːn] in Thai

- Recent foreign loan words may be suspect.

- In cases where lexemic status is difficult to assess, morphological complexity is given some weight as a second criterion. The English term blue-green might be eliminated by the criterion.

(Berlin and Kay 1969:2-3,6-7)

In 1975, Paul Kay (Quoted in Amara 1995:12-19) has considered and reviewed the theory that he has already proposed in 1969. After finding more evidences, Paul Kay changes some details, that is, in some languages, a color term “green” is included of blue/dark blue color. For examples, a term ‘ao’ in Japanese, “wingka” in Aguaruna, “yas” in Tzeltal, “tugu-” in Eskimo and “wiwi” in Futunese. The new chart showing the sequences of the occurrence is shown as follows:

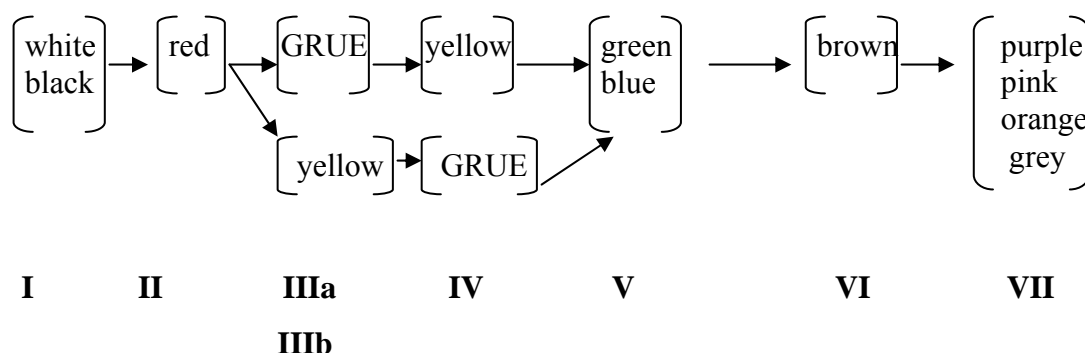


Diagram 2.2 A theory of basic color term evolution edited by Paul Kay (1975)

Paul Kay has described the above chart as follows:

At the first stage, white and black are found. In terms of white color, it includes real white, all kind of light colors and hot colors ,such as, red and pink. For black color, it means real black, dark brown, purple and others except light green and blue.

At the second stage, red color is inclusive of every hot color and it is derived from white color, which is contrastive to Berlin and Kay's 1969 proposal, which states that it is developed from black and white.

At the third stage, it is possible that yellow has occurred after red color (IIIb) or GRUE (Green+ Blue= GRUE, which includes green, blue and dark blue together) may have occurred (IIIa)

At the fourth stage, yellow has occurred following the IIIa stage and GRUE has occurred following the IIIb stage.

At the fifth stage, green and blue have been separated from each other.

However, the sixth and seventh stages are similar to those of the first proposal.

2.2 DOCUMENTS AND RESEARCH STUDIES RELATED TO COMPARATIVE STUDY OF COLOR TERMS.

2.2.1 Amara Prasithrathsint (1992) studied color terms and the color perception of Thai and Zhuang. Her study involved 6 dialects of Zhuang which were Zhuangchongwa, Zhuangterpao, Zhuangsinchiengyongning, Zhuangauthangyong

ning, Zhuangthientong and Zhuangnantan and 4 dialects of Thai which were Bangkok-Thai, Chiang mai-Thai, Nakhornrajchasrima-Thai and Nakhonsrithammaraj-Thai. The data were collected from one informant per each dialect and the material used was a color chart which contained 217 colors provided by Graft-G Process Color Chart.

Her criteria for categorizing basic color terms included:

1. It was a word of a single lexical entity.
2. It must not be a word of specific shade that might be categorized under other colors.
3. It must have distinguished and stable meaning.

The findings revealed that the six Zhuang dialects, namely, Zhuangchongwa, Zhuangterpao, Zhuangsinchiengyongning, Zhuangauthangyong ning, Zhuangthientong and Zhuangnantan, had 8,9,7,7,10 and 9 basic color terms respectively. Basic color terms shared by six dialects included white, black, red, yellow, green and blue/dark blue. However grey, brown and purple were found only in some dialects. For the four Thai dialects, Bangkok and Chiang mai had 12 basic color terms, Nakhonrajchasrima 11 and Nakhonsrithamaraj 10. The basic color terms shared by all four dialects were white, black, yellow, green, purple, and orange. However, blue, dark blue, grey, brown and pink were found only in some dialects.

Besides, Zhuang and Thai have the same strategies of forming non-basic color terms:

1. Combining one color term with another color term
2. Combining a color term with a modifier
3. Using the name of specific objects as non-basic color term

As mentioned above, the first strategy is the most popular for Zhuang and the third strategy is the least popular. On the contrary, the first strategy is the least popular in Thai and the second and the third are the most popular.

Regarding the color perception of the informants, it is found that there is not much different in perceiving the focus points of colors. Moreover, the stability of Thai and Zhuang's perception of color is different it can be summarized that white and yellow are the most stable in terms of color perception of both Zhuangs and Thais.

Furthermore, Prasithratsint (1993) further proposed that we use basic color terms of grey/brown instead of brown in the sixth stage of Berlin and Kay scale

because from her finding in Thai and Zhuang, grey and brown were not distinctly separated. It was thus proposed that grey/brown should come first before the existence of grey and brown.

2.2.2 Satanan Chua-Maharwan (1998) investigated color terms and color perception of Tai Lue, Lua, Hmong and Karen speakers in Chiangrai and Phayao. The data are collected from 40 female informants whose ages are between 30-45 years old and are divided into 10 informants of each language. The elicitation of color terms is done by using 208 color cards*.

The result is shown in the following table:

Language	Number of basic color terms	Color term Evolution** (Stage)	Basic color terms
Tai Lue	12	7	/k ^h aw44/ “white” /dam34/ “black” /dæŋ33/ “red” /lɤŋ33/ “yellow” /kheew34/ “green” /nam21ŋɤn32/ “dark blue” /faa21/ “blue” /nam21taan33/ “brown” /moon33/ “purple” /ʔɔɔn44/ “pink” /sum23/ “orange” /t ^h aw 43/ “grey”
Lua	5	5	/pah/ “white” /ɲam/ “Black” /ɕo/ “red” /lian/ “yellow” /ri:t/ “green”
Hmong	6	5	/kləi45/ “white” /klu45/ “Black” / la45/ “red” /klaŋ/ “yellow” / ⁿ dzua45/ “green” /paŋ41jeŋ45/ “pink”
Karen	5	4	/kua/ “white” /su/ “black” /ɣɔ/ “red” /bo/ “yellow” / la/ “GRUE”

Table 2.1 Basic color terms of Tai Lue, Lua, Hmong, Karen

* The color cards are from color charts in the books, titled Color I and Color II of Karade Shobou, which devised Ikuyoshi Shibukawa and Yumi Takahashi (1994)

** Basic color term evolution is based on Berlin and Kay (1969)

It is found that these four languages have different strategies in forming non-basic color term. They include:

1. Combining one color term with another color term
2. Combining a color term with an adjective as a modifier
3. Using specific objects as color terms

As mentioned above, in Tai Lue, Lua and Hmong, non-basic color terms are mostly formed by the second strategy except on Karen where the first strategy is mostly used. The third strategy is not popular.

Regarding color perception and attitude toward colors, there is no significant difference among Tai Lue, Lua, Hmong and Karen speakers in perceiving the foci point of every color category. In comparison with the other colors, green seems to be very well perceived.

These ethnic groups have a positive attitude towards vivid and bright colors and have a negative attitude towards light and subtle colors.

2.3 DOCUMENTS AND RESEARCH STUDIES RELATED TO THE HISTORICAL COLOR TERMS.

2.3.1 Supamas Engchuan (2000) studied color terms and the concept of color of The Thais in Sukhothai period and at the present time. The methods of collecting data are divided into 2 parts as follows:

1. Collecting data of color terms in Sukhothai period from literary works at that period
2. Collecting data of color terms at the present time from
 - Poetic and non-poetic literatures
 - Interviewing 10 male and 10 female informants' aged between 30-45 years old

This research reveals that Thai color terms in Sukhothai period contain five basic color terms, which are white, black, red, yellow and green. (Arranging in sequence proposed by Berlin and Kay)

On the contrary, Thai color terms of the present time contain 12 basic color terms, which are white, black, red, yellow, green, blue, dark blue, brown, purple, pink, orange and grey. (Arranging in sequence proposed by Berlin and Kay)

Therefore, Thai basic color terms between these two periods are at different stages in the evolution of basic color terms. In Sukhothai period, the evolution is at the fourth stage while that the present time is at the seventh stage, based on the evolution of basic color terms proposed by Berlin and Kay.

Moreover, the strategies in forming non-basic color terms are similar in both periods.

1. Combining one basic color term with another color term
2. Using the name of specific objects as color term
3. Combining a basic color term with a modifier
4. Combining a non-basic color term with a modifier

Nowadays, there are more strategies in combining basic color terms with the name of specific objects as modifiers with or without a conjunction, and modifying the name of specific objects with adjectives of size.

From the analysis of focus point, it is found that the meaning of basic color terms has been changed from Sukhothai period to the present. For example, the color term “green” in Sukhothai period has broader meaning than that of the present time. The term “green” in Sukhothai period includes purple and dark blue hues as the evidence of “green” like “dok un chan” [dò:k.ʔan.tɕhan], “khiew dang dok intanin” [khǐəw.daŋ.dò:k.in.tháʔ.nin] and “khiew dang dok phak top” [khǐəw.daŋ.dò:k.phàk tòp], while the terms “purple” and “dark blue” are basic color terms at the present time.

2.4 DOCUMENTS AND RESEARCH STUDIES RELATED TO COLOR TERMS OF EACH LANGUAGES IN SOUTH EAST ASIA.

2.4.1 Suriya Ratanakul (1976) studied Sgaw Karen color categories.

The data are collected from Sgaw Karen in the Northern provinces of Thailand. The researcher used many existing colored objects available in nature, such

as, flowers, stones, plants, and the weaving techniques of the woman and beads are used to interview the informants.

From the study of Sgaw Karen color perception, there are 6 basic color terms as follows:

/ wa /	“white”
/ su/	“black”
/yɔ/	“red”
/bɔ/	“yellow”
/la/	“GRUE”
/liʔ/	“Purple”

Moreover, the strategies of forming non-basic color terms of Sgaw Karen are as follows:

1. Combining one local color term with another local color term
2. Combining a basic color term with an adjective of darkness or paleness as a modifier

Sgaw Karen's is at the sixth stage of basic color term evolution based on Berlin and Kay's theory. However, Karen's evolution is different from Berlin and Kay's at the sixth stage in that it contains the term for purple instead of blue while Berlin and Kay's stated that purple color would not occur in language unless that language had eight or more basic color terms.

Furthermore, it is found that the color term GRUE does not separate green and dark blue but it has purple instead.

2.4.2 Kanchana Naksakul (1985) presented a result of the study of Thai color terms.

The objective of this work is to arrange the types of Thai basic color terms and investigate the color terms that reflect Thai culture. From this study, it is found that there are four types of Thai color terms as follows:

1. Basic color terms: white, black, red, yellow, green, purple and orange

2. Comparative color terms: the terms are analogous to colors of local flowers, fruits or plants such as *sǐ:dò:k.tàʔ.bè:k*, *sǐ:dò:k.kan.níʔ.ka:*, *sǐ:kâ:n.máʔ.líʔ*, *sǐ:dò:k.lû:k.wâ:*, *sǐ:plǐæk.man.khút*, *sǐ:dò:k.law*, *sǐ:-tə:ŋ.ʔò:n*, *sǐ:tɕha:*

3. Loan color terms from other Languages: coco, tan, kaki, oak, mustard, old rose and cherry.

4. Archaic color terms: the terms are analogous to objects existing in the old days such as *sǐ:kàʔ.liəw*, *sǐ:khrâŋ* (lac), *sǐ:châ:t*, *sǐ:roŋ* (a gamboges tree), *sǐ:sě:n* (cinnabar), *sǐ:máʔ.phû:t* (garcinia velersiana), *sǐ:sàʔ.wà:t* (Sawat seed).

As mentioned above, it shows Thai culture and experience reflect in Thai color terms, which means that Thais love nature, flowers, fruits, plants and animals. As a result, the name of Thai color terms are related to trees, flowers, animals, minerals and objects in nature.

2.4.3 Theraphan L. Thongkum (1985) studied Mlabri color terms.

The data are collected from Mlabri informants living in Nan province from 1983 to 1985. The investigation reveals that Mlabri has four basic color terms:

/balak/ “white” means light colors ,such as, white color, egg color, ivory color, pink, blue, light grey, light purple and skin color.

/thuwek/ “black” means dark colors ,such as, black, brown, dark blue, green horse’s dung color, and dark grey.

/bənliŋ/ “red” means hot colors ,such as, red, reddish orange, orange, yellow

/leŋ/ “GRUE” means green, dark blue and color of Karawek bird’s egg.

2.4.4 Pranut Witchurote (1986) studied basic color terms and perception of color of the speakers of the Thai dialect in Tambol Na-in, Phichai District, Uttaradit province.

The data collected from 120 native-speaking informants by age, sex and occupation of the informants. The material used is a color chart of Munsell Company. The result of this study is that there are 33 color terms in a lexicon of all informants

and it can be arranged from the most popular color to the least popular as shown in the following table:

Percentage	Color terms
Over 90%	white, green, yellow, red
Over 70%	black , pink, blue, dark blue, orange
Over 50%	color of Maprian plum pit, color of Banyen flower, color of dry betel nut lime /pu:n.hêŋ/, color of young banana leaf, color of pig's blood, purple
Less than 50%	grey, horse's dung green color, cassumunar ginger /plaj/ brown, kaki, reddish yellow /sɛ:d/, duck's head green color
Less than 10%	color of burnt sugar, curcuma color

Table 2.2 Color perception of Thai dialect in Tambol Na-in

It shows that the number of color terms is different among the informants who are different in sex, age and occupation. The significant difference is at the 0.05 level.

In terms of color perception, it is found that differences of sex, age and occupations of the informants reflect different perceptions of colors, with women having more correct perception of color than men. The informants aged between 30-44 years old have the best perception of color. The second is the informants whose ages are between 15-29 years old, 45-59 years old and 60-74 years old respectively. Regarding occupation, the farmers have been found to have the best perception of color, followed by specialists and sellers.

However, the researcher finds that all informants have the stable perception of the colors “white” and “yellow”.

2.4.5 Suwilai Pramesrirat (1991) studied Khmu color system and its elaborations.

Khmu has been spoken in Chiengkong district and some villages of Wiengkaen district of Chiangrai Province. Specific objects in the nature and artificial

surroundings ,such as, a color chart and a set of color pencils are used to collect the data.

From this study, it is found that there are 11 basic color terms and they can be classified into two main groups:

Firstly, there are five primary color terms:

/klɔ:k/	“white”
/hiɛŋ/	“black”
/jim/	“red”
/cɲár/	“GRUE”
/liəŋ/	“yellow”

Secondly, there are six secondary color terms:

/ju:t/	“darkness”
/siór/	“reddish”
/pri:c/	“brownish”
/pə:l/	“reddish, pinkish or purple”
/lɔ:c/	“yellowish or greenish”
/klɔ:k/	“greyish or purple”

Khmu has three strategies in forming non-basic color terms:

1. Combining one basic color term with another color term
2. Combining a basic color term with non-basic color term
3. Combining a non-basic color term with another non-basic color term

Khmu basic color terms are at the fourth stage of basic color terms evolution based on Berlin and Kay’s theory. It is further noticed that Mon Khmer languages, such as, Northern Khmer, Praj, So, Kui and Vietnamese have the color term “GRUE” and yellow color is obviously a Thai loan word.

2.4.6 Theraphan L. Thongkum (1992) investigated Yao (Mien) color terms.

The data are collected from 6 Yao villages as follows:

1. Ban Kew Tum, Tambol Pongtao, Ngao district, Lampang province.

2. Ban Pa Klang (Huay Sanow), Tambol Silalaeng, Pua district, Nan province
3. Ban Mai Pangkha, Tambol Phachangnoi, Pong district, Phayao province
4. Ban Huay Mae Sai, Tambol Maeyao, Muang district, Chiangrai province
5. Ban Khun Mae Bong (kao), Tambol Pongnoi, Maechan district, Chiangrai province
6. Ban Khun Mae Bong (mai), Tambol Pongnoi, Maechan district, Chiangrai province

There are 48 native-speaking informants whose ages are between 20-30 years old and there are eight people from each village. The material used is a color chart of Graft-G Process color chart.

From this study, it is found that there are six Yao basic color terms:

/peʔ21/	“white”
/ciaʔ45/	“black”
/siʔ45/	“red”
/jaŋ31/	“yellow”
/meŋ33/	“green”
/bua454/	“dark blue”

There are three strategies in forming non-basic color terms:

1. Combining one basic color term with another basic color term
2. Combining a basic color term with a noun
3. Combining a basic color term with an adjective/adverb

As mentioned above, the first strategy is most popular used and the second and the third strategies are less frequently used.

Yao basic color term evolution is at the fifth stage and there are 6 basic color terms. However, the result of this research is not in line with Berlin and Kay theory in that any language evolving to stage sixth should have seventh basic color terms and the seventh term should be “brown”. On the contrary, the term “purple” has occurred in Yao instead.

Yao has a positive attitude towards vivid colors and has a negative attitude towards light and dull colors. They also have a good attitude towards darkness more than paleness.

2.4.7 Pratsaneeya Jarusan and Somruedee Dej-amorn (1994) investigated Hmong Njua color terms.

The data are collected from Ban Phapujom, Moo. 6, Tambol Gudchang, Mae Taeng district, Chiangmai province. There are 20 native-speaking informants and the material used is a color card. From this research, it is found that Hmong Njua has sixth basic color terms:

/kləi45/	“white”
/klu45/	“black”
/la45/	“red”
/klaŋ41/	“yellow”
/ ⁿ dzua45/	“green”
/sa35/	“dark blue”

In Hmong Njua, there are fourth strategies in forming non-basic color terms:

1. Combining one color term with another color term
2. Combining a color term with an adjective/adverb
3. Combining one color term with another color term that refers to nature or creatures
4. Using reduplicated

2.4.8 Thananan Trongdee (1998) studied Negroid Aslian (Sa-Kai) color words.

He has studied in Sa-Kai groups who live in Tambol Rae, Tharn-to district, Yala province. Mrs. Supaporn Sritharnto is the main speaking informant (uncertain of age). The material used is a color chart devised by Siam Graphic Agency Company limited. There is a set of 220 hues. From this study, this Sa-Kai group has sixth basic color terms:

/pəl.tau/	“white”
/bəl.tɛk/	“black and the darkness of other colors”
/pə.huŋ/	“very red, brightly red”
/ta.hoŋʔ/	“reddish, pink, orange and light purple”
/hər.ʔɔi/	“yellow and yellowish”
/bəl.ʔuñ/	“green, light dark blue, blue”

Moreover, it is found that Sa-Kai does not have non-basic color terms and no specific color terms. The interesting thing is that Sa-Kai has two color terms for “red”:

- One is used for brightly red color. /pə.huŋ/
- The other is used for reddish or any color that has red color mixed in it. /ta.hoŋʔ/

Forming color terms of Sa-Kai language is related to their lifestyle, culture and phenomenon around them.

2.4.9 Kriengkrai Wattanasawat (เกรียงไกร วัฒนาศาสตร์, 2002) studied the reflection of Vietnamese attitude on color terms.

The data are collected from 4 Northern Vietnamese women whose ages are between 25-35 years old. The materials used in collecting the data are 85 color cards.

From this study, it is found that there are 10 basic color terms of Northern Vietnamese.

trắng	“white”
đen	“black”
đỏ	“red”
vàng	“yellow”
xanh	“GRUE”
nâu	“brown”
tím	“purple”
hồng	“pink”

da cam	“orange”
xám	“grey”

Northern Vietnamese color terms Evolution is at the sixth stage based on Universality and basic color terms Evolution of Berlin and Kay.

There are three strategies in forming non-basic color terms:

1. Combining a basic color term with a modifier
2. Using the name of specific objects
3. Combining one basic color term with another basic color term or the name of specific objects

The frequency of the strategy in forming non-basic color term is found that the third strategy has the highest frequency, at 42%, and the second strategy has the lowest frequency, at 11%.

From previous investigations on color terms, it can be seen that most of them focused on one particular language. Nevertheless, comparative studies of color terms between languages of the same or different families were relatively few. It is thus interesting to conduct a comparative study on color terms in Thai of Tai family and Vietnamese of Austroasiatic family. The findings may yield some significant benefits to those interested in the field.

CHAPTER III

MEDTHODOLOGY

The research methodology of studying the comparison of basic color terms between Thai and Vietnamese is divided into 4 parts, which are preparation, data collection, data analysis and summary of results. More details are shown as follows;

3.1 PREPARATION

3.1.1 Reviewing related literatures

Literature reviews related to this study contain the following topics;

The knowledge of basic color terms

The previous research studies in basic color terms of languages in Southeast Asia

- The study of color terms in languages
- The study in the comparison of color terms
- The study in history of color terms

3.1.2 Preparing instruments used in collecting data

There are 6 materials used in conducting the research, which are eyesight testing card, color chart, color card, color pencil, silk, cotton thread and record form. These research instruments are shown as follows;

Eyesight testing card

This research is concerned with the vision and color perception of the informants, all informants must have normal eyesight and do not have colorblindness. Hence, eyesight testing is conducted with the informants by using color testing cards which the ophthalmologists normally use to check people in general in order to find out whether they have colorblindness. There are 6 cards and each card is attached with a cardboard 3 x 2.5 inches in size for keeping them durable. Then testing with informants. The picture of the card is shown as follows:

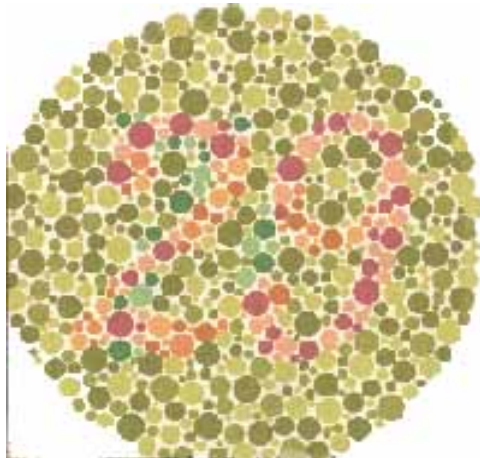


Figure 3.1 Color blindness testing card

From the above picture, if the informants have normal eyesight, they can see the number “29”. On the contrary, if they have abnormal eyesight, they will see another number instead of “29”.

Color Chart

In collecting the data, a color chart is used. The chart is modified from HTML color chart and contains of 216 color chips. The reason why this chart is used because it covers all sets of chips. Moreover, this chart is used to compare the colors in printing. Besides, it also has a code indicating the ratio of hues which is marked on each sheet. As the HTML Color Chart is big, it is not convenient to carry and might be damaged. As a consequence, the chart modified by dividing into 6 parts and each part is attached to the A4 size cardboard. There are 6 cardboards and each cardboard consists of a set of 36 color chips. The reason for dividing the chart is that the same sets would be used with all the informants and it is convenient to carry and store them. The sample picture of the chart is shown as follows:

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300
#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000

Figure 3.2 Sample of the color chart

Color Card

The color card is derived from HTML chart, but each card contains only one color chip attached to a cardboard 1.5x1.5 inches in size. The color code is at the back of the cardboard as a guideline for interpreting the color as shown in the following sample pictures:

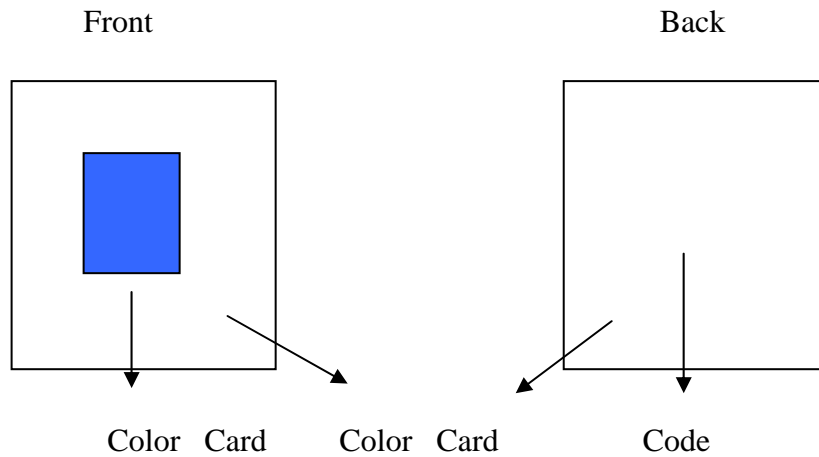


Figure 3.3 Sample of color card

Color Pencil

The colleen color pencils produced by B.K.L. company limited are chosen to get additional information about colors besides what have already existed in the color chart and color cards. There are 60 color chips and they could be bought at a stationery store.



Figure 3.4 Research instrument (color pencil)

Silk and Cotton thread

Silk and cotton yarns produced by Venus Company available at general markets are also used to obtain additional data on colors different from those existing in the color chart, color pencils. Silk and cotton thread consist of 24 color chips. Moreover, other materials available at hand where eliciting the data are also used to get as much information about color from the informant as possible.



Figure 3.5 Research instrument (Silk and Cotton thread)

Record Form

The writing record is divided into 2 parts. The first part is the record of personal information of the informants ,such as, name, surname, age, gender and education. The second one is relevant information deriving from questioning and speaking with the native-speaking informants.(The samples is shown in Appendix I)

3.2 DATA COLLECTION

3.2.1 Selecting the native-speaking informants

Thai language

Sixty native-speaking informants are selected, dividing into 30 male and 30 females. There are 10 informants whose ages are between 15-29 years old, 10 informants whose ages between 30-44 years old and 10 informants whose ages between 45-60 years old. Moreover, each informant must not have colorblindness. Since this study is concerned with optical vision of the informants, they must have a normal eyesight and have to speak standard Thai or use official Thai language in their daily life.

Vietnamese language

Likewise, sixty native-speaking informants are selected, dividing into 30 male and 30 females. There are 10 informants whose ages are between 15-29 years old, 10 informants whose ages between 30-44 years old and 10 informants whose ages between 45-60 years old. Moreover, each informant must not have colorblindness. Since this study is concerned with optical vision of the informants, they must have a normal eyesight and have to speak standard Vietnamese or use official Vietnamese language in their daily life.

3.2.2 Areas of investigation

Two locations chosen as the areas of data collection were Bangkok of Thailand and Hanoi of Vietnam respectively.

3.2.3 Data collection period

Initially, Thai data are collected, beginning from the end of March to the middle of July 2002 with a total of four months. As for Vietnamese, the researcher was granted a scholarship from the Southeast Asian Studies Regional Exchange Program [SEASREP] to study Vietnamese and collect the data on Vietnamese in Hanoi, Vietnam from July 2002 until January, 2003 for a period of six months.

3.2.4 Procedure

Primarily, the informants were asked general questions in order to establish personal rapport between the informants and the researcher. After that they were informed of a tentative objective of this research and asked for their willingness for being informants because they had to spend a long period of time in the interviews. Then, all informants must be tested for condition of their eye sights. If they had nothing wrong with their eyes, the data collection process began. Firstly they were asked for their personal information and then were shown color chart, color cards and other materials to elicit the required data. During the elicitation of the data, time was not limited to the informants, all depending on their convenience. They might have half an hour one day or/and one our another day for providing the data. During the interview, their expressions would be observed to see whether they become tired. If they did, a break was taken and small talks would come between before inquiries about color resumed. If insisted despite their being tired, data obtained might not be in line with what actually was. In Thai, they were asked the question, /sǐ.ní.si.ǎ.ǎ.raj.khá?/ “ what color is this?”. In Vietnamese, the informants were asked the question, /màu.này.là.màu.zì:/ “what color is this?”. After the informants told of the color terms, the information was written down in the record form and analyzed respectively. After the researcher has questioned the color terms from many equipments, the researcher also asked the informants whether they had any other colors. If the informants add more color terms, the researcher would record in the record form and then bring all data to analyze. Conversations with the informants were recorded in the tape recorder with their permission, which would later be rechecked and analyzed.

The investigation reveals that using a color chart may not yield exactly natural color terms because the shades are ranked from light to dark. When the informants were told to identify the color, most of them could identify the main colors while using modifiers like “light” or “lighter” for nearby shades. When color cards were used, they could identify the exact colors better than using the color chart. It is thus recommended that color cards or real objects be used instead of color chart in order to obtain more natural colors.

3.3 DATA ANALYSIS

3.3.1 Analyzing Thai and Vietnamese basic color terms

All the data collected were then analyzed to find out which ones were basic color terms. The terms analyzed must be unanimously identified by at least five informants. Each term was considered whether and how it was in accordance with the five criteria. If it was in line of five criteria, it was regarded as a basic color term in that particular language. The five criteria was composed of the following qualifications.

1. It is monolexemic; that is, its meaning is not predictable from the meaning of its parts
2. Its signification is not included in that of any other color term such as “สีตองอ่อน” /sǐ:tɔŋ.ɔ̀n/ in Thai is a kind of green.
3. It must be psychologically salient for native speaker. Indices of psychological salience include a tendency to occur at the beginning of elicited lists of color terms, stability of reference across native speaker and across occasions of use and occurrence in the ideolects of all native speakers.
4. That color term should not be used for narrow meaning in which it is used for some specific objects. For example, a term “blond” in English is not a basic color term because it is used for hair and furniture only
5. When any color term was in doubt whether it was a basic color term or not, a syntactic framework was employed to prove. If such a term could occur syntactically like other basic color terms, it was considered a basic color term. For instance, /nám.ta:n/ in Thai was in doubt. When proved, it was found that it can modify the noun /ka:ŋ.ke:ŋ/ ‘trousers’, as in /ka:ŋ.ke:ŋ nám.ta:n/ ‘brown trousers’. It can function like term /khǎ:w/ ‘white’. Therefore /nám.ta:n/ is categorized as a basic color term in Thai.

If the color words meet the 5 criteria, they would be categorized as basic color terms. The basic color terms are then compared between the two languages for their similarities and differences.

3.3.2 Analyzing and comparing non-basic color terms

If the color terms contain some or none of the above criteria, they would be classified as non basic color terms. The non basic color terms are then categorized into group of different aspects in the two languages

Comparing the types of non-basic color terms of both languages.

After that, a comparative study is carry out to see whether differences in languages, genders and ages would reflect in the numbers of non-basic color terms.

3.3.3 The analysis and a comparison of color terms evolution

After the basic color terms of Thai and Vietnamese have been analyzed, the stage of basic color terms evolution between Thai and Vietnamese would be investigated and compared to find out the stages of basic color words of those two languages, based on the theory of the Universality and Evolution of basic color terms devised by Berlin and Kay (1969).

3.3.4 The analysis and comparison of the strategy of forming non-basic color terms

This part analyzes the strategy of forming non-basic color terms of Thai and Vietnamese based on linguistic methods by considering their structures in both languages.

The aim is to compare whether there are any differences of the strategies and whether differences of languages, genders and ages reflect those difference or not and how.

3.4 WRITING A SUMMARY AND REPORT OF THE RESEARCH FINDINGS

After having finished the analysis of all the topic in 3.3, the findings are presented and summarized as well as recommendation are made.

CHAPTER IV

THAI COLOR TERMS

In this chapter, the presentation of the research results on Thai color terms will cover the following 4 topics.

1. Basic color terms in Thai
2. Non-basic color terms in Thai
3. Development of Thai basic color terms

4. Strategies in creating Thai non-basic color terms and statistical analysis results to find out whether and how gender and age affect the number of non-basic color terms.

The data were collected from 60 Thai native speaker who reside in Bangkok and use standard Thai in daily communication. They were divided into 30 males and 30 females. As for age, they were categorized into three age groups: 15-29 years, 30-44 years, 45-60 years and ten informants were selected to represent each age group.

4.1 BASIC COLOR TERMS

The result of the data analysis reveals that there are 12 Thai basic color terms, which could be detailed as follows:

[khǎ:w]	‘ white ’
[dam]	‘ black ’
[dɛ:ŋ]	‘ red ’
[khǎw]	‘ green ’
[lǎŋ]	‘ yellow ’
[fá:]	‘ blue ’
[námməŋ]	‘ dark blue ’
[námta:n]	‘ brown ’

[mûəŋ]	“purple”
[tɕhompʰu:]	“ pink”
[sôm]	“ orange”
[thaw]	“ grey”

The word “ Pink” in Thai is derived from a loan word “jambu” (means the rose apple tree) in Sanskrit (Monier Monier Willam : 1976). However, in this investigation, the term is regarded as a basic color term because it is psychologically salient among the Thai native speakers and they are able to identify the color very well. Moreover, it can occur syntactically like other basic color terms, such as, /sǐə.dɛ:ŋ/ ‘red shirt/blouse’ and /sǐə.chompʰu:/ ‘pink shirt/blouse’.

The color terms [námŋəŋ] “dark blue” , [námta:n] “brown” and [tɕhompʰu:] “pink” are not single syllables. Nevertheless, these two-syllable words are unique in their meaning and cannot be separated into independent entities. Moreover, they are not compound words. Therefore, these three words are defined as Thai basic color terms. Additionally, the color terms [fá:] “blue” , [námta:n] “brown” and [sôm] “orange” share the same meaning of the name of specific objects on which the words [thó:ŋfá:] “sky” , [námta:n] “sugar” and [sôm] “orange” are based respectively. However, they are prominently terms in informants’ feeling and most of them can clearly separate [fá:] “blue” from [námŋəŋ] “ dark blue” and [námta:n] “brown” and [sôm] “orange” as well. Hence, they are categorized as Thai basic color terms.

Generally, basic color terms in Thai would not necessarily be preceded by the word [sǐ:] “color” except the terms [fá:] “blue”, [námta:n] “brown” and [sôm] “orange.” These three basic color terms are necessary to have the precedence of the word for precise understanding, otherwise it depends on the context of the conversation. Besides, these three basic color terms share the same meaning of the names of the specific objects, that is, [fá:] “blue” is synonymous to [fá:] “sky”, [námta:n] “brown” is synonymous to [námta:n] “sugar” and [sôm] “orange” is synonymous to [sôm] “a kind of fruit”.

4.2 NON-BASIC COLOR TERMS

The number and types of non-basic color terms found in Thai are cited in this topic. It also refers to the result of statistic data analyzing of sex and age might reflect to the number of non-basic color terms or not and how it is.

4.2.1 Types of non-basic color terms

From the investigation, it is revealed that Thai non-basic color terms are mainly categorized into 4 types as follows:

1. Comparing with the particular objects
2. Modifying color terms with a modifier
3. Foreign loan words
4. Names of specific objects

The details are shown as follows:

1. Comparing with the particular objects as non-basic color term.

From this study, it is found that non-basic color terms derived from the terms comparing with other objects can be grouped as follows:

- Non-basic color terms which are compared with natural objects.

For example;

สีโคลน	[sǐː.khloːn]	‘color of mud’
สีดิน	[sǐː.din]	‘color of earth’
สี(ดิน)ลูกรัง	[sǐː.lûːk.raŋ]	‘color of gravel’
สีน้ำทะเล	[sǐː.náːm.tháʔ.leː]	‘color of sea water’
สีเนื้อ	[sǐː.níʔ]	‘color of skin’
สีฝุ่น	[sǐː.fùn]	‘color of dust’
สีฟาง	[sǐː.faːŋ]	‘color of rice stalk’
สีหมอก	[sǐː.məːk]	‘color of fog’

- Non-basic color terms which are compared with color of some particular flowers. For example;

สีกลีบบัว	[sǐ:.kfi:p.buə]	‘color of petal lotus’
สี (ดอก)จําปา	[sǐ:.tɕam.pa:]	‘color of Champa (flower)’
สี(ดอก)จําปี	[sǐ:.tɕam.pi:]	‘color of Champee (flower)’
สี(ดอก)ผักตบ	[sǐ:.phàk.tòp]	‘color of water hyacinth flower’
สี(ดอก)บานเย็น	[sǐ:.ba:n.jen]	‘color of marvel-of-Peru(flower)’
สี(ดอก)อัญชัญ	[sǐ:.ʔan.tɕhan]	‘color of butter pea(flower)’
สีตองอ่อน	[sǐ:.to:ŋ.ʔò:n]	‘color of young banana leaf’
สีหญ้าแห้ง	[sǐ:.jâ:hê:ŋ]	‘color of dry grass’
สีหมาก	[sǐ:.mà:k]	‘color of betel nut’

- Non-basic color terms which are compared with food and fruits.

For example;

สีกาแฟนม	[sǐ:.ka:.fɛ:.nom]	‘color of milk coffee’
สีไข่ไก่	[sǐ:.khàj.kàj]	‘color of chicken ‘s egg’
สีชา	[sǐ:.tɕha:]	‘color of tea’
สีชานม	[sǐ:.tɕha:.nom]	‘color of milk tea’
สีนม	[sǐ:.nom]	‘color of milk’
สีนมข้น	[sǐ:.nom.khôn]	‘color of sweetened milk’
สีน้ำผึ้ง	[sǐ:.nám.phíŋ]	‘color of honey’
สีเนย	[sǐ:.nøj]	‘color of butter’
สีเปลือกมังคุด	[sǐ:.plíək.maŋ.khút]	‘color of mangos teen skin’

สีมะนาว	[sǐ:.máʔ.na:w]	‘color of lemon’
สีมะละกอสุก	[sǐ:.máʔ.láʔ.ko:.sùk]	‘color of ripe papaya’
สีเม็ดมะปราง	[sǐ:.mét.máʔ.pra:ŋ]	‘color of Marian plum pit’

- Non-basic color terms which are compared with jewelry and minerals. For example;

สีไข่มุก	[sǐ:.khàj.múk]	‘color of pearl’
สีเงิน	[sǐ:.ŋɔn]	‘color of silver’
สีทอง	[sǐ:.tho:ŋ]	‘color of gold’
สีทองแดง	[sǐ:.tho:ŋ.de:ŋ]	‘color of bronze’
สีทับทิม	[sǐ:.tháp.thim]	‘color of ruby’
สีนิล	[sǐ:.nin]	‘color of blue sapphire’
สีบุษราคัม	[sǐ:.bùt.sàʔ.ra:kham]	‘color of topaz’
สีมรกต	[sǐ:.mo:.ráʔ.kòt]	‘color of emerald’
สีหยก	[sǐ:.jòk]	‘color of jade’

- Non-basic color terms which are compared with animals or their body parts. For example;

สีขี้ม้า	[sǐ:.khí:.má:]	‘color of horse’s dung’
สีงาช้าง	[sǐ:.ŋa:.tchá:ŋ]	‘color of elephant tusk’
สีปีกแมลงทับ	[sǐ:.pì:k.máʔ.le:ŋ.tháp]	‘color of Beetle’s wing’
สีเลือดนก	[sǐ:.lǐəʔ.nók]	‘color of bird’s blood’
สีเลือดหมู	[sǐ:.lǐəʔ.mǔ:]	‘color of pig’s blood’

- Non-basic color terms which are compared with particular objects example;

สีกรมท่า	[sǐ:.krom.máʔ.thâ:]	‘Navy blue’
สีควันบุหรี่	[sǐ:.khwan.bùʔ.rǐ:]	‘color of cigarette’s smoke’
สีตะกั่วตัด	[sǐ:.tàʔ.kùə.tàt]	‘bluish white’
สีถ่าน	[sǐ:.thà:n]	‘color of coal’

2. Non-basic color terms which are combined and modified by other color terms.

Non-basic color terms which is combined with another color term have already been mentioned in 4.4 of the strategy of forming non-basic color term.

3. Foreign loan words example;

English loan words

โกโก้	cacao	‘rust brown’
ช็อกโกแลต	chocolate	‘brownish grey’
แทน	tan	‘light or moderate yellowish brown to brownish orange’
โอโรส	old rose	‘dark pink to grayish or moderate red’
บลอนด์	blonde	‘golden color or pale yellowish brown’

French loan words

เบจ	beige	‘yellowish brown’
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Myanmar loan words

กาคี kaki ‘light olive brown to moderate or
light yellowish brown’

กะปี้ ngapi ‘shrimp paste’

(Prayoon Songsin ประยูร ทรงศิลป์, 1983 :161)

4. Non-basic color terms which are specific vocabulary items and used for specific nouns. For example;

/sǐ̌.dò:k.law/ is grey color and is used for describing color of old people’s hair

/sǐ̌.phǐ̌ək/ is white color and is used for describing the animals’ skin ,such as, the hind of an albino elephant.

/sǐ̌.kàʔ.liəw/ is blackish green color. Legend has it that it is the color of one of seven groups of horses which are the vehicles of God Indra.

/sǐ̌.sàʔ.wà:t/ is a greenish gray color. It is derived from comparing with Sawat seeds, a round hard-shelled seed of tropical tree. The color is used to describe the color of hair of Siamese cats.

/sǐ̌.nám.khâ:w/ is a foggy white color mixed with light blue similar to that of a liquid from boiling rice. It is generally used to describe the color of the blue eyes of a white Caucasian.

From the study, it is found that non-basic color terms always require the word /sǐ̌̌/ “color” preceding them.

4.2.2 The results of statistical analysis

When the number of Thai non-basic color terms is known, the terms are then analyzed statistically by using the SPSS for Windows 10 program and T-test and ANOVA are employed to find out whether and how difference age and sex of the informants affect the number of non-basic color terms.

The result of statistical analysis of 60 Thai native speaking informants is shown as follows;

Gender

Source	t-test for Equality of Means		
	T	df	sig,(2-tailed)
Equal variances assumed	-7.683	58	.000
Equal variances not assumed	-7.683	45.294	.000

Table 4.1 t-test result of the value of number of non-basic color terms of Thai informants by gender

The hypothesis is that sex difference affects the number of non-basic color terms.

μ_1 = mean of males

μ_2 = mean of females

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of non-basic color terms between males and females is significant at the .000 level (sig.= .000), which is less than 0.05 level. The finding indicates that there is no significance and the hypothesis is thus rejected. $H_0: \mu_1 = \mu_2$ could be interpreted that different sexes affect the number of non- basic color terms. That is, females in every age range had more non-basic color terms than their male counterparts. The finding reflects that females were finely sensitive in classifying color and compared them with surrounding objects. For example, Thai women classify and have many words for green ,e.g., เขียวหัวเป็ด /khǎw.hǔə.pèt/‘duck head green’, เขียวมะกอก /khǎw.máʔ.kò:k/‘olive green’, เขียวขี้ม้า /khǎw.khǐ:.má:/‘horse dung green’ and เขียวตองอ่อน /khǎw.tɔŋ.ʔò:n/ ‘young banana leaf green’. On the other hand, most Thai men use modifiers to explain color shades, e.g., light or dark, or combine basic color terms together, e.g., เขียวเหลือง /khǎw.hǎw/ ‘yellowish green’

Age

Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Between Groups	208.233	2	104.117	.760	.427
Within Groups	7803.950	57	136.911		
Total	8012.183	59			

Table 4.2 Anova result of the value of number of non-basic color terms of Thai informants by age

The hypothesis is that age difference affects the number of non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : at least one pair of μ is different

It could be seen from the table that the number of non-basic color terms of the informants with the age ranges of 15-29 years, 30-44 years and 45-60 years is significant at the level .427 (sig.=.427), which is more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that age range does not affect the number of non-basic color terms.

The number of color terms were not different in three age groups, but they differed in details. For 45-60 years and 30-44 years groups, most term were compared with nature in general, but the 15-29 years group, they were compared with edible things and nearby objects, such as , butter, cacao or oval tine.

4.3 THAI COLOR TERMS EVOLUTION

After having studied color terms in many languages of the world, Berlin and Kay propose the evolution of basic color terms that there are seven stages of basic color terms evolution. Stage I is the appearance of white and black, Stage II is the appearance of red, Stage III is the appearance of either green or yellow, Stage IV is the appearance of green or yellow Stage V is the appearance of blue, Stage VI is the appearance of brown and Stage VII is the appearance of purple, pink, orange and grey.

From the result of Thai color term analysis, 12 basic color terms are found, which are white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange and grey. It could be assumed from the finding that the evolution of Thai basic color terms is at the 7th stage of Berlin and Kay’s proposal. The sequence of Thai color terms is shown as follows:

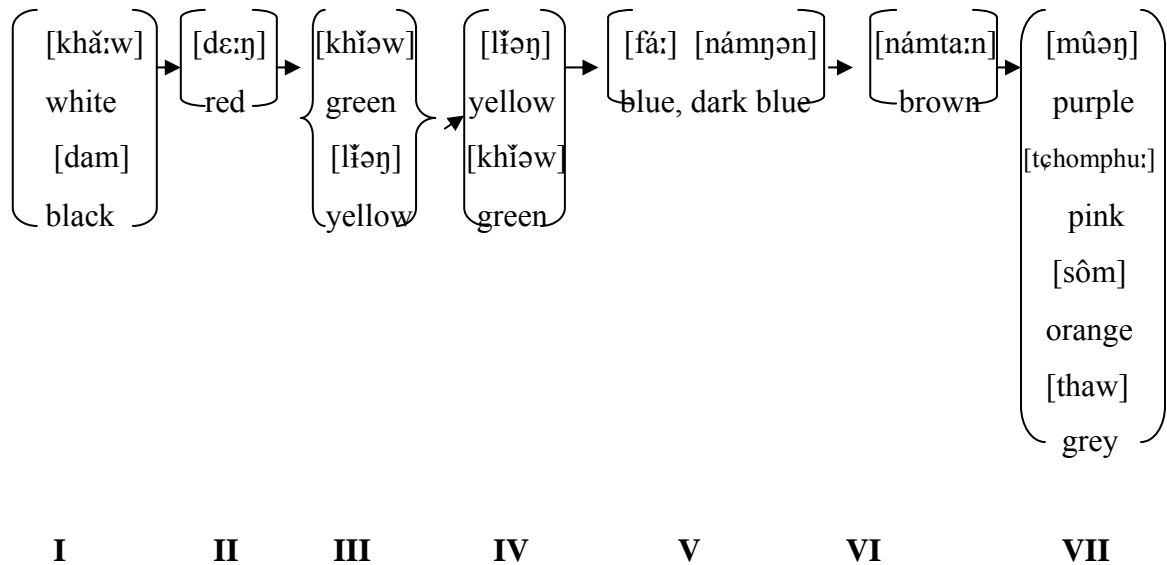


Diagram 4.1 Hypothesis of Thai basic color terms evolution

According to The theory of Berlin and Kay’s mentioned above, the evolution of Thai basic color terms is at the seven stage. The first stage contains two color terms, i.e., white and black, the second stage contains three color terms, i.e., white, black and red, the third stage contains four color terms, i.e., white, black, red, green or white, black, red, yellow, the fourth stage contains five terms, i.e., white, black, red, green, yellow, the fifth stage contains seven color terms, i.e., white, black, red, green, yellow, blue and dark blue, the sixth stage contains eighth terms, i.e., white, black, red, green, yellow, blue, dark blue, brown ,and the last stage contains twelve terms, i.e., white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange and grey.

The research findings reveal that Thai basic color term evolution both supported and against the basic color term evolution theory proposed by Berlin and Kay (1969) and the revised one by Kay (1975). The evolution of stages I,II,III,IV,VI

and VII were in line and supported the theory, while stage V was against it. According to the theory, blue appeared at this stage, which included blue and dark blue. However, Thai clearly distinguished between blue and dark blue.

4.4 STRATEGIES OF FORMING NON-BASIC COLOR TERMS

4.4.1 Strategies of forming non-basic color terms

The data analysis reveals that there are four strategies of forming non-basic color terms in Thai.

1. Combining one color term with another color term.
2. Using the name of a specific object as a color term.
3. Modifying basic Color terms.
4. Modifying non-basic color terms.

The details are shown as follows:

1. Combining basic color term.

This strategy combines two basic color terms in order to derive a new term and use the term for a non-basic color term. The process is done by repeating the head word without a tone change, repeating the head word with the tone change, and combining two basic color terms with or without a verb.

- repeating the head word without a tone change

basic color term + basic color term(head word) = non-basic color term

To form non-basic color terms by this technique, two basic color terms were reduplicated without tone change to lessen the brightness of the color.

ขาว ขาว

(khǎ:w + khǎ:w)

(white +white)

‘whitish white’

(basic color term + basic color term)

ดำ ดำ

(dam + dam)

(black + black)

‘blackish black’

(basic color term + basic color term)

ฟ้า ฟ้า

(fǎ: + fǎ:)

(sky blue + sky blue)

‘bluish blue’

(basic color term + basic color term)

- repeating the head word with a tone change

basic color term + basic color term(head word) = non-basic color term

To form non-basic color terms by this technique, two basic color term were juxtaposed with a preceding modifier. Tone of modifier was change to high rising to intensify the brightness of the color.

แดง แดง

(dɛːŋ + dɛːŋ)

(red+red)

‘really red’

(basic color term + basic color term)

เขียว เขียว

(khíəw + khǐəw)

(green+green)

‘really green’

(basic color term + basic color term)

ม่วง ม่วง
(múəŋ + mûəŋ)
(purple+purple)

‘really purple’

(basic color term + basic color term)

- combining two color terms without conjunction

basic color term + basic color term = non-basic color term

This combination emphasizes on the first basic color term as a main word and the second term as a modifier.

น้ำตาล แดง

(námta:n + dɛ:ŋ)

(brown+ red)

‘red brown’

(basic color term + basic color term)

เทา ดำ

(thaw + dam)

(grey + black)

‘black grey’

(basic color term + basic color term)

ม่วง แดง

(mûəŋ + dɛ:ŋ)

(purple+ red)

‘red purple’

(basic color term + basic color term)

- combining two color terms with verb

basic color term + {verb} + basic color term = non-basic color term

เทาอมฟ้า

(thaw+ໂອມ+ฟ้า)

(grey + a mixture of + blue)

‘bluish grey’

(basic color term + {verb} + basic color term)

ขาวออกเหลือง

(khǎ:w + ໂວ:k+ ມີຸງ)

(white+ a mixture of +yellow)

‘yellowish white’

(basic color term + {verb} + basic color term)

เขียวปนฟ้า

(khǎ:w + pon+ ฟ้า)

(green+ a mixture of + blue)

‘bluish green’

(basic color term + {verb} + basic color term)

เทาเขียวฟ้า

(thaw + ຕຸ້ອ + ฟ้า)

(green+ a mixture of + blue)

‘bluish grey’

(basic color term + {verb} + basic color term)

2. Using the name of a specific object as a color term.

This strategy uses the names of specific objects as a color term instead of forming a new color term. For examples;

สีน้ำทะเล

(สี: nám.tháʔ.le:)

(color + sea water)

‘color of sea water’

สีเปลือกมังคุด

(สี: pl̩ə̀k.maŋ.khúʔ)

(color + skin + mangos teen)

‘color of mangos teen skin’

สีควันบุหรี่

(สี: khwan.bùʔ.rì:)

(color + smoke + cigarette)

‘color of cigarette smoke’

3. Modifying basic color terms

The investigation reveals that there are two types of modifiers. They include adjectives and specific lexical items. Some adjectives could modify general basic color terms whereas others could specifically modify certain basic color terms as the following examples show.

- Modifying basic color term with general adjectives

Basic color term + (general)adjective = non-basic color term

For example;

เขียวแก่
(khǎw +kɛ̀ :)
(green+ dark)
'dark green'
(basic color term +adjective)

ฟ้าอ่อน
(fǎ: + ʔò:n)
(sky blue+ light)
'light sky blue'
(basic color term + adjective)

แดงสด
(dɛ:ŋ + sòt)
(red+ bright)
'bright red'
(basic color term + adjective)

เหลืองหม่น
(lǎw + mòn)
(yellow+ foggy)
'foggy yellow'
(basic color term + adjective)

น้ำเงินเข้ม
(nám.ŋən+khêm)
(dark blue + bright)
'bright dark blue'
(basic color term + adjective)

เทาจาง

(thaw+ tɕa:ŋ)

(grey+ pale)

‘pale grey’

(basic color term + adjective)

The above modifiers can modify more than one colors, not particularly to any one color.

- Modifying basic color terms with emphatic adverb

Basic color term + emphatic adverb = non-basic color term

For example;

เหลืองอ๋อย

(hɔ̌ŋ+ ʔɔ̌j)

(yellow + emphatic adverb)

(basic color term + emphatic adverb)

แดงแจ๋

(dɛ:ŋ + tɕǎ:)

(red+ emphatic adverb)

(basic color term + emphatic adverb)

แดงเปร๊ด

(dɛ:ŋ +pré:t)

(red+ emphatic adverb)

(basic color term + emphatic adverb)

เขียวอ้อ

(khǎw + ʔǎ:)

(green+ emphatic adverb)

(basic color term + emphatic adverb)

ขาวจ้าว

(khǎ:w + tɔ́wǎ:ʔ)

(white+ emphatic adverb)

(basic color term + emphatic adverb)

ดำปี้ดปี้

(dam + pít pǐ:)

(black+ emphatic adverb)

(basic color term + emphatic adverb)

The above emphatic adverb could not modify many basic color terms, but could modify only certain color terms.

- Basic color term + modifier (name of a specific object) = non-basic color term, such as:

เขียวจี้ม้า

(khǎw+khî: má:)

(green+ horse's dung)

'horse's dung green color'

(basic color term + name of specific object)

ฟ้าน้ำทะเล

(fá:+ná:m tháʔ le:)

(blue+ water sea)

'sea water color'

(basic color term + name of specific object)

แดงเลือดนก

(dɛːŋ+l̥h̥ɔt nók)

(red+ bird blood)

‘bird’s blood color’

(basic color term + name of specific object)

4. Non-basic color terms with modifiers

This strategy combines a non-basic color term with a modifier in order to form a new color term. Moreover, there are three types of Thai non-basic color terms. The first type is the combination of a basic color term with a name of a specific object and modifier. The second one uses the name of a specific object as a color term with modifier and the last one uses a loan word with a modifier. Furthermore, the modifier found is usually an adjective. The strategy of modifying Thai non-basic color term is as follows:

- Non-basic color term (basic color term+ name of a specific object) + modifier = non-basic color term, such as

สีเขียวขี้ม้าแก่

(sǐː.khǐəw+khîː.máː+kɛː)

(green + horse’s dung+ dark)

‘dark horse’s dung green color’

(basic color term+ name of specific object+ modifier)

สีฟ้าน้ำทะเลอ่อน

(sǐː.fáː+náːm.tháː.leː+?wǎːn)

(blue + sea water + light)

‘light sea water blue color’

(basic color term+ name of specific object+ modifier)

สีแดงเลือดหมูเข้ม

(sǐː.dɛːŋ+lǐət.mǔː+khêm)

(red + pig's blood + dark)

'dark pig's blood color'

(basic color term+ name of specific object+ modifier)

- Non-basic color term (name of a specific object) + modifier = non-basic color terms. For example;

สีน้ำทะเลอ่อน

(sǐː+náːm.tháʔ.leː+ʔǝːn)

(color + marine water+ light)

'light sea water color'

(name of specific object + modifier)

สีเลือดหมูเข้ม

(sǐː+lǐət.mǔː+khêm)

(color + pig's blood + dark)

'dark pig's blood color'

(basic color term+ name of specific object+ modifier)

สีหยกอ่อน

(sǐː+jòk+ʔǝːn)

(color + jade + pale)

'pale jade green color'

(basic color term+ name of specific object+ modifier)

- Non-basic color term (loan word)+ modifier = non-basic color term,
such as

สีโอรสอ่อน

(sǐ:.ʔo:.rót+ʔò:n)

(color +old rose+ light)

‘light old rose color’

(loan word + modifier)

สีกะปิอ่อน

(sǐ:.kàʔ.pǐʔ+ʔò:n)

(color + shrimp paste+ light)

‘light shrimp paste color’

(name of specific object + modifier)

สีกาเกีเข้มน

(sǐ:.ka:.ki:+khêm)

(color + khaki+ dark)

‘dark khaki color’

(loan word + modifier)

4.4.2 The result of statistic data analysis

In this topic, analysis result from using SPSS for Windows 10 program, T-test and ANOVA to analyze the data are compared to find out whether sexes and ages of the informants affect the strategies in creating non-basic color terms. The result could be the detailed as follow :

Strategy 1: Combining basic color terms together.

Strategy 1.1. Basic color term + basic color term = non-basic color term

The result from analyzing the data obtained from 60 Thai informants are as follows:

Gender

Source	t-test for Equality of Means		
	T	df	Sig,(2-tailed)
Equal variances assumed	5.461	58	.000
Equal variances not assumed	5.461	57.152	.000

Table 4.3 t-test result of the value of non-basic color term forming strategy 1 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000),less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	18.533	2	9.267	1.142	.326
Within Groups	462.450	57	8.113		
Total	480.983	59			

Table 4.4 Anova result of the value of non-basic color term forming strategy 1 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .326 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using this strategy to create non-basic color terms among three age groups.

Strategy 2: Using the names of specific objects as color term

Gender

Source	t-test for Equality of Means		
	T	df	sig,(2-tailed)
Equal variances assumed	-8.823	58	.000
Equal variances not assumed	-8.823	51.495	.000

Table 4.5 t-test result of the value of non-basic color term forming strategy 2 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000),less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	9.100	2	4.550	.255	.776
Within Groups	1018.900	57	17.875		
Total	1028.000	59			

Table 4.6 Anova result of the value of non-basic color term forming strategy 2 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .776 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using this strategy to create non-basic color terms among three age groups.

Strategy 3: Modifying basic color terms

Strategy 3.1: basic color term + modifier (adjective) = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	sig,(2-tailed)
Equal variances assumed	-6.372	58	.000
Equal variances not assumed	-6.372	54.417	.000

Table 4.7 t-test result of the value of non-basic color term forming strategy 3.1 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. = .000), less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	1.733	2	.867	.071	.931
Within Groups	692.850	57	12.155		
Total	694.583	59			

Table 4.8 Anova result of the value of non-basic color term forming strategy 3.1 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .931 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using this strategy to create non-basic color terms among three age groups.

Strategy 3.2: basic color term + modifier (name of specific object) = non-basic color term

Gender

Source	t-test for Equality of Means		
	t	df	sig,(2-tailed)
Equal variances assumed	-5.891	58	.000
Equal variances not assumed	-5.891	43.882	.000

Table 4.9 t-test result of the value of non-basic color term forming strategy 3.2 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000),less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Between Groups	6.400	2	3.200	.248	.781
Within Groups	734.450	57	12.885		
Total	740.850	59			

Table 4.10 Anova result of the value of non-basic color term forming strategy 3.2 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .781 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using this strategy to create non-basic color terms among three age groups.

Strategy 4.1: non-basic color term (basic color term + name of specific objects) + modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	t	df	sig,(2-tailed)
Equal variances assumed	-4.769	58	.000
Equal variances not assumed	-4.769	57.035	.000

Table 4.11 t-test result of the value of non-basic color term forming strategy 4.1 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000),less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Between Groups	22.900	2	11.450	1.884	.161
Within Groups	346.350	57	6.076		
Total	369.250	59			

Table 4.12 Anova result of the value of non-basic color term forming strategy 4.1 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1=\mu_2=\mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .781 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1=\mu_2=\mu_3$ could be interpreted that there is no difference in using this strategy to create non-basic color terms among three age groups.

Strategy 4.2

Non-basic color term (name of specific object) + modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	t	df	sig,(2-tailed)
Equal variances assumed	-4.756	58	.000
Equal variances not assumed	-4.756	40.758	.000

Table 4.13 t-test result of the value of non-basic color term forming strategy 4.2 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000), less than 0.05 level, which indicates that the hypothesis is rejected.

$H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using this strategy.

Age

Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Between Groups	67.900	2	33.950	5.669	.006
Within Groups	341.350	57	5.989		
Total	409.250	59			

Table 4.14 Anova result of the value of non-basic color term forming strategy 4.2 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

The table shows that the number of non-basic color terms derived from using this strategy of the three age groups is significant at the .006 level (sig.=.006), less than 0.05 level, indicating that the mean of the three age groups are significantly different. Therefore, Scheffe’s method is employed to test inter-group differences in order to find out how and which age groups are different. The finding are as follow.

AGE	(I)RANGEAGE	(J)RANGE	Mean Difference (I-J)	Sig.
Scheffe	15-29	30-44	-2.60*	.006
		45-60	-1.15	.338
	30-44	15-29	2.60*	.006
		45-60	1.45	.182
	45-60	15-29	1.15	.338
		30-44	-1.45	.182

Table 4.15 Values of age group differences according to Scheffe’s method

In comparing the data by using Scheffe’s method, when the 15-29 age group is compared with the 45-60 age group, it is .338 level. When the 30-44 age group is compared with the 45-60 age group, it is .182 level. However, when the 15-29 age group is compared with the 30-44 age group it is .006 level. It could be thus assumed that the two age ranges are different in using this strategy to create non-basic color terms.

Strategy 4.3

Non-basic color term (foreign loan words) + modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	t	df	Sig.(2-tailed)
Equal variances assumed	1.535	58	.130
Equal variances not assumed	1.535	53.659	.131

Table 4.16 t-test result of the value of non-basic color term forming strategy 4.3 of Thai informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .130 level (sig.=.130), more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Between Groups	48.533	2	24.267	11.319	.000
Within Groups	122.200	57	2.144		
Total	170.733	59			

Table 4.17 Anova result of the value of non-basic color term forming strategy 4.3 of Thai informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

The table shows that the number of non-basic color terms derived from using this strategy of the three age groups is significant at the .000 level (sig.=.000), less than 0.05 level, indicating that the mean of the three age groups are significantly different. Therefore, Scheffe’s method is employed to test inter-group differences in order to find out how and which age groups are different. The finding are as follow.

AGE	(I)RANGEAGE	(J)RANGE	Mean Difference (I-J)	Sig.
Scheffe	15-29	30-44	1.80*	.001
		45-60	2.00*	.000
	30-44	15-29	-1.80*	.001
		45-60	.20	.911
	45-60	15-29	-2.00*	.000
		30-44	-.20	.911

Table 4.18 Values of age group differences according to Scheffe’s method

A comparative investigation according to Scheffe’s reveals that when the age range of 30-44 years was compared with that of 45-60 years, the result is .911 level. The result from comparing the age range of 15-29 years with 30-44 years is .001, which that of 15-29 years with 45-60 years is .000, less than the 0.05 level. The finding indicates that the 25-29 years age range is different from other groups in using this strategy to create non-basic color terms.

The results from statistical analysis reveal that male and female Thai informants are significantly different in using all strategies to create non-basic color terms. Thus, it could be assumed that among Thai informants, sex affects the use of strategies to create non-basic color term

Regarding their age, Thai informants with different age group are not significantly different in using several strategies to create non-basic color terms. In general, it could be said that age is not significantly different. Nonetheless, two strategies are found to be significantly different in relation to age. The first strategy is non-basic color term(terms of specific object) + modifier. It is found that the 15-29 age group use this strategy significantly less than 30-44 age group. The second strategy is non-basic color term (loan words) + modifier. It is found that the 15-29 age group uses this strategies significantly more than other groups. The finding may reflect the increasing use of loan words in present –day Thai society.

CHAPTER V

VIETNAMESE COLOR TERMS

In this chapter, the presentation of the research results on Vietnamese color terms will cover the following 4 topics.

1. Basic color terms in Vietnamese
2. Non-basic color terms in Vietnamese
3. Development of Vietnamese basic color terms

4. Strategies in creating Vietnamese non-basic color terms and statistical analysis results to find out whether and how gender and age affect the number of non-basic color terms.

The data were collected from 60 Vietnamese native informants who reside in Hanoi and use Hanoi dialect for daily communication. They were divided into 30 males and 30 females. As for age, they were categorized into three age groups and ten informants of each gender were selected to represent each age group: 15-29 years, 30-44 years, 45-60 years.

5.1 BASIC COLOR TERMS

The analysis result of Vietnamese basic color terms according to the criteria in 1.6.1, it is revealed that there are nine of them, which could be shown as follows:

trắng	‘white’
đen	‘black’
đỏ	‘red’
vàng	‘yellow’
xanh	‘GRUE’
nâu	‘brown’
tím	‘purple’
hồng	‘pink’
xám	‘grey’

In Vietnamese, the terms yellow (*vàng*), pink (*hồng*), and grey (*xám*) are homophonous with specific objects. *vàng* could be either yellow or gold, *hồng* could be either pink or rose, and *xám* could be either grey or ashes. However, these three colors are very distinctive and impressive in Vietnamese speakers' mind because they could make distinction between these three colors very well. Moreover, they were syntactically congruous in the frame work of basic color terms. So they were categorized as basic color term. As a consequence, they are categorized as basic color terms. As for "orange" (*da cam*), it should not be classified as a basic color term in Vietnamese, since it is derived from a combination of *da* 'peel' and *cam* 'orange'. The term is contradictory to the first criterion of basic color terms.

Although the term *xanh* 'GRUE' covers green, dark blue and blue, it doesn't mean that Vietnamese informants could not distinguish these three colors. They could identify and distinguish them very well. Nonetheless, they should not be categorized as basic color terms because they are not single words but a combination of words. The terms 'blue' is made of *xanh* 'GRUE' and *da trời* 'sky'. In term 'dark blue' is the combination of *xanh* 'GRUE' and *mực* 'ink' or *citu long* 'a brand name of ink'. As for 'green', it is from *xanh* 'GRUE' and *lá cây* 'leaf'. Therefore, the three color should not be considered basic color terms.

Vietnamese basic color terms may or may not be preceded by the word *màu* 'color', except *vàng* 'yellow', *hồng* 'pink' and *xám* 'grey' because they are homophonous with other objects as mentioned earlier. Context of conversation would clarify the meanings of these three terms.

5.2 NON-BASIC COLOR TERMS

The number and types of non-basic color terms found in Vietnamese are cited in this topic. It also refers to the result of statistic data analyzing of sex and age might reflect to the number of non-basic color terms or not and how it is.

5.2.1 Types of non-basic color terms

From the analysis, it is revealed that there are four types of non-basic color terms in Vietnamese, which are the same as Thai. They include

1. Comparing with the particular objects
2. Modifying color terms with a modifiers
3. Foreign loan words
4. Names of specific objects

Details are as follows:

1. Comparing with the particular objects as non-basic color terms

As mentioned above, it is found that there are many non-basic color terms which are gotten from comparing with objects. Therefore, they can be grouped as follows:

- Non-basic color terms that comparing with natural objects.

For example;

màu bùn (color +dust)	‘color of dust’
màu đất (color + earth)	‘color of earth’
màu khói (color + smoke)	‘color of smoke’
màu mây (color + cloud)	‘color of cloud’
màu rơm (color + rice stalk)	‘color of rice stalk’
màu sương (color + dew)	‘color of dew’

- Non-basic color terms from comparing with color of some particular flowers.

For example;

màu cánh sen ‘color of lotus petal’
(color + petal+ lotus)

màu hoa cà ‘color of lilac flower’
(color + flower +lilac)

màu hoa cau ‘color of areca-nut flower’
(color + flower + areca-nut)

màu hoa đào ‘color of peach flower’
(color + flower + peach)

màu hoa rau muống ‘color of water morning glory flower’
(color + flower + water morning glory)

- Non-basic color terms from comparing with foods and fruits. For example;

màu cau chín ‘color of areca-nut ripen’
(color + ripe + areca-nut)

màu cốm ‘color of green rice flakes’
(color + green rice flakes)

màu da cam ‘color of orange skin’
(color + skin + orange)

màu hạt dẻ ‘color of chestnut’
(color + chestnut)

màu mận chín ‘color of ripe plum’
(color + plum+ ripe)

màu mắm tôm ‘color of shrimp paste’
(color + shrimp paste)

màu mỡ gà ‘color of chicken fat’
(color + fat + chicken)

màu nho ‘color of grape’
(color + grape)

màu nước gạo ‘color of a liquid from boiling rice’
(color + a liquid from boiling rice)

màu sữa ‘color of milk’
(color + milk)

- Non-basic color terms from comparing with jewelry and minerals. For example;

màu bạc ‘color of silver’
(color + silver)

màu chì ‘color of lead’
(color + lead)

màu da đồng ‘color of copper surface’
(color + surface + copper)

màu đồng ‘color of copper’
(color + copper)

màu hổ phách ‘color of amber’
(color + amber)

màu ngọc ‘color of gem’
(color + gem)

màu ngọc bích ‘color of emerald’
(color + emerald)

màu ngọc trai ‘color of pearl’
(color + pearl)

- Non-basic color terms from comparing with animals and animal parts. For example;

màu cánh gián ‘color of cockroach’s wing’
(color + wing + cockroach)

màu cánh kiến ‘color of ant’s wing’
(color + wing +ant)

màu cánh trả ‘color of Halcyon’s wing’
(color + wing +Halcyon)

màu da bò ‘color of cow skin’
(color + skin + cow)

màu hoàng yến ‘color of canary bird’
(color + canary bird)

màu lông chuột ‘color of rat’s hair’
(color + hair +rat)

màu lông gà con ‘color of young chicken’s hair’
(color + hair + chicken +young)

- Non-basic color terms from compared with objects as example;

màu gạch ‘color of brick’
(color + brick)

màu gỗ ‘color of wood’
(color + wood)

màu gụ ‘color of Sindora wood’
(color + Sindora wood)

màu hắc ín ‘color of tar’
(color + tar)

màu huyết dụ ‘color of Cordyline(tree)’
(color + Cordyline tree)

màu son ‘color of lipstick’
(color + lipstick)

màu tàn thuốc lá ‘color of cigarette smoke’
(color + cigarette smoke)

màu xi măng ‘color of cement’
(color + cement)

2. Non-basic color terms which are combined and modified by other color terms.

Non-basic color terms is combined with another color term have already been mentioned in 5.4 of the strategy of forming non-basic color term.

From the study of Vietnamese color terms, it is found that non-basic color terms are always preceded by *màu* ‘color’.

3. Foreign loan words as non-basic color terms

English loan words

sôcôla	chocolate	‘brownish grey’
--------	-----------	-----------------

French loan words

màu be	beige	‘yellowish brown’
--------	-------	-------------------

màu ghi	grey	‘grey’
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Myanmar loan words

màu ka-ki	khaki	‘light olive brown to moderate or light yellowish brown’
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4. Name of other objects as non-basic color terms. For example;

huyền means jet-black color and is used for describing an eye, e.g., *mắt huyền* ‘a jet-black eye’

mun means ebony black color and is used with a cat, e.g., *mèo mun* ‘an ebony cat’

mực means ink color and is used with a dog, e.g., *chó mực* ‘a black dog’

ô means raven black color and it is used with horse, e.g., *ngựa ô* ‘a raven horse’

5.2.2 The result of statistic data analysis

When the number of Vietnamese non-basic color terms is known, the terms are then analyzed statistically by using the SPSS for Windows 10 program and T-test and ANOVA are employed to find out whether and how difference ages and sexes of the informants affect the number of non-basic color terms.

The result of statistical analysis of 60 Vietnamese native speaking informants is shown as follows;

Gender

Source	t-test for Equality of Means		
	t	df	Sig.(2-tailed)
Equal variances assumed	-1.968	58	.054
Equal variances not assumed	-1.968	37.433	.057

Table 5.1 t-test result of the value of number of non-basic color terms of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be noted from the table that the number of non-basic color terms between male and female informants is significant at the .054 level (sig.=.054), more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms. The finding points out that the average number of non-basic color terms of male and female informants are not different. Although most studies reveal that females are more refined in classifying color shades than males, the Vietnamese case is quite different. Vietnamese society expect men to know everything. This may be a reason why Vietnamese men have a similar color-related lexical repertoire comparing to that of their female counterparts.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	110.633	2	55.317	.290	.749
Within Groups	10866.350	57	190.638		
Total	10976.983	59			

Table 5.2 Anova result of the value of number of non-basic color terms of Vietnamese informants by age

The hypothesis is that age difference affects the number of non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : at least one pair of μ is different

It could be seen from the table that the number of non-basic color terms of the informants with the age ranges of 15-29 years, 30-44 years and 45-60 years is significant at the 0.749 level (sig.=.749), which is more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that is age range does not affect the number of non-basic color terms.

Although the statistic results indicate that non-basic color terms for each age group are not different, further scrutiny reveals that there is a difference in types and strategies in creating non-basic color terms for each age group. Among the informants in the 45-60 and 30-44 age groups, most color terms were derived from comparing with the nature in general. However, among the 15-29 year informants they were compared more with eating stuff and surrounding objects, e.g., chocolate, ice cream. The finding was very similar to the Thai case.

5.3 THE EVOLUTION OF VIETNAMESE COLOR TERMS

From studies on color terms of languages in the world, Berlin and Kay find and propose that there are seven stages of basic color term evolution. At stage one, there exist black and white, stage two red, stage three green or yellow, stage four green and yellow, stage five blue, stage six brown, and stage seven purple, pink, orange and grey.

From analyzing Vietnamese basic color terms, it is found that there are nine basic color terms, which include black, white, red, yellow, GRUE, brown, purple, pink and grey. It could be assumed that the color term evolution of Vietnamese is at 7th stage, which could be shown according to their rank of existence as follows:

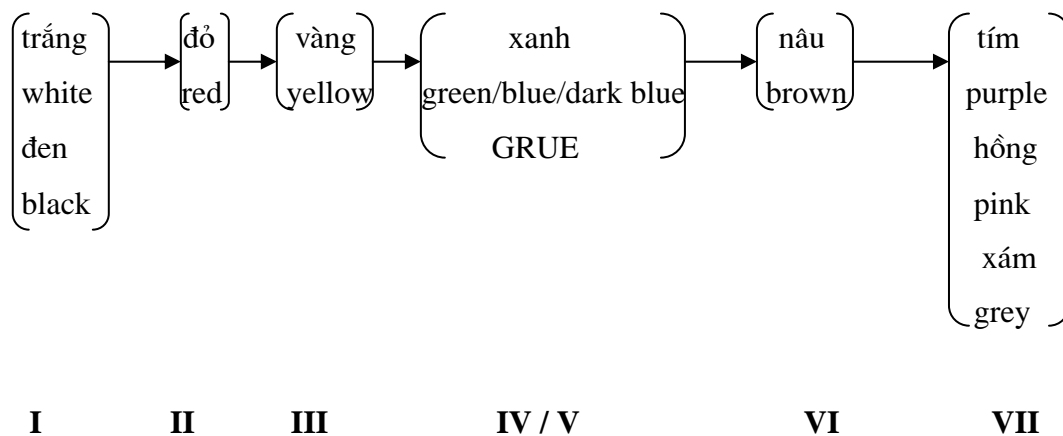


Diagram 5.1 Hypothesis of Vietnamese basic color terms evolution

The above detail elaborates the seven stages of Vietnamese basic color term evolution. In Stage I, there exist white and black, stage II white, black and red, stage III white, black, red, yellow, stage IV white, black, red, yellow and GRUE, stage V white, black, red, yellow and GRUE, stage VI white, black, red, yellow, GRUE and brown and stage VII white, black, red, yellow, GRUE, brown, purple, pink and grey.

The analysis result reveals that the order of Vietnamese basic color term evolution is both in line with and contradictory to the theory of basic color term evolution proposed by Berlin and Kay. The evolution of Vietnamese basic color term stage I, II, and stage III is in line with and support the theory, whereas that of stage IV,

V and VII is different from and contrary to the theory. According to the theory, there exist yellow and green at stage IV, while there are yellow and GRUE in Vietnamese. At stage V according to the theory, green is separated from blue/dark blue, but in Vietnamese it is still GRUE, which covers green/ blue/ dark blue. At stage VII, there does not exist orange in Vietnamese as proposed by the theory.

When the sequence of Vietnamese basic color term evolution according to the theory proposed by Paul Kay (1975) is taken into consideration, it is found that the sequence is both in line with and contradictory to the theory. The evolution at stage I, II, III and IV is in line with the theory, while that at stage stages V and VII contradictory. According to the theory, green is separated from blue/dark blue at stage V, where as in Vietnamese it is still GRUE, which includes green/ blue/ dark blue. At stage VII orange is non-existent in Vietnamese.

5.4 STRATEGIES IN FORMING NON-BASIC COLOR TERMS

5.4.1 Strategy in forming non-basic color terms

It is found that there are four strategies in forming non-basic color terms in Vietnamese.

1. Combining one color term with another color term.
2. Using the name of a specific object as a color term.
3. Modifying basic color terms
4. Modifying non-basic color terms

The details are shown as follows:

1. Combining basic color term

This strategy combines two basic color terms in order to derive a new term and use the term for a non-basic color term. The process is done by repeating the head word without a tone change, repeating the head word with the tone change, and combining two basic color terms with or without a conjunction.

- Repeating the head word without a tone change

Basic color term + basic color term (head word) = non-basic color term

To form non-basic color terms by this technique, the same basic color terms were reduplicated without tone change to intensify the brightness of the colors.

đen **đen**

(đen + đen)

(black + black)

‘really black’

(basic color term + basic color term)

xanh **xanh**

(xanh +xanh)

(GRUE+ GRUE)

‘really GRUE’

(basic color term + basic color term)

vàng **vàng**

(vàng +vàng)

(yellow+yellow)

‘really yellow’

(basic color term + basic color term)

hồng **hồng**

(hồng+ hồng)

(pink+pink)

‘really pink’

(basic color term + basic color term)

- Repeating the head word with a tone change

Basic color term + basic color term (head word) = non-basic color term

To form non-basic color terms by this technique, the same basic color terms were reduplicated. Head noun was the second entity while modifier preceding it

underwent the tone change to mid level (ngang) in order to intensify the brightness of the colors.

trắng **trắ**ng

(trắ

ng+trắ

ng+white)

‘really white’
(basic color term + basic color term)

tím **tí**m

(tím +tí

m+purple)

‘really purple’

(basic color term + basic color term)

xám **xá**m

(xám +xá

m+grey)

‘really grey’

(basic color term + basic color term)

- Combining basic color term without verb

Basic color term + basic color term = non-basic color term

xanh tím

(xanh +tím)

(Green+ purple)

‘purplish dark blue’

(basic color term + basic color term)

tím hồng

(tím + hồng)

(purple+ pink)

‘pinkish purple’

(basic color term + basic color term)

Vietnamese and Thai have the same characteristic in which a new color term put on emphasis on the first basic color term as the main word or head and the second one a modifier.

- Combining basic color term with verb

Basic color term + {verb} + basic color term = non-basic color term

xanh pha vàng

(xanh + pha +vàng)

(GRUE+mix+yellow)

‘yellowish green’

(basic color term + {verb} + basic color term)

2. Using the name of specific objects as color term

This strategy uses the name of specific objects which are already in existence as color terms instead of forming new ones. For instance

màu lông chuột

(color + fur + rat)

‘color of rat’s fur’

màu tàn thuốc lá

(color + cigarette smoke)

‘color of cigarette smoke’

màu cánh gián
 (color + wing + cockroach)
 ‘color of cockroach’s wing’

3. Modifying basic color terms

The investigation reveals that there are two types of modifiers. They include adjectives and specific lexical items. Some adjectives could modify general basic color terms whereas others could specifically modify certain basic color terms as the following examples.

- Modifying basic color term with general adjectives

Basic color term + (general)adjective = non-basic color term For example;

tím đậm
 (tím +đậm)
 (purple+dark)
 ‘dark purple’
 (basic color term + Adjective)

ghi thẫm
 (ghi + thẫm)
 (grey+dark)
 ‘dark grey’
 (basic color term + Adjective)

vàng sẫm
 (vàng +sẫm)
 (yellow+dark)
 ‘dark yellow’
 (basic color term + Adjective)

xanh tối
 (xanh+ tối)
 (GRUE+night)
 ‘dark GRUE’
 (basic color term + Adjective)

The terms đậm, thẫm and sẫm, also mean ‘dark’ when modifying color words. It should be noted that all these terms are phonetic variants. The word tối means ‘evening dark’. When it modifies color words, the color is more of the mixture of black than normal or dark-oriented.

hồng nhạt
 (hồng+ nhạt)
 (pink+light)
 ‘light pink’
 (basic color term + Adjective)

đỏ tươi
 (đỏ +tươi)
 (red+fresh)
 ‘bright red’
 (basic color term + Adjective)

tím chết
 (tím +chết)
 (purple+die)
 ‘blackish purple’
 (basic color term +Adjective)

xanh già
(xanh+già)
(GRUE+old)
'dark green'
(basic color term + Adjective)

xanh non
(xanh+ non)
(GRUE+young)
'light green'
(basic color term + Adjective)

ghi sáng
(ghi+ sáng)
(grey +bright)
(bright grey)
(basic color term + Adjective)

hồng phớt
(hồng+ phớt)
(pink+pale)
'pale pink'
(basic color term + Adjective)

From the investigation, it is found that there is one modifier which could precede or follow the head word without changing the meaning. The modifier is *phớt* 'light', e.g., *phớt hồng* or *hồng phớt* 'light pink'.

The above adjective could modify many other colors, not only one color.

- Modifying basic color terms with emphatic adverb

Basic color term + emphatic adverb = non-basic color term

For example;

đỏ đun

(đỏ+đun)

(red+ fiery)

‘fiery red’

(basic color term + emphatic adverb)

trắng đục

(trắng+ đục)

(white+ foggy)

‘foggy white’

(basic color term + emphatic adverb)

The above emphatic adverb cannot modify many basic colors. They can modify only certain colors.

- Basic color term + modifier (name of a specific object) = non basic color term . For example;

xanh nõn chuối

(xanh+ nõn chuối)

(GRUE+ banana leaf)

‘banana leaf green color’

(basic color term +name of specific object)

xanh rêu

(xanh+ rêu)

(GRUE+ moss)

‘moss green’

(basic color term + name of specific object)

tím than

(tím+ than)

(purple+coal)

‘coal purple’

(basic color term + name of specific object)

nâu đất

(nâu +đất)

(brown+ earth)

‘earth brown’

(basic color term + name of specific object)

4. Modifying non-basic color terms

This strategy combines a non-basic color term with a modifier in order to form a new color term. Moreover, there are four types in forming non-basic color terms. The first type is combining two basic color terms together and modifier. The second one combination of a basic color term with a name of a specific object and modifier. The third one uses the name of a specific object as a color term with modifier and the last one uses a loan word with a modifier. Furthermore, the modifier found is usually an adjective. The strategy of modifying Thai non-basic color term is as follows:

- (basic color term+ basic color term) + modifier = non-basic color term such as

xanh tím nhạt

(xanh + tím+ nhạt)

(green+ purple+ light)

‘light purple green’

(basic color term+ basic color term + adjective)

In this strategy, The adjective does not specifically modify one of the basic color terms, but modifies both. Therefore, the word meaning ‘light’ above

modifies both GRUE and purple. This strategy is exclusively found in Vietnamese, not in Thai.

- (basic color term+ name of a specific object) + modifier = non-basic color term, such as

xanh lá cây non

(xanh+ lá cây+ non)

(GRUE+ leaf +young)

‘young banana leaf green color’

(basic color term+ name of specific object + adjective)

xanh nước biển nhạt

(xanh + nước biển + nhạt)

(Grue + sea water + light)

‘light sea water blue color’

(basic color term+ name of specific object + adjective)

- (name of a specific object) + modifier = non-basic color term, such as

màu gạch non

(màu gạch + non)

(brick color+ young)

‘young brick color’

(name of specific object+ adjective)

màu cốm già

(màu cốm+ già)

(green rice flakes color + old)

‘dark green rice flakes color’

(name of specific object+ adjective)

- (Foreign loan words) + basic color terms = non-basic color term, such as

màu ghi xanh
 (màu ghi + xanh)
 (grey+ GRUE)
 ‘GRUE grey’
 (French loan words + basic color terms)

màu be vàng
 (màu be + vàng)
 (beige + yellow)
 ‘yellow beige’
 (French loan words + basic color terms)

5.4.2 The results of statistic data analysis

In this topic, analysis result from using SPSS for Windows 10 program, T-test and ANOVA to analyze the data are compared to find out whether sexes and ages of the informants affect the strategies in creating non-basic color terms. The result could be the detailed as follows :

Strategy 1: Combining basic color terms together.

Strategy 1.1. Basic color term + basic color term = non-basic color term

The result of statistic data analysis of 60 Vietnamese native-speaking informants in this topic is shown as follows:

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	2.447	58	.017
Equal variances not assumed	2.447	57.455	.018

Table 5.3 t-test result of the value of non-basic color term forming strategy 1 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .017 level (sig. =.017), less than 0.05 level, which indicates that the hypothesis is rejected. $H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using the strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	74.633	2	37.317	2.750	.072
Within Groups	773.550	57	13.571		
Total	848.183	59			

Table 5.4 Anova result of the value of non-basic color term forming strategy 1 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .072 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using the strategy to create non-basic color terms among three age groups.

Strategy 2: Using the name of specific objects as color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-1.990	58	.051
Equal variances not assumed	-1.990	35.673	.054

Table 5.5 t-test result of the value of non-basic color term forming strategy 2 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .051 level(sig=.051),more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	364.033	2	182.017	2.187	.122
Within Groups	4744.900	57	83.244		
Total	5108.933	59			

Table 5.6 Anova result of the value of non-basic color term forming strategy 2 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .122 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using the strategy to create non-basic color terms among three age groups.

Strategy 3: Modifying basic color term

Strategy 3.1 basic color term + modifier (adjective) = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-1.820	58	.074
Equal variances not assumed	-1.820	55.833	.074

Table 5.7 t-test result of the value of non-basic color term forming strategy 3.1 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .074 level (sig.=.074), more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	62.400	2	31.200	4.124	.021
Within Groups	431.200	57	7.565		
Total	493.600	59			

Table 5.8 Anova result of the value of non-basic color term forming strategy 3.1 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1=\mu_2=\mu_3$

H_1 : At least one pair of μ is different

The table shows that the number of non-basic color terms derived from using this strategy of the three age groups is significant at the .021 level (sig.=.021),less than 0.05 level, indicating that the mean of the three age groups are significantly different. Therefore, Scheffe’s method is employed to test inter-group differences in order to find out how and which age groups are different. The finding are as follow.

AGE	(I)RANGEAGE	(J)RANGE	Mean Difference (I-J)	Sig.
Scheffe	15-29	30-44	-.60	.789
		45-60	-2.40*	.028
	30-44	15-29	.60	.789
		45-60	-1.80	.127
	45-60	15-29	2.40*	.028
		30-44	1.80	.127

Table 5.9 Values of age group differences according to Scheffe’s method

In comparing the data by using Scheffe’s method, when the 15-29 age group is compared with the 30-44 age group, it is at the .789 level. When the 30-44 age group is compared with the 45-60 age group, it is at the .127 level. However, when the 15-29 age group is compared with the 44-60 age group it is .028 level. It could be thus assumed that the two age ranges are different in using the strategy to create non-basic color terms.

Strategy 3.2 basic color term + modifier (name of specific object) = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-1.122	58	.266
Equal variances not assumed	-1.122	55.130	.267

Table 5.10 t-test result of the value of non-basic color term forming strategy 3.2 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .266 level(sig= .266), more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	32.500	2	16.250	1.284	.285
Within Groups	721.150	57	12.652		
Total	753.650	59			

Table 5.11 Anova result of the value of non-basic color term forming strategy 3.2 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1=\mu_2=\mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .285 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1=\mu_2=\mu_3$ could be interpreted that there is no difference in using the strategy to create non-basic color terms among three age groups.

Strategy 4 Modifying non-basic color term

Strategy 4.1 non-basic color term (basic color term +basic color term)+modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-.597	58	.553
Equal variances not assumed	-.597	54.244	.553

Table 5.12 t-test result of the value of non-basic color term forming strategy 4.1 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .553 level (sig.=.553), more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	8.233	2	4.117	3.914	.026
Within Groups	59.950	57	1.052		
Total	68.183	59			

Table 5.13 Anova result of the value of non-basic color term forming strategy 4.1 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

The table shows that the number of non-basic color terms derived from using this strategy of the three age groups is significant at the .026 level (sig.=.026), less than 0.05 level, indicating that the mean of the three age groups are significantly different. Therefore, Scheffe’s method is employed to test inter-group differences in order to find out how and which age groups are different. The finding are as follow.

AGE	(I)RANGEAGE	(J)RANGE	Mean Difference (I-J)	Sig.
Scheffe	15-29	30-44	.90*	.027
		45-60	.55	.246
	30-44	15-29	-.90*	.027
		45-60	-.35	.562
	45-60	15-29	-.55	.246
		30-44	.35	.562

Table 5.14 Values of age group differences according to Scheffe’s method

In comparing the data by using Scheffe’s method, when the 15-29 age group is compared with the 45-60 age group, it is .246 level. When the 30-44 age group is compared with the 45-60 age group, it is .562 level. However, when the 15-29 age group is compared with the 30-44 age group it is .027 level. It could be thus assumed that the two age ranges are different in using the strategy to create non-basic color terms.

Strategy 4.2 non-basic color term (basic color term + name of specific object) + modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-2.028	58	.047
Equal variances not assumed	-2.028	52.016	.048

Table 5.15 t-test result of the value of non-basic color term forming strategy 4.2 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .047 level (sig. =.047), less than 0.05 level, which indicates that the hypothesis is rejected. $H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using the strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	15.433	2	7.717	1.197	.310
Within Groups	367.550	57	6.448		
Total	382.983	59			

Table 5.16 Anova result of the value of non-basic color term forming strategy 4.2 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group

μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .310 level, which is more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using the strategy to create non-basic color terms among three age groups.

Strategy 4.3 non-basic color term (name of specific object + modifier = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-1.598	58	.115
Equal variances not assumed	-1.598	44.937	.117

Table 5.17 t-test result of the value of non-basic color term forming strategy 4.3 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be shown from the table that the number of non-basic color terms between male and female informants is significant at the .115 level(sig.=.115),more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2$ could be interpreted that sexes of the informants do not affect non-basic color terms.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	1.433	2	.717	.362	.698
Within Groups	112.750	57	1.978		
Total	114.183	59			

Table 5.18 Anova result of the value of non-basic color term forming strategy 4.3 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1 = \mu_2 = \mu_3$

H_1 : At least one pair of μ is different

It is found from the table that the number of non-basic color terms of the three age groups is significant at the .698 level, more than 0.05 level, indicating that the hypothesis is accepted. $H_0: \mu_1 = \mu_2 = \mu_3$ could be interpreted that there is no difference in using the strategy to create non-basic color terms among three age groups.

Strategy 4.4 non-basic color term (foreign loan words) + basic color term = non-basic color term

Gender

Source	t-test for Equality of Means		
	T	df	Sig.(2-tailed)
Equal variances assumed	-4.756	58	.000
Equal variances not assumed	-4.756	40.758	.000

Table 5.19 t-test result of the value of non-basic color term forming strategy 4.4 of Vietnamese informants by gender

The hypothesis is that male and female informants use different strategies in creating non-basic color terms.

μ_1 = mean of male

μ_2 = mean of female

$H_0: \mu_1 = \mu_2$

$H_1: \mu_1 \neq \mu_2$

It could be seen from the table that the number of basic color terms derived from using this strategy by male and female informants is significant at the .000 level (sig. =.000), less than 0.05 level, which indicates that the hypothesis is rejected. $H_0: \mu_1 = \mu_2$ could be interpreted that male and female informants are different in using the strategy.

Age

Source	Sum of Squares (SS)	Df	Mean square (MS)	F	Sig.
Between Groups	48.533	2	24.267	11.319	.000
Within Groups	122.200	57	2.144		
Total	170.733	59			

Table 5.20 Anova result of the value of non-basic color term forming strategy 4.4 of Vietnamese informants by age

The hypothesis is that different age group differ in using this strategy to create non-basic color terms.

μ_1 = mean of 15-29 age group μ_2 = mean of 30-44 age group

μ_3 = mean of 45-60 age group

$H_0: \mu_1=\mu_2=\mu_3$

H_1 : At least one pair of μ is different

The table shows that the number of non-basic color terms derived from using this strategy of the three age groups is significant at the .000 level (sig.=.000),less than 0.05 level, indicating that the mean of the three age groups are significantly different. Therefore, Scheffe’s method is employed to test inter-group differences in order to find out how and which age groups are different. The finding is as follow.

AGE	(I)RANGEAGE	(J)RANGE	Mean Difference (I-J)	Sig.
Scheffe	15-29	30-44	1.80*	.001
		45-60	2.00*	.000
	30-44	15-29	-1.80*	.001
		45-60	.20	.911
	45-60	15-29	-2.00*	.000
		30-44	-.20	.911

Table 5.21 Values of age group differences according to Scheffe’s method

A comparative investigation according to Scheffe's reveals that when the age range of 30-44 years was compared with that of 45-60 years, the result is .911 level. The result from comparing the age range of 15-29 years with 30-44 years is .001, which that of 15-29 years with 45-60 years is .000, less than the 0.05 level. The finding indicates that the 25-29 years age range is different from other groups in using this strategy to create non-basic color terms.

The statistical analysis results reveal that many strategies in creating non-basic color terms among Vietnamese male and female informants are not significantly different. However, two strategies are found to be significantly different. Male informants use the strategy of combining two color terms more than their female counterparts. Female informants use the strategy of basic color term + terms for specific object + modifier more than their male counterparts. From analyzing the data, it could be stated that among Vietnamese informants, sex does not affect the use of non-basic color term strategies.

As for age of Vietnamese informants, it reveals that several strategies are not significantly different. However, there are certain strategies that the age factor is significant. For the basic color term+ modifier(adjective) strategy, it is found that the informants in the age range of 15-29 years use it more significantly than those in the age range of 45-60 years. For the basic color term +basic color term+ modifier strategy, it is found that the informants aged 15-29 years use it less significant than those aged 30-44 years. And for the loan word + basic color term strategy, it is revealed that the informant aged 15-29 years use it more significantly than those in any age groups. The finding indicates that young generation tends to use more foreign loan words to create non-basic color terms. The phenomenon is the same in Thai society.

CHAPTER VI

THE COMPARISON OF THAI AND VIETNAMESE

COLOR TERMS

In this chapter, a comparison of Thai and Vietnamese color terms is made in the following topics:

1. Basic color term of Thai and Vietnamese
2. Non-basic color term of Thai and Vietnamese
3. Basic color term evolution of Thai and Vietnamese
4. Strategies in forming non-basic color terms of Thai and Vietnamese

6.1 BASIC COLOR TERMS OF THAI AND VIETNAMESE

The finding reveals that the number of basic color terms of Thai and Vietnamese are not the same. There are 12 basic color terms in Thai, which include white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange and grey, whereas only nine are found in Vietnamese, which include white, black, red, yellow, green/blue/dark blue, brown, purple, pink and grey. The basic color term of two languages could be summarized in the following table:

Thai basic color terms		Vietnamese basic color terms	
[khǎ:w]	“white”	trắng	“white”
[dam]	“black”	đen	“black”
[dɛ:ŋ]	“red”	đỏ	“red”
[lǐəŋ]	“yellow”	vàng	“yellow”
[khǐəw]	“green”	xanh	‘Grue’
[fá:]	“sky blue”		
[námŋəŋ]	“dark blue”		
[námta:n]	“brown”	nâu	“brown”
[mûəŋ]	“purple”	tím	“purple”
[tɕhomp̄hu:]	“pink”	hồng	“pink”
[sôm]	“orange”	-	
[thaw]	“grey”	xám	“grey”

Table 6.1 Comparison of Thai and Vietnamese basic color terms

Apparently, Thai has more basic color terms than Vietnamese and it is in line with the hypothesis in this investigation. Moreover, the result of this research also supports Berlin and Kay’s theory, which states that the number of basic color terms is related to culture of each country. That is, countries with a simple culture will have fewer numbers of basic color terms than those with complicated culture and high technology.

6.2 NON-BASIC COLOR TERMS OF THAI AND VIETNAMESE

Comparison of non-basic color terms in Thai and Vietnamese focuses on two topics. The first one is the comparison of numbers and types of the terms in the two languages, and the second one is of statistical data based on language elicited from both Thai and Vietnamese informants.

6.2.1 Comparing the types of non-basic color terms

Types of the non-basic color terms, it is found that the types of the terms in both languages are the same. Non-basic color terms in the two languages are derived from loan words, comparing with objects, using name of specific objects and word combination or modification, as shown in the following table.

Types of non-basic color term	Thai	Vietnamese
1. Comparing with objects 1.1 Comparing with natural object 1.2 Comparing with flowers and trees 1.3 Comparing with fruits, foods and drinks 1.4 Comparing with precious stones and minerals 1.5 Comparing with animal and their body part 1.6 Comparing with object	sǐ.ná:m.tha.le: “color of sea water” sǐ.ba:n.jen “color of Banyen flower” sǐ.ka.pǐ? “shrimp paste color” sǐ.tháp.thim “color of ruby” sǐ.ŋa:tɕhá:ng “color of tusk elephant” sǐ.ʔit “brick color”	màu đất “color of earth” màu cánh sen “color of lotus petal” màu cốm “color of green rice flakes” màu ngọc “color of gem” màu cánh gián “color of cockroach’s wing” màu gạch “color of brick”
2. Word combination or modification	See detail in topic strategy informing non-basic color terms.	See detail in topic strategy informing non-basic color term
3. Loan words	sǐ.bè:t “Beige”	màu be “Beige”
4. Name of specific objects	sǐ.dò:k.law is grey color and is used for describing color of old people’s hair	Ô means black color and it is used with horse, e.g., <i>ngựa ô</i> ‘a raven horse’

Table 6.2 Comparison of the types of Thai and Vietnamese non-basic color terms

6.2.2 Comparing the statistic data

In this topic, statistical analysis results are compared to find out whether age and sex of Thai and Vietnamese informant affect the number of non-basic color terms.

Gender

Language	source	T	df	Sig.(2tailed)
Thai	Equal variances assumed	-7.683	58	.000
	Equal variances not assumed	-7.683	45.294	.000
Vietnam	Equal variances assumed	-1.968	58	.054
	Equal variances not assumed	-1.968	37.433	.057

Table 6.3 Comparison of Thai and Vietnamese t-test result of the value of number of non-basic color terms by gender

The table shows that the significance is at the .000 level for Thai informants, indicating that sex does affect the number of non-basic color terms. That is, Thai males and females have a different number of non-basic color terms. For Vietnamese informants, the significance is at the .054 level, indicating that sex does not affect the number of their non-basic color terms. This statistic finding of Thai informants was in accordance with other previous studies in that women were more refined in classifying color shades than men. (Pranut Witchurote, 1986) Nevertheless, it was opposite to Vietnam men. It might be because of different social perspectives. Thai society associates sewing, clothing and flowers with feminine matters. These issues are mostly concerned with colors. When women are more involved, their ability to differentiate colors is more refined. Vietnamese society regards men as knowledgeable. They should know everything regardless of whether issues are male or female-oriented. However, Vietnamese society clearly distinguishes family and social responsibilities between the two genders. Child bearing and cooking, for example, are acceptably regarded as the duty of women.

Age

Language	Source	Sum of Squares (SS)	df	Mean square (MS)	F	Sig.
Thai	Between Groups	208.233	2	104.117	.760	.427
	Within Groups	7803.950	57	136.911		
	Total	8012.183	59			
Vietnam	Between Groups	110.633	2	55.317	.290	.749
	Within Groups	10866.350	57	190.638		
	Total	10976.983	59			

Table 6.4 Comparison of Thai and Vietnamese Anova result of the value of number of non-basic color terms by age

The table shows that the significance is at the .427 level for Thai informants and .0749 level for Vietnamese informants, indicating that age of Thai and Vietnamese informants does not affect the number of non-basic color terms. In other words, different age groups do not have a different number of non-basic color terms.

Although statistic results reveal that age does not affect the number of non-basic color terms, careful analysis of the data reveals that color terms are different from one age group to another.

Personal observations yield that the reason why age does not statistically differentiate the number of non-basic color terms is due to the use of data collection methods. In obtaining data, color chart, color cards and real objects are used as stimuli to elicit the data from every informant. This means that all of informants received the same stimuli. As a consequence, the number of color terms is not greatly different, but details of them are. During the data collection period, more interviews were made to elicit color terms beyond what the instrument provided and among younger informants, they tended to use more loan words. Nevertheless, additional terms are not sufficient to become statistically significant.

6.4 COMPARING THE STRATEGIES IN FORMING NON-BASIC

COLOR TERMS

In this topic, comparison of strategies in forming non-basic color term is made in Thai and Vietnamese informants.

In general, the strategy in forming non-basic color terms between Thai and Vietnamese are relatively similar, different only in small details. There are four main strategies, which are summarized in the following table:

The strategies in forming non-basic color terms	Thai	Vietnamese
1. Combining a color term with another color term -basic color term + basic color term -basic color term + {conjunction} + basic color term - Repeating color term without a tone change - Repeating color term with a tone change	nám.ta:n.dɛ:ŋ (brown+red) thaw.ʔom.fá: (grey+mix+blue) fá:.fá: (blue+blue) dé:ŋ.dɛ:ŋ	xanh tím (GRUE+purple) xanh pha vàng (GRUE+mix+yellow) xanh xanh (GRUE+GRUE) trắng trắng
2. Using the name of specific objects as color term	sǐ:.ná:m.thá?le: (color +sea wter)	màu lông chuột (color+hair+rat)

Table 6.6 Comparison of the strategies in forming Thai and Vietnamese non-basic color term

The strategies in forming non-basic color terms	Thai	Vietnamese
3.Modifying basic color term -basic color term + modifier (general adjective) -basic color term + modifier (emphatic adverb) -basic color term + modifier (name of specific objects)	khǎw.kè: (green+dark) khǎ:w.tɕúəʔ (white+emphaticadverb) khǎw.khî:má: (green+dung+horse)	tím chết (purple+die) trắng đục (white+foggy) xanh rêu (GRUE+moss)
4.Modifying non-basic color term - non-basic color term (basic color term + basic color term) + modifier - non-basic color term (basic color term + name of specific object) + modifier - non-basic color term (name of specific object) + modifier -non basic color term (loan word)+ modifier -non basic color term (loan word)+ basic color term	- sǐ:khǎw.khî:má:kè: (color+green+horse'sdung+dark) sǐ:jòk.ʔɔ̀n (color+jade+pale) sǐ:ka:ki:khêm (color+khaki+dark) -	xanh tím nhạt (GRUE+purple+light) xanh lá cây non (GRUE+leaf+young) màu gạch non (color+brick+young) màu ka-ki thẫm (color+khaki+dark) màu be hồng (color+beige+pink)

Table 6.6 Comparison of the strategies in forming Thai and Vietnamese non-basic color term (cont.)

There is a difference in Thai and Vietnamese in creating a non-basic color term by combining two basic color term with the same tones. In Thai when this strategy is used, the meaning of the new term is slightly change in the opposite direction to that in Vietnamese. When the head word is repeated, the brightness of the color decreases in Thai, where as intensifies in Vietnamese.

The analysis reveals that strategies in forming non- basic color terms in Thai and Vietnamese are fairly similar. However, there are more strategies in creating non-basic color terms in Vietnamese than in Thai, which is against the hypothesis of this investigation.

CHAPTER VII

CONCLUSION AND DISCUSSION

This chapter summarizes the results of the investigation on Thai and Vietnamese color terms as well as discussions and recommendations.

7.1 CONCLUSION

The results of a comparative study on Thai and Vietnamese color terms could be summarized as follows:

7.1.1 Basic color terms

It is revealed from the analysis results that the number of basic color terms in Thai and Vietnamese is not the same. In Thai there are 12 basic color terms, which include white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange and grey. As shown in Figure 7.1

The color shown in this figure were shown according to the highest frequency of the response of the informants from the two languages.

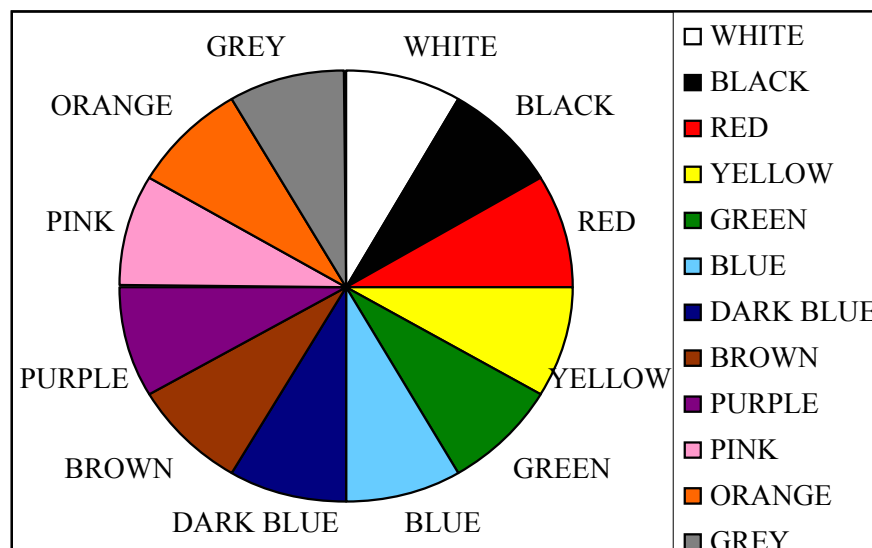


Figure 7.1 Thai basic color terms

In Vietnamese, there are nine basic color terms; white, black, red, yellow, GRUE, brown, purple, pink and grey. As shown in Figure 7.2

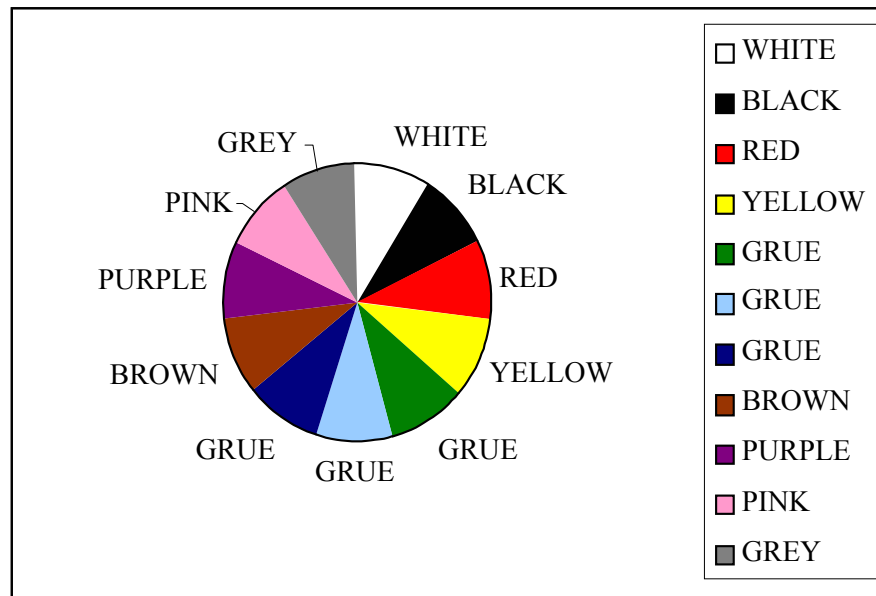


Figure 7.2 Vietnamese basic color terms

Apparently, Thai has more basic color terms than Vietnamese and it is analogous to researcher hypothesis in which Thai should have more basic color terms than Vietnamese. Moreover, the result of this research also supports Berlin and Kay theory, stating that the number of basic color term is related to culture of each country, that is, any country with a simple culture would have fewer number of basic color term than a country with complex culture and high technology.

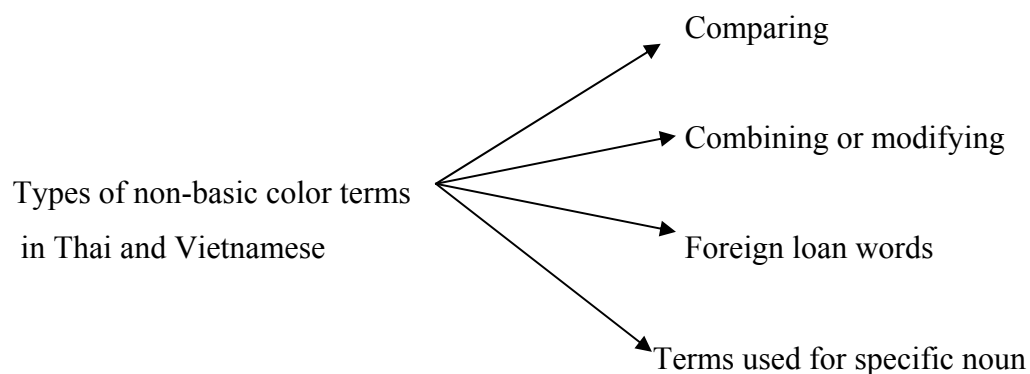
The word “ Pink” in Thai is a loan word from “jambu” (means the rose apple tree) in Sanskrit (Monier Monier Willam : 1976). However, in this investigation, the term is regarded as a basic color term because it is psychologically salient among the Thai native speakers and they are able to identify the color very well. Moreover, it can occur syntactically like other basic color terms, such as *sĭə.dɛ:ŋ* ‘red shirt/blouse’ and *sĭə.chomphu:* ‘pink shirt/blouse’.

Vietnamese has three terms for grey, namely, *xám*, *ghi* and *tro*. The word *xám* is a Vietnamese word while *ghi* is a loan from French, both mean grey.

However, *tro* means ashes, which is most exclusively used by older informants while younger informants hardly use the term.

7.1.2 Non-basic color terms

Types of non-basic color terms in Vietnamese and Thai are closely similar in that they are derived from the same strategies, which include comparing, combining or modifying basic color terms, foreign loan words and non-basic color terms used for specific nouns. The strategies could be shown in the following chart.



Non basic color terms derived from making comparison in both languages are similar in that they are compared with trees, flowers, nature, jewelry, mineral, animals and other objects in the environment.

Non basic color term derived from combining or modifying other basic color terms are very similar, which could be referred back to the topic on strategy in creating non-basic color terms.

As for loan words as non-basic color terms, it is found that they are more in Thai than in Vietnamese. Regarding non-basic color terms used for specific nouns, it is found that both Vietnamese and Thai share the same aspects of the terms, reflecting how refine the two peoples are in utilizing non-basic color terms.

7.1.3 Evolution of basic color terms

The analysis results reveal that the number of Vietnamese and Thai basic color terms is not the same and they are different colors. There are 12 basic color terms in Thai, which include white, black, red, green, yellow, blue, dark blue, brown,

purple, pink, orange and grey, For Vietnamese, there are only nine terms, which include white, black, red, yellow, GRUE, brown, purple, pink and grey.

The researcher has assumed the evolution of Thai and Vietnamese color term as follow;

Thai basic color term evolution

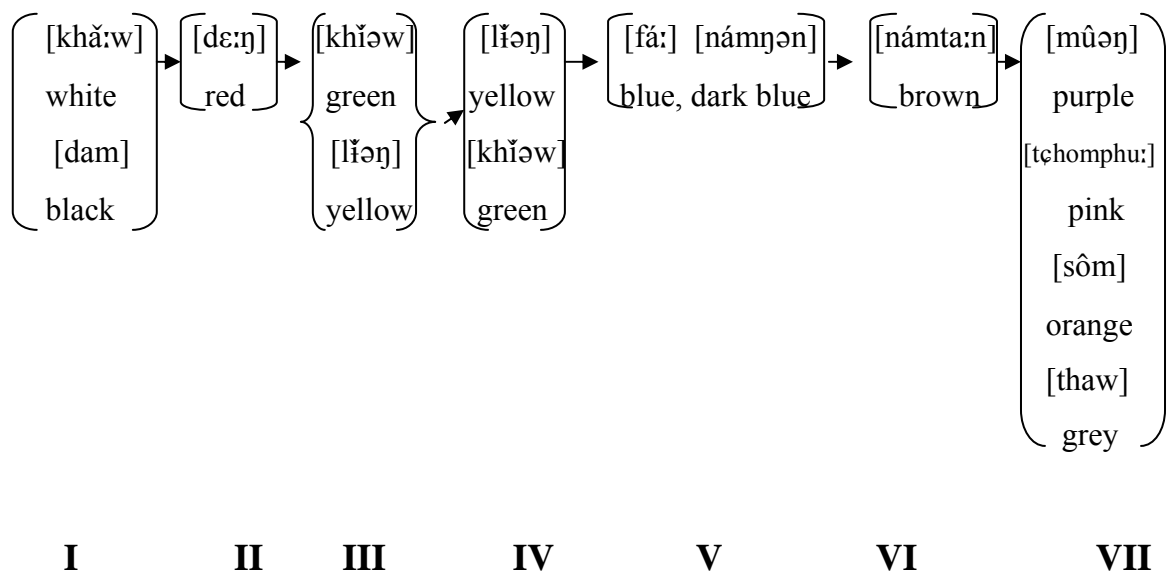


Diagram 7.1 Hypothesis of Thai basic color terms evolution

From the above diagram, it could be interpreted as follows:

Stage I has 2 terms: white and black

Stage II has 3 terms: white, black and red

Stage III has 4 terms: white, black, red and green or white, black, red and yellow

Stage IV has 5 terms: white, black, red, green and yellow

Stage V has 7 terms: white, black, red, green, yellow, blue and dark blue

Stage VI has 8 terms: white, black, red, green, yellow, blue, dark blue, brown

Stage VII has 12 terms: white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange and grey

Vietnamese basic color term evolution

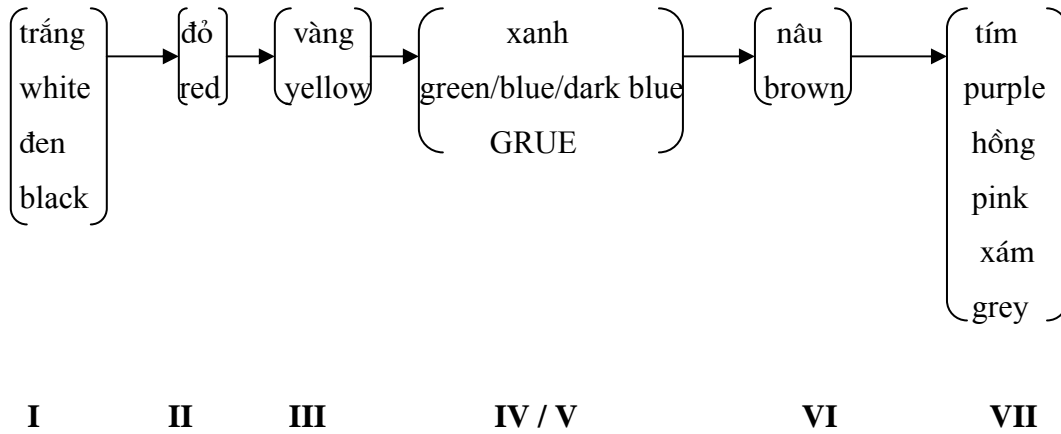


Diagram 7.2 Hypothesis of Vietnamese basic color terms evolution

From the above diagram, it could be interpreted as follows:

Stage I has 2 terms: white and black

Stage II has 3 terms: white, black and red

Stage III has 4 terms: white, black, red and yellow

Stage IV has 5 terms: white, black, red, yellow, GRUE

Stage V has 5 terms: white, black, red, yellow, GRUE

Stage VI has 6 terms: white, black, red, yellow, GRUE, brown

Stage VII has 9 terms: white, black, red, yellow, GRUE, brown, purple, pink and grey

The research findings reveal that Thai basic color term evolution both supported and against the basic color term evolution theory proposed by Berlin and Kay (1969) and the revised one by Kay (1975). The evolution of stages I,II,III,IV,VI and VII were in line and supported the theory, while stage V was against it. According to the theory, blue appeared at this stage, which included blue and dark blue. However, Thai clearly distinguished between blue and dark blue. For Vietnamese’s is both in accordance with and against the theory, be it the one proposed in 1969 and the revised one by Paul Kay in 1975. According to the 1969 theory, the development of basic color terms of both languages in stage I, II and III is in line with and a support the theory. However stages IV, V and VII of Vietnamese are against the theory.

According to the theory, stage IV would exist yellow and green but, in Vietnamese, it is found yellow and GRUE. In stage V, green and blue/dark blue should be separated, but it remains GRUE in Vietnamese, the term covers green/blue/dark blue. In stage VII, Vietnamese does not have orange as proposed by theory.

Based on the revised theory of Kay (1969 and 1975), it is found that the development of Vietnamese basic color terms is both in line and against the theory. Those in line with and support the theory are stages I,II,III and IV, while stages V and VII are against it. According to the theory, green and blue/dark blue should be separated terms in stage V, but it is still GRUE for the three color terms. In stage VII, there is no term for orange in Vietnamese as proposed by the theory.

It is hypothesized that the development of color terms in two languages is as follows.

7.1.4 Strategies in forming non- basic color terms

The findings reveal that there are similarities and differences in the strategy of forming non-basic color terms of Thai and Vietnamese. In terms of similarities, both languages employ four principal strategies:(1) combining color terms, (2) using specific objects, (3) modifying basic color terms, and (4) modifying non-basic color terms. Regarding the differences, Vietnamese has two more sub-strategies. They included (1) modifying non-basic color terms by combining two basic color terms with a modifier, and (2) modifying non-basic color terms by combining a loan word with a basic color term.

It is thus hypothesized from the study findings that strategies in creating non-basic color terms of the two languages should not be the same.

7.2 DISCUSSION

In this topic, three issues will be discussed as follows.

7.2.1 Basic color terms

The investigation on Vietnamese basic color terms reveals that the terms for green *xanh lá cây* and dark blue *xanh mực* should have been derived from the term

xanh ‘GRUE’. It could be assumed that the finding supports Berlin and Kay’s theory in that GRUE branches out into green and blue/dark blue. The theory does not distinguish blue from dark blue. However, the investigation reveals that the two languages clearly separate blue from dark blue and these might be the same in other languages in Southeast Asian region, as Amara states,

“..... In addition, blue and dark blue should be separate terms in the final stage of development. Berlin and Kay did not make the distinction of the two terms because the theory was based on English language. In fact, other languages, particularly non-European, distinguish blue and dark blue as two separate terms” (1995 :174-175)

7.2.2 Non-basic color terms

There is a variety of non- basic color terms in both Vietnamese and Thai, reflecting that the two groups of speakers are refine in distinguishing colors. The terms derived from comparison are mostly compared with nature, flowers and minerals. This indicates that they are closed to and related to nature and among those colors green is the term most compared with the shades of nature.

7.2.3 Social factors

Taking social factors into consideration, it is revealed that a gap of color terms has been developed in Thai culture. It is noticeable that young generation does not know conventional terms derived from comparison, such as, *š̄i:-phlaj* or *š̄i:-sò:k*. Presently, there are numerous color terms but they are not derived from comparing with trees and flowers as used to be. They are compared with food stuff and new inventions, for instance, Oval tine, coffee with milk, butter and white board. This is because Thai society has been changed from agricultural to urban society. In the future, the trend of color terms would be increasing. Old terms might gradually be disappeared and more foreign loanwords would proliferate since many new terms to label lipsticks, nail colors and hair dyes. There are hundreds of colors for silk and wool in textile industry. House paints have also boasted thousands of shades and colors. The same phenomenon is happening in Vietnamese society and more loan words to label new color terms are required as the country is developing into an urban society

From the statistic result, it is found that among Thai male and female informants the average number of non-basic color terms were statistically significant. Female informants classified color shades more finely and knew more non-basic color terms than their male counterparts. For Vietnamese, the average number of non-basic color terms were not statistically significant for both genders. They could classify almost the same number of shades because Vietnamese men are expected to be knowledgeable so their ability to differentiate color shades is almost as good as that of Vietnamese women.

7.3 ADDITIONAL OBSERVATIONS

The investigation reveals that using color chart may not yield exactly natural colors because the shades are ranked from light to dark. When the informants were told identify the color, most of them could identify the main color while using modifiers like “light” or “lighter” for nearby shades. When color cards were used, they could identify the exact colors using modifiers in color chart. It is thus recommended that color cards or real objects be used instead of color chart in order to obtain more natural colors.

Statistical analysis reveals that different age do not affect the number of color terms. The finding might be due to using the instruments as stimuli. Therefore, the number of terms is not different but the details are. It is thus suggested that if the study involves social variables, e.g., sex or age, to obtain lexical domain on color term of informant, such instruments should not be used as stimuli. Talks about or examples of colors are recommended and the data obtained could be compared statistically to find out whether and how there is any difference.

7.4 RECOMMENDATIONS

7.4.1 A comparative study on Vietnamese color terms in the past and present should be conducted to find out how their development is and whether they are in accordance with Berlin and Kay’s theory.

7.4.2 A comparative study on color terms in Chinese and Vietnamese should be carried out because Chinese has influenced Vietnamese linguistically and culturally. The study would enable us to better understand the mechanisms of language contact and language change. From the researcher's observation, there is a number of Hán-Việt color terms but younger informants seemed not to know about them.

7.4.3 There should be an investigation on value and attitude toward color terms in different languages so that cultural reflections of ethnicities could be perceived.

7.4.4 A comparative study on color terms in past and present literature should be conducted.

7.4.5 Other social factors, e.g., occupation should be integrated in the study of color terms because many professions are more or less involved with colors.

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APPENDIX

APPENDIX A

Record Form

Name

Age

Sex

Educational level

Color terms derived from color

#FFFFFF	#FFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300

#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000
#CCFFFF	#CCFFCC	#CCFF99	#CCFF66	#CCFF33	#CCFF00
#CCCCFF	#CCCCCC	#CCCC99	#CCCC66	#CCCC33	#CCCC00
#CC99FF	#CC99CC	#CC9999	#CC9966	#CC9933	#CC9900
#CC66FF	#CC66CC	#CC6699	#CC6666	#CC6633	#CC6600
#CC33FF	#CC33CC	#CC3399	#CC3366	#CC3333	#CC3300
#CC00FF	#CC00CC	#CC0099	#CC0066	#CC0033	#CC0000
#99FFFF	#99FFCC	#99FF99	#99FF66	#99FF33	#99FF00

#99CCFF	#99CCCC	#99CC99	#99CC66	#99CC33	#99CC00
#9999FF	#9999CC	#999999	#999966	#999933	#999900
#9966FF	#9966CC	#996699	#996666	#996633	#996600
#9933FF	#9933CC	#993399	#993366	#993333	#993300
#9900FF	#9900CC	#990099	#990066	#990033	#990000
#66FFFF	#66FFCC	#66FF99	#66FF66	#66FF33	#66FF00
#66CCFF	#66CCCC	#66CC99	#66CC66	#66CC33	#66CC00
#6699FF	#6699CC	#669999	#669966	#669933	#669900

#6666FF	#6666CC	#666699	#666666	#666633	#666600
#6633FF	#6633CC	#663399	#663366	#663333	#663300
#6600FF	#6600CC	#660099	#660066	#660033	#660000
#33FFFF	#33FFCC	#33FF99	#33FF66	#33FF33	#33FF00
#33CCFF	#33CCCC	#33CC99	#33CC66	#33CC33	#33CC00
#3399FF	#3399CC	#339999	#339966	#339933	#339900
#3366FF	#3366CC	#336699	#336666	#336633	#336600
#3333FF	#3333CC	#333399	#333366	#333333	#333300

#3300FF	#3300CC	#330099	#330066	#330033	#330000
#00FFFF	#00FFCC	#00FF99	#00FF66	#00FF33	#00FF00
#00CCFF	#00CCCC	#00CC99	#00CC66	#00CC33	#00CC00
#0099FF	#0099CC	#009999	#009966	#009933	#009900
#0066FF	#0066CC	#006699	#006666	#006633	#006600
#0033FF	#0033CC	#003399	#003366	#003333	#003300
#0000FF	#0000CC	#000099	#000066	#000033	#000000

Color terms derived from interviews :.....

.....

APPENDIX B

COLOR- BLINDNESS TESTING CARD AND COLOR CHART

The color blindness testing card was taken from

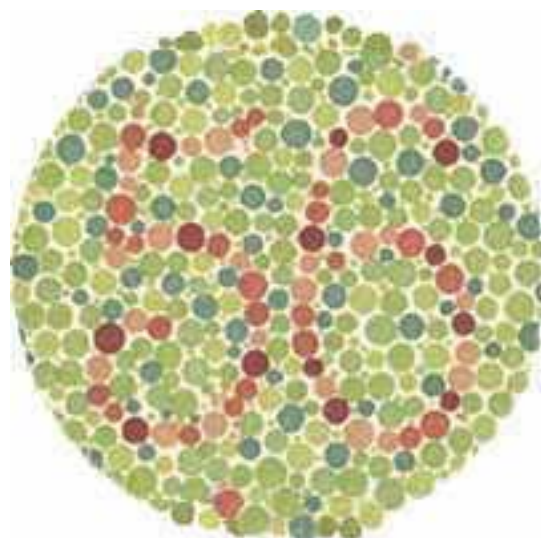
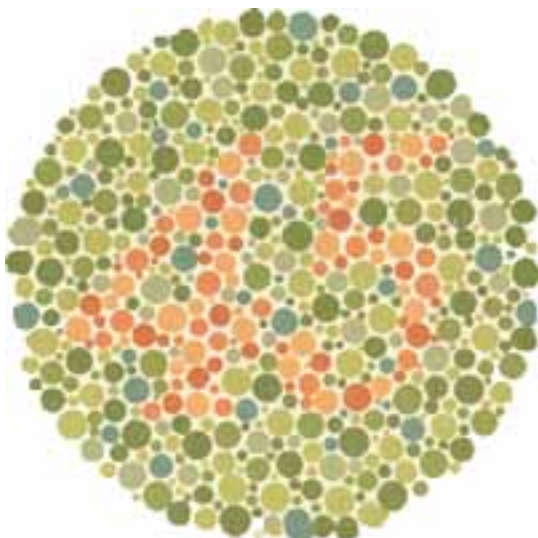
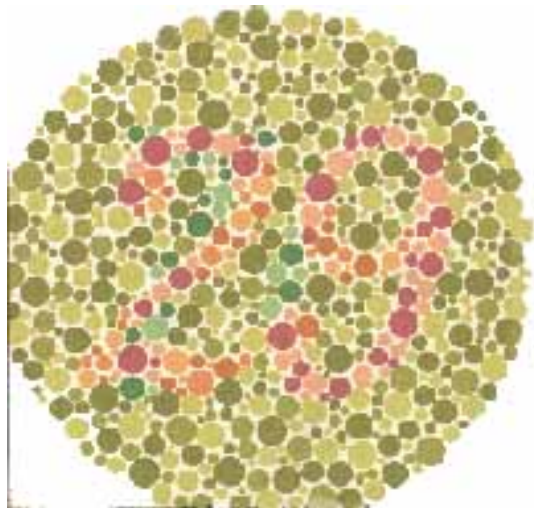
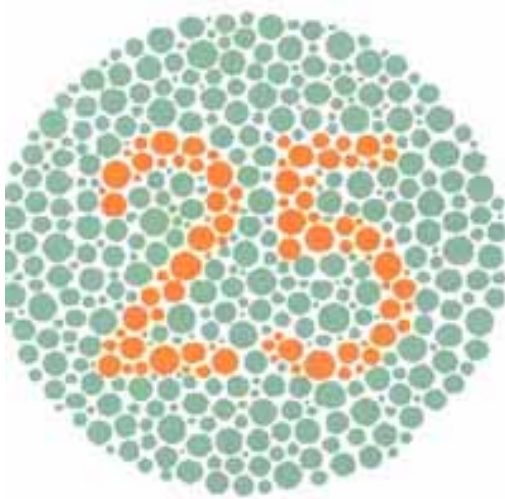
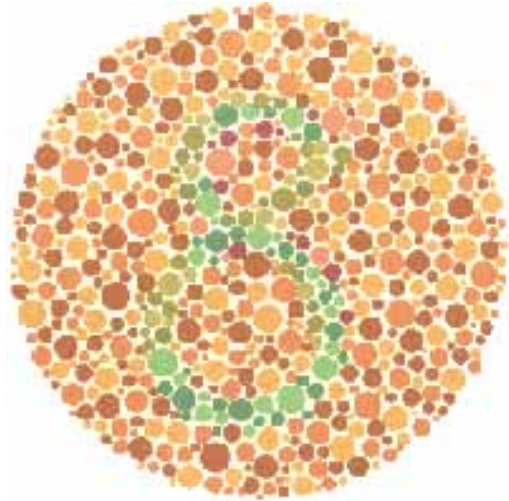
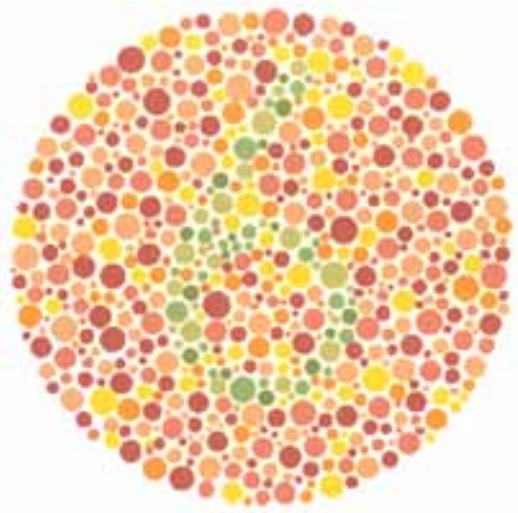
<http://www.toledo-bend.com/colorblind/Ishihara.html> (7/2/2002)

The color chart was adapted from that displayed in

http://www.web-source.net/216_color_chart.htm (7/2/2002)

and <http://www.brobstsystems.com/colors.htm> (7/2/2002)

Color-blindness testing card



Color Chart

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300
#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000

#CCFFFF	#CCFFCC	#CCFF99	#CCFF66	#CCFF33	#CCFF00
#CCCCFF	#CCCCCC	#CCCC99	#CCCC66	#CCCC33	#CCCC00
#CC99FF	#CC99CC	#CC9999	#CC9966	#CC9933	#CC9900
#CC66FF	#CC66CC	#CC6699	#CC6666	#CC6633	#CC6600
#CC33FF	#CC33CC	#CC3399	#CC3366	#CC3333	#CC3300
#CC00FF	#CC00CC	#CC0099	#CC0066	#CC0033	#CC0000

#99FFFF	#99FFCC	#99FF99	#99FF66	#99FF33	#99FF00
#99CCFF	#99CCCC	#99CC99	#99CC66	#99CC33	#99CC00
#9999FF	#9999CC	#999999	#999966	#999933	#999900
#9966FF	#9966CC	#996699	#996666	#996633	#996600
#9933FF	#9933CC	#993399	#993366	#993333	#993300
#9900FF	#9900CC	#990099	#990066	#990033	#990000

#66FFFF	#66FFCC	#66FF99	#66FF66	#66FF33	#66FF00
#66CCFF	#66CCCC	#66CC99	#66CC66	#66CC33	#66CC00
#6699FF	#6699CC	#669999	#669966	#669933	#669900
#6666FF	#6666CC	#666699	#666666	#666633	#666600
#6633FF	#6633CC	#663399	#663366	#663333	#663300
#6600FF	#6600CC	#660099	#660066	#660033	#660000

#33FFFF	#33FFCC	#33FF99	#33FF66	#33FF33	#33FF00
#33CCFF	#33CCCC	#33CC99	#33CC66	#33CC33	#33CC00
#3399FF	#3399CC	#339999	#339966	#339933	#339900
#3366FF	#3366CC	#336699	#336666	#336633	#336600
#3333FF	#3333CC	#333399	#333366	#333333	#333300
#3300FF	#3300CC	#330099	#330066	#330033	#330000

#00FFFF	#00FFCC	#00FF99	#00FF66	#00FF33	#00FF00
#00CCFF	#00CCCC	#00CC99	#00CC66	#00CC33	#00CC00
#0099FF	#0099CC	#009999	#009966	#009933	#009900
#0066FF	#0066CC	#006699	#006666	#006633	#006600
#0033FF	#0033CC	#003399	#003366	#003333	#003300
#0000FF	#0000CC	#000099	#000066	#000033	#000000

APPENDIX C

THAI COLOR TERM

The order of color terms are ranked according to Berlin and Kay's theory (1969) of basic color terms evolution as follows: white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange, grey.

For color terms derived from comparing with particular objects, they are arranged in alphabetical order of Thai.

Thai color terms

Basic color terms

ขาว	[khǎ:w]	“ white”
ดำ	[dam]	“ black”
แดง	[dɛ:ŋ]	“ red”
เขียว	[khǎ:w]	“green”
เหลือง	[lǎiŋ]	“ yellow”
ฟ้า	[fá:]	“ blue”
น้ำเงิน	[ná:mŋɔ:n]	“ dark blue”
น้ำตาล	[ná:mta:n]	“ brown”
ม่วง	[mû:ŋ]	“purple”
ชมพู	[tɕhompʰu:]	“ pink”
ส้ม	[sôm]	“ orange”
เทา	[thaw]	“ grey”

Non - basic color terms

1. Word combination or modification

1.1 Combining a color term with another color terms

- basic color term + basic color term

เขียวเหลือง	[khǎw.lǎɯŋ]	‘yellow green’
น้ำตาลแดง	[námta:n.dɛŋ]	‘red brown’
เทาดำ	[thaw.dam]	‘black grey’
เทาเขียว	[thaw.khǎw]	‘green grey’
เทาฟ้า	[thaw.fá:]	‘blue grey’

- basic color term + {verb} + basic color term

ขาวออกเหลือง	[khǎ:w.ʔw:k.lǎɯŋ]	‘yellowish white’
แดงอมส้ม	[dɛŋ.ʔom.sôm]	‘orangish red’
เหลืองอมส้ม	[lǎɯŋ.ʔom.sôm]	‘orangish yellow’
เหลืองปนเขียว	[lǎɯŋ.pon.khǎw]	‘yellowish green’
เขียวปนฟ้า	[khǎw.pon.fá:]	‘bluish green’

ฟ้าอมเขียว	[fǎː.ʔom.khǎw]	‘greenish blue’
น้ำเงินอมดำ	[námŋən.ʔom.dam]	‘blackish dark blue’
น้ำเงินปนดำ	[námŋən.pon.dam]	‘blackish dark blue’
น้ำตาลปนแดง	[námta:n.pon.deːŋ]	‘reddish brown’
น้ำตาลอมส้ม	[námta:n.ʔom.sôm]	‘orangish brown’
ม่วงอมเทา	[muŋ.ʔom.thaw]	‘purplish grey’
ม่วงอมน้ำเงิน	[muŋ.ʔom.námŋən]	‘dark bluish purple’
เทาอมดำ	[thaw.ʔom.dam]	‘blackish grey’
เทาอมเขียว	[thaw.ʔom.khǎw]	‘greenish grey’
เทาอมฟ้า	[thaw.ʔom.fǎː]	‘bluish grey’
เทาเจือฟ้า	[thaw.tɕiə.fǎː]	‘bluish grey’

- Repeating color term without a tone change

ขาว ขาว	[khǎːw.khǎːw]	‘whitish white’
ดำดำ	[dam.dam]	‘blackish black’
ฟ้าฟ้า	[fǎː.fǎː]	‘bluish blue’

- Repeating color term with a tone change

แดงแดง	[dɛ̌:ŋ.dɛ̌:ŋ]	‘really read’
เขียวเขียว	[khíəw.khíəw]	‘really green’
ม่วง ม่วง	[múəŋ.múəŋ]	‘really purple’

1.2 Using the name of specific objects as color term

- Natural object

สีโคลน	[sǐ:.khlo:n]	‘color of mud’
สีดิน	[sǐ:.din]	‘color of earth’
สี(ดิน)ลูกรัง	[sǐ:.lú:k.raŋ]	‘color of gravel’
สีน้ำทะเล	[sǐ:.ná:m.tháʔ.le:]	‘color of sea water’
สีเนื้อ	[sǐ:.níə]	‘color of skin’
สีฝุ่น	[sǐ:.fùn]	‘color of dust’
สีฟาง	[sǐ:.fa:ŋ]	‘color of rice stalk’
สีหมอก	[sǐ:.mò:k]	‘color of fog’

- Flowers and trees

สีกลีบบัว	[sǐ:.kli:p.buə]	‘color of petal lotus’
สี (ดอก)จำปา	[sǐ:.tɕam.pa:]	‘color of Champa (flower)’
สี(ดอก)จำปี	[sǐ:.tɕam.pi:]	‘color of Champee (flower)’
สี(ดอก)ผักตบ	[sǐ:.phàk.tòp]	‘color of water hyacinth flower’
สี(ดอก)บานเย็น	[sǐ:.ba:n.jen]	‘color of marvel-of-Peru(flower)’

สี(ดอก)อัญชัญ	[sǐː.ʔan.tɕhan]	‘color of butter pea(flower)’
สีตองอ่อน	[sǐː.tɔːŋ.ʔɔːn]	‘color of banana leaf young’
สีหญ้าแห้ง	[sǐː.jâː.hɛːŋ]	‘color of grass dry’
สีหมาก	[sǐː.màːk]	‘color of betel nut’

- Foods , fruits and drinks

สีกาแฟนม	[sǐː.kaː.fɛː.nɔm]	‘color of milk coffee’
สีไข่ไก่	[sǐː.khài.kài]	‘color of chicken ‘s egg’
สีชา	[sǐː.tɕhaː]	‘color of tea’
สีชานม	[sǐː.tɕhaː.nɔm]	‘color of milk tea’
สีนม	[sǐː.nɔm]	‘color of milk’
สีนมข้น	[sǐː.nɔm.khôn]	‘color of sweetened milk’
สีน้ำผึ้ง	[sǐː.nám.phíŋ]	‘color of honey’
สีเนย	[sǐː.nɔj]	‘color of butter’
เปลือกมังคุด	[sǐː.píək.maŋ.khút]	‘color of mangosteen skin’
สีเผือก	[sǐː.phǎək]	‘color of taro’
สีมะนาว	[sǐː.máː.naːw]	‘color of lemon’
สีมะละกอสุก	[sǐː.máː.láː.koː.sùk]	‘color of ripe papaya’
สีเม็ดมะปราง	[sǐː.mét.máː.praːŋ]	‘color of Marian plum p
สีลูกพลับ	[sǐː.lúːk.phláp]	‘color of persimmon’
สี(ส้ม)มะละกอ	[sǐː.máː.láː.koː]	‘color of (orange) papaya’
สี(เหลือง)มะละกอ	[sǐː.máː.láː.koː]	‘color of (yellow) papaya’

- Precious stones and minerals

สีไข่มุก	[sǐ:.khàj.múk]	‘color of pearl’
สีเงิน	[sǐ:.ŋə̀n]	‘color of silver’
สีทอง	[sǐ:.tho:ŋ]	‘color of gold’
สีทองแดง	[sǐ:.tho:ŋ.de:ŋ]	‘color of bronze’
สีทับทิม	[sǐ:.tháp.thim]	‘color of ruby’
สีนิล	[sǐ:.nin]	‘color of blue sapphire’
สีบุษราคัม	[sǐ:.bùt.sàʔ.ra:kham]	‘color of topaz’
สีมรกต	[sǐ:.mɔ:.ráʔ.kòt]	‘color of emerald’
สีหยก	[sǐ:.jòk]	‘color of jade’

- Animals or their body parts

สีขี้ม้า	[sǐ:.khí:.má:]	‘color of horse’s dung’
สีงาช้าง	[sǐ:.ŋa:tchá:ŋ]	‘color of elephant tusk’
สีปีกแมลงทับ	[sǐ:.pì:k.máʔ.le:ŋ.tháp]	‘color of Beetle’s wing’
สีเลือดนก	[sǐ:.lǐə̀t.nók]	‘color of bird’s blood’
สีเลือดหมู	[sǐ:.lǐə̀t.mǔ:]	‘color of pig’s blood’

- Other

สีกรมท่า	[sǐ:.krom.máʔ.thâ:]	‘Navy blue’
สีควันบุหรี่	[sǐ:.khwan.bùʔ.rì:]	‘color of cigarette’s smoke’
สีตะกั่วตัด	[sǐ:.tàʔ.kùə̀.tàt]	‘bluish white’

สีถ่าน	[sǐː.thàːn]	‘color of coal’
สีเนื้อ	[sǐː.níə]	‘color of skin’
สียางมะตอย	[sǐː.jaːŋ.máʔ.tɔːj]	‘color of asphalt’
สีสนิมเหล็ก	[sǐː.sàʔ.nǐm.lèk]	‘color of rust’
สีหมึก	[sǐː.mǐk]	‘color of ink’
สีอิฐ	[sǐː.ʔit]	‘color of brick’

1.3 Modifying basic color term

-basic color term + modifier (adjective)

เขียวแก่	[khǎəw.kèː]	‘dark green’
ม่วงแก่	[múəŋ.kèː]	‘dark purple’
เทาแก่	[thaw.kèː]	‘dark grey’
แดงอ่อน	[dɛːŋ.ʔwəːn]	‘light sky blue’
เหลืองอ่อน	[lǎəŋ.ʔwəːn]	‘light yellow’
เขียวอ่อน	[khǎəw.ʔwəːn]	‘light green’
ฟ้าอ่อน	[fáː.ʔwəːn]	‘light sky blue’
น้ำตาลอ่อน	[námtaːn.ʔwəːn]	‘light brown’
ม่วงอ่อน	[múəŋ.ʔwəːn]	‘light purple’
ชมพูอ่อน	[tɕhompʰuː.ʔwəːn]	‘light pink’
ส้มอ่อน	[sôm.ʔwəːn]	‘light orange’
เทาอ่อน	[thaw.ʔwəːn]	‘light grey’

แดงสด	[dɛːŋ.sòt]	‘bright red’
เขียวสด	[khǎw.sòt]	‘bright green’
น้ำเงินสด	[námŋɔn.sòt]	‘bright dark blue’
ม่วงสด	[mûŋ.sòt]	‘bright purple’
แดงหม่น	[dɛːŋ.mòn]	‘foggy red’
เหลืองหม่น	[lǎw.mòn]	‘foggy yellow’
เขียวหม่น	[khǎw.mòn]	‘foggy green’
แดงเข้ม	[dɛːŋ.khêm]	‘bright red’
เหลืองเข้ม	[lǎw.khêm]	‘bright yellow’
เขียวเข้ม	[khǎw.khêm]	‘bright green’
น้ำเงินเข้ม	[námŋɔn.khêm]	‘bright dark blue’
เทาเข้ม	[thaw.khêm]	‘bright grey’
ฟ้าจาง	[fáː.tɕaːŋ]	‘pale blue’
ชมพูจาง	[tɕhɔmpɰuː.tɕaːŋ]	‘pale pink’
เทาจาง	[thaw.tɕaːŋ]	‘pale grey’
เขียวใส	[khǎw.sǎj]	‘clear green’
ฟ้าใส	[fáː.sǎj]	‘clear blue’
ชมพูใส	[tɕhɔmpɰuː.sǎj]	‘clear pink’

- basic color term + modifier (emphatic adverb)

ขาวจั๊ว [khǎ:w.tɕuǎw]

ดำปี้ดปี้ [dam.pít pít]

แดงก่ำ [dɛ:ŋ.kám]

แดงแจ๋ [dɛ:ŋ.tɕǎ:]

แดงแปริ๊ด [dɛ:ŋ.pré:t]

เหลืองอ๋อย [lǎw.ɔ̌w]

เขียวอ๋อ [khǎw.ɔ̌w]

-basic color term + modifier (name of specific objects)

ขาวไวท์บอร์ด [khǎ:w.wá:j.bò:t] ‘white board color’

แดงเลือดนก [dɛ:ŋ.lǎw.nók] ‘bird blood color’

แดงเลือดหมู [dɛ:ŋ.lǎw.mú:] ‘pig blood color’

เขียวขี้ม้า [khǎw.khí:má:] ‘horse’s dung green color’

เขียวไข่กา [khǎw.khài.ka:] ‘crow’s egg green color’

เขียวตะไคร่ [khǎw.tà?khrâi] ‘moss green color’

เขียวมรกต [khǎw.mò:rá?kòt] ‘emerald green color’

เขียวมะกอก	[khǎw.máʔ.kə:k]	‘olive green color’
เขียวหยก	[khǎw.jòk]	‘jade green color’
เขียวหัวเป็ด	[khǎw.hǔə.pèt]	‘duck’s head green color’
ฟ้าน้ำทะเล	[fá.ná:m.tháʔ.le:]	‘sea water color’
ม่วงเม็ดมะปราง	[múəŋ.mět.máʔ.pra:ŋ]	‘Marian plum pit color’
ม่วงอัญชัญ	[múəŋ.ʔan.tɕhan]	‘butterfly pea(flower)’
ม่วงอินทนิล	[múəŋ.ʔin.tháʔ.nin]	‘Inthanin flower color’

1.4 Modifying non-basic color term

- non-basic color term (basic color term + name of specific object) + modifier

สีเขี้ยวม้าแก่	[sǐ:khǎw.khî:má:kè:]	‘dark horse’s dung green’
สีแดงเลือดหมูเข้ม	[sǐ:de:ŋ.lǐət.mǔ:khêm]	‘dark pig’s blood color’
สีฟ้าน้ำทะเลอ่อน	[sǐ:fá.ná:m.tháʔ.le:ʔwə:n]	‘light sea water color’

- non-basic color term (name of specific object) + modifier

สีน้ำทะเลสด	[sǐ:ná:m.tháʔ.le:sòt]	‘bright sea water color’
สีน้ำทะเลใส	[sǐ:ná:m.tháʔ.le:sǎi]	‘clear sea water color’
สีน้ำทะเลอ่อน	[sǐ:ná:m.tháʔ.le:ʔwə:n]	‘light sea water color’
สีเลือดหมูเข้ม	[sǐ:lǐət.mǔ:khêm]	‘dark pig’s blood color’

สีเม็ดมะปรางเข้ม [sǐ:.mèt.máʔ.pra:ŋ.khêm] ‘dark Marian plum pit’

สีหยกเข้ม [sǐ:.jòk.khêm] ‘drak jade green color’

สีหยกใส [sǐ:.jòk.sǎi] ‘clear jade green color’

สีหยกอ่อน [sǐ:.jòk.ʔò:n] ‘pale jade green color’

สีอัญชันอ่อน [sǐ:.ʔan.tʃan.ʔò:n] ‘pale butterfly pea color’

-non basic color term (loan word)+ modifier

สีกะปิอ่อน [sǐ:.kàʔ.pìʔ.ʔò:n] ‘light shrimp paste color’

สีกากีเข้ม [sǐ:.ka:ki.khêm] ‘dark khaki color’

สีโอโรสอ่อน [sǐ:.ʔo:rót.ʔò:n] ‘light old rose color’

2.Foreign loan words

English loan words

โกโก้ cacao

ช็อกโกแลต chocolate

แทน tan

บลอนด์ blonde

ลูกกีวี kiwi

โอวัลติน ovaltine

โอโรส old rose

French loan words

ເບຈ	beige
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Myanmar loan words

ကာကီ	khaki
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နီဂະပီ	ngapi
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3. Non-basic color terms used for specific nouns.

/sǎ̌.dô:k.law/ is grey color and is used for describing color of old people's hair

/sǎ̌.phiə̀k/ is white color and is used for describing the animals' skin ,such as, the hind of an albino elephant.

/sǎ̌.kàʔ.liəw/ is blackish green color. Legend has it that it is the color of one of seven groups of horses which are the vehicles of God Indra.

/sǎ̌.sàʔ.wa:t/ is a greenish gray color. It is derived from comparing with sawat seeds, a round hard-shelled seed of tropical tree. The color is use describe the color of hair of Siamese cats.

/sǎ̌.nám.khâ:w/ is a foggy white color mixed with light blue similar to that of a liquid from boiling rice. It is generally used to describe the color of the blue eyes of a white Caucasian.

APPENDIX D

VIETNAMESE COLOR TERM

The order of color terms are ranked according to Berlin and Kay's theory (1969) of basic color terms evolution as follows: white, black, red, green, yellow, blue, dark blue, brown, purple, pink, orange, grey.

For color terms derived from comparing with particular objects, they are arranged in alphabetical order of Vietnamese.

Vietnamese color terms

Basic color terms

trắng	“white”
đen	“black”
đỏ	“red”
vàng	“yellow”
xanh	“GRUE”
nâu	“brown”
tím	“purple”
hồng	“pink”
xám	“grey”

Non - basic color term

1. Word combination or modification

1.1 Combining a color term with another color term

-basic color term + basic color term

đen nâu	‘brown black’
đỏ nâu	‘brown red’
đỏ tím	‘red purple’
đỏ xám	‘grey red’
vàng xanh	‘GRUE yellow’
vàng nâu	‘brown yellow’

vàng tím	‘purple yellow’
xanh đen	‘black GRUE’
xanh vàng	‘yellow GRUE’
xanh tím	‘purple GRUE’
xanh xám	‘grey GRUE’
xanh ghi	‘grey GRUE’
nâu đen	‘black brown’
nâu đỏ	‘red brown’
nâu vàng	‘yellow brown’
nâu tím	‘purple brown’
nâu xám	‘grey brown’
tím đen	‘black purple’
tím đỏ	‘red purple’
tím xanh	‘GRUE purple’
tím nâu	‘brown purple’
tím hồng	‘pink purple’
tím xám	‘grey purple’
tím ghi	‘grey purple’
hồng đỏ	‘red pink’
hồng vàng	‘yellow pink’
hồng nâu	‘brown pink’
hồng tím	‘purple pink’
hồng xám	‘grey pink’
xám vàng	‘yellow grey’

-basic color term + {conjunction} + basic color term

xanh pha vàng 'yellowish green'

tím pha hồng 'Pinkish purple'

tím pha xanh 'GRUEISH purple'

- repeating color term without a tone change

đen đen 'really black'

xanh xanh 'really GRUE'

vàng vàng 'really yellow'

hồng hồng 'really pink'

- repeating color term with a tone change

trắng trắng 'really white'

tím tím 'really purple'

xám xám 'really grey'

1.2 Using the name of specific objects as color term

- Natural object

màu bùn 'color of mud'

màu đất 'color of earth'

màu khói	‘color of smoke’
màu mây	‘color of cloud’
màu phù sa	‘color of silt’
màu rêu	‘color of moss’
màu rơm	‘color of rice stalk’
màu sương	‘color of dew’
màu thóc	‘color of paddy’

- Flowers and trees

màu cánh sen	‘color of lotus petal’
màu hoa bèo	‘color of water fern’
màu hoa bìm bìm	‘color of bind weed’
màu hoa cà	‘color of lilac flower’
màu hoa cau	‘color of areca spadix flower’
màu hoa đào	‘color of peach blossom flower’
màu hoa lau	‘color of areca-nut flower’
màu hoa lý	‘color of Pegularia flower’
màu hoa mua	‘color of corn flower’
màu hoa mười giờ	‘color of Portulaca olercea.L flower’
màu hoa rau muống	‘color of water morning glory flower’
màu hoa sim	‘color of tomentose rose myrtle’
màu hoa súng	‘color of water lily’
màu huyết dụ	‘color of Cordyline(tree)’

- Foods , fruits and drinks

màu bắc đờ	‘color of a kind of whisky’
màu bã trầu	‘color of a chew betel quid’
màu cháo lòng	‘color of pig’s tripe soup’
màu cà-fê	‘color of coffee’
màu cau chín	‘color of ripe areca-nut’

màu cốm	‘color of green rice flakes’
màu da cam	‘color of orange skin’
màu dâu ta	‘color of Mulberry’
màu dâu tây	‘color of Strawberry’
màu hạt dẻ	‘color of chestnut’
màu kem	‘color of ice cream’
màu kẹo đắng	‘color of brunt sugar candy’
màu mạch nha	‘color of Malt’
màu mận chín	‘color of ripe plum’
màu mắm tôm	‘color of shrimp paste’
màu mỡ gà	‘color of chicken fat’
màu nho	‘color of grape’
màu nhũ chấp	‘color of milk’
màu nước dưa khú	‘color of water sour vegetable’
màu nước gạo	‘color of a liquid from boiling rice’
màu sô-cô-la	‘color of chocolate’
màu sữa	‘color of milk’

- Precious stones and minerals

màu bạc	‘color of silver’
màu chì	‘color of lead’
màu da đồng	‘color of copper surface’
màu đồng	‘color of copper’
màu hổ phách	‘color of amber’
màu huyền	‘color of jet’
màu ngọc	‘color of gem’
màu ngọc bích	‘color of emerald’
màu ngọc lam	‘color of turquoise’
màu ngọc lưu ly	‘color of crystal gem’
màu ngọc thạch	‘color of jade’
màu ngọc trai	‘color of pearl’

màu thủy ngân 'color of quicksilver'

- Animals or their body parts

màu cánh gián 'color of cockroach's wing'

màu cánh kiến 'color of ant's wing'

màu cánh trả 'color of Halcyon's wing'

màu cứt ngựa 'color of horse's dung'

màu da bò 'color of cow skin'

màu gan gà 'color of chicken liver'

màu hoàng yến 'color of canary bird'

màu lông chuột 'color of rat's hair'

màu lông gà con 'color of young chicken's hair'

màu mắt mèo 'color of cat's eye'

màu ngói 'color of Turtledove(bird)'

màu tiết dê 'color of goat's blood'

- Other

màu da 'color of skin'

màu gạch 'color of brick'

màu gạch cua 'color of crab-roe'

màu gỗ 'color of wood'

màu gụ 'color of Sindora wood'

màu hắc ín 'color of tar'

màu lúa đồng 'color of paddy field'

màu son 'color of lipstick'

màu tàn thuốc lá 'color of cigarette smoke'

màu xi măng 'color of cement'

2.3 Modifying basic color term

-basic color term + modifier (adjective)

đỏ sẫm	‘dark red’
vàng sẫm	‘dark yellow’
xanh sẫm	‘dark GRUE’
nâu sẫm	‘dark brown’
tím sẫm	‘dark purple’
hồng sẫm	‘dark pink’
da cam sẫm	‘dark orange’
ghi sẫm	‘dark grey’

đỏ đậm	‘dark red’
vàng đậm	‘dark yellow’
xanh đậm	‘dark GRUE’
nâu đậm	‘dark brown’
tím đậm	‘dark purple’
hồng đậm	‘dark pink’
xám đậm	‘dark grey’
ghi đậm	‘dark grey’

đỏ thẫm	‘dark red’
vàng thẫm	‘dark yellow’
xanh thẫm	‘dark GRUE’
tím thẫm	‘dark purple’
hồng thẫm	‘dark pink’
ghi thẫm	‘dark grey’

đỏ nhạt	‘light red’
vàng nhạt	‘light yellow’
xanh nhạt	‘light GRUE’

nâu nhạt	‘light brown’
tím nhạt	‘light purple’
hồng nhạt	‘light pink’
ghi nhạt	‘light grey’
đỏ tươi	‘bright red’
vàng tươi	‘bright yellow’
nâu tươi	‘bright brown’
tím tươi	‘bright purple’
hồng tươi	‘bright pink’
vàng chết	‘foggy yellow’
nâu chết	‘foggy brown’
tím chết	‘foggy purple’
xanh già	‘dark GRUE’
xanh non	‘light GRUE’
nâu non	‘light brown’
tím non	‘light purple’
nâu sáng	‘bright brown’
ghi sáng	‘bright grey’
vàng xỉn	‘foggy yellow’
xanh xỉn	‘foggy GRUE’
vàng cháy	‘brunt yellow’
xanh mới	‘bright GRUE’
xanh nhợt	‘pale GRUE’

xanh tối ‘dark GRUE’

tím lợt ‘pale purple’

-basic color term + modifier (emphatic adverb)

trắng đục ‘muddy white’

đỏ đun ‘red (fire)’

-basic color term + modifier (name of specific objects)

trắng ngà ‘white of elephant’s tusk color ’

đen than ‘black of coal color ’

đỏ bã trầu ‘red of a chewed betel quid color ’

đỏ cờ ‘red of flag color’

đỏ gạch ‘red of brick color ’

đỏ nhung ‘red of velvet color ’

vàng chanh ‘yellow of lemon color ’

vàng hoa hiên ‘color of Day-lily color’

vàng hoàng yến ‘color of Canary’s wing color’

vàng kem ‘yellow of ice cream’

vàng lá ‘yellow of leaf color ’

vàng lông gà con ‘yellow of young chicken’s hair ’

vàng nghệ ‘yellow of turmeric color ’

vàng rơm ‘yellow of straw color’

xanh bộ đội ‘GRUE of soldier’s shirt color’

xanh cút ngựa	‘GRUE of horse’s dung color’
xanh cánh trả	‘GRUE of Halcyon’s wing color’
xanh cỏ úa	‘GRUE of grass color’
xanh cổ vịt	‘GRUE of duck’s head color’
xanh cốm	‘GRUE of green rice flakes color’
xanh công an	‘GRUE of police’s shirt color’
xanh công nhân	‘GRUE of worker’s shirt color’
xanh da trời	‘GRUE of sky color’
xanh dương	‘GRUE of sky color’
xanh lá cây	‘GRUE of leaf color’
xanh lá mạ	‘GRUE of rice seedling leaf color’
xanh mắt mèo	‘GRUE of cat’s eye color’
xanh mực cuu long	‘GRUE of ink color’
xanh nõn chuối	‘GRUE of banana leaf young color’
xanh ngọc	‘GRUE of gem color’
xanh nước biển	‘GRUE of sea water color’
xanh rêu	‘GRUE of moss color’
xanh sinh viên	‘GRUE of student’s uniform color’
xanh than	‘GRUE of coal color’
xanh trứng sáo	‘GRUE of Myna’s egg color’
xanh xỉ lâm	‘GRUE of a kind of cloth’
nâu da bò	‘brown of cow’s skin color’
nâu đất	‘brown of earth color’
nâu hạt dẻ	‘brown of chestnut color’
nâu tây	‘brown of Western cloth’
tím hoa cà	‘purple of lilac flower color’
tím hoa rau muống	‘purple of water morning glory flower’
tím hoa sim	‘purple of tomentose rose myrtle’
tím Huế	‘purple of name of the former capital located in central Vietnam’

tím mực	‘purple of ink color ’
tím nho	‘purple of grapes color ’
tím than	‘purple of coal ’
hồng cánh sen	‘pink of lotus petal color ’
hồng nhung	‘pink of velvet color’
hồng xác pháo	‘pink of pieces of fire crackers’
ghi chanh	‘grey of lemon color ’
ghi đá	‘grey of stone color’
ghi Hàn Quốc	‘grey of a kind of cloth from South Korea’

2.4 Modifying non-basic color term

- non-basic color term (basic color term + basic color term) + modifier

đỏ nâu đậm	‘dark brown red’
đỏ nâu nhạt	‘light brown red’
vàng nâu sẫm	‘dark brown yellow’
vàng nâu nhạt	‘light brown yellow’
xanh tím đậm	‘dark purple GRUE’
xanh tím nhạt	‘light purple GRUE’
nâu đỏ nhạt	‘light red brown’
nâu vàng đậm	‘dark yellow brown’
nâu tím nhạt	‘light purple brown’
tím xanh sẫm	‘dark GRUE purple’
tím hồng đậm	‘dark pink purple’

tím hồng them	‘dark pink purple’
tím hồng nhạt	‘light pink purple’
hồng tím đậm	‘dark purple pink’
hồng tím nhạt	‘light purple pink’

- non-basic color term (basic color term + name of specific object) +
modifier

đỏ bã trầu sẫm	‘dark betel nut (red) color’
vàng đất đậm	‘dark earth (yellow) color’
vàng đất nhạt	‘light earth (yellow color’
xanh bộ đội tươi	‘bright soldier’s shirt color’
xanh cỏ úa đậm	‘dark grass color’
xanh cốm đậm	‘dark green rice flake color’
xanh cốm già	‘dark green rice flake color’
xanh cốm nhạt	‘light green rice flake color’
xanh cốm sẫm	‘dark green rice flake color’
xanh công an nhạt	‘light police’s shirt color’
xanh công nhân nhạt	‘light worker’s shirt color’
xanh cút ngựa nhạt	‘light horse’s dung color’
xanh cứu long nhạt	‘light ink color’
xanh cứu long sẫm	‘dark ink color’

xanh da trời đậm	‘dark sky color’
xanh da trời sẫm	‘dark sky color’
xanh da trời nhạt	‘light sky color’
xanh da trời tươi	‘bright sky color’
xanh da trời thẫm	‘dark sky color’
xanh dương đậm	‘dark sky color’
xanh lá cây đậm	‘dark leaf color’
xanh lá cây già	‘dark leaf color’
xanh lá cây non	‘light leaf color’
xanh lá cây nhạt	‘light leaf color’
xanh lá cây sẫm	‘dark leaf color’
xanh lá cây tươi	‘bright leaf color’
xanh lá mạ sẫm	‘dark rice seedling leaf color’
xanh lá mạ nhạt	‘light rice seedling leaf color’
xanh ngọc già	‘dark gem color’
xanh nước biển đậm	‘dark sea water color’
xanh nước biển nhạt	‘light sea water color’
xanh nước biển sẫm	‘dark sea water color’
xanh nõn chuối đậm	‘dark young banana leaf color’
xanh nõn chuối nhạt	‘light young banana leaf color’
xanh rêu chết	‘dark moss color’
xanh rêu nhạt	‘light moss color’
xanh rêu sáng	‘bright moss color’
xanh rêu sẫm	‘dark moss color’

xanh xỉ lâm đậm	‘dark (GRUE) a kind of cloth color’
xanh xỉ lâm nhạt	‘light (GRUE) a kind of cloth color’
nâu đất nhạt	‘light earth color’
nâu gạch sẫm	‘dark brick color’
tím hoa sim đậm	‘dark tomentose rose myrtle’
tím Huế nhạt	‘light (purple) name of the former capital located in central Vietnam’
tím than thẫm	‘dark coal(purple) color’

- non-basic color term (name of specific object) + modifier

màu bã trầu sẫm	‘dark betel nut color’
màu cà-fê cháy	‘brunt coffee color’
màu cánh sen nhạt	‘light lotus petal color’
màu cánh sen đậm	‘dark lotus petal color’
màu cốm cháy	‘brunt rice green flake color’
màu cốm già	‘dark rice green flake color’
màu cốm nhạt	‘light rice green flake color’
màu cơm cháy	‘brunt rice color’
màu đất đậm	‘dark earth color’
màu đất non	‘pale earth color’
màu đất sét	‘dark earth color’
màu gạch già	‘dark brick color’
màu gạch non	‘brick color’
màu gạch nung	‘brick color’
màu gạch cua sẫm	‘dark crab-roe color’
màu kem nhạt	‘light ice cream color’
màu ngọc nhạt	‘light gem color’
màu than non	‘pale coal color’
màu tiết dê nhạt	‘light goat blood color’

màu tiết dê thẫm ‘dark goat blood color’

- non basic color term (loan word)+ modifier

màu be vàng ‘yellow beige’

màu ghi xanh ‘GRUE grey’

- non basic color term (loan word)+ basic color term

ghi vàng ‘yellow grey’

ghi xanh ‘GRUE grey’

ghi tím ‘purple grey’

ghi xám ‘grey grey’

be vàng ‘yellow beige’

be hồng ‘pink beige’

2.Foreign loan words

English loan words

cà phê ‘coffee’

kem ‘ice cream’

sôcôla ‘chocolate’

French loan words

màu be “beige”

màu ghi “grey”

Myanmar loan words

màu ka-ki “khaki”

3. Non-basic color terms used for specific nouns.

huyền means jet-black color and is used for describing an eye, e.g.,
mắt huyền ‘ a jet-black eye’

mun means ebony black color and is used with a cat, e.g., *mèo mun*
‘ an ebony cat’

mực means ink color and is used with a dog, e.g., *chó mực* ‘a black
dog’

ô means raven black color and it is used with horse, e.g.,
ngựa ô ‘ a raven horse’

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