

# A Study on the Color Characteristics of Preferred Clothing Textiles of Female College Students - A Comparison of Blouses and Shirts -

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**Abstract :** This study analyzed and compared the color characteristics of preferred textiles for blouses and shirts of college students. After the survey of preference in fabrics for blouses and shirts of college students according to season, colors of preferred fabrics were analyzed. Spectral data were measured and a chromaticity diagram was drawn. The color of shirt fabric that college students preferred in the spring/fall was PB (Purple-Blue) and light shades, and in summer, PB color and pale shades. Generally achromatic black or a simple color that is close to an achromatic color, light and soft shades were preferred. For blouse fabric, PB, d (dull) and g (grayish) tones were preferred in spring/fall, G (Green) and lt., d. were preferred in summer. Achromatic white and medium, soft shaded chromatic especially greenish colors were preferred. In spring · fall, regardless of the clothing item, PB was the most preferred color. Y (Yellow) was the most preferred color for shirts, and for blouses, R (Red) was the most preferred. For achromatic color, black is preferred for shirts, white is preferred for blouses. In summer, the color of preferred shirt fabric was PB, and blouse fabric had a lot of G color. College students prefer simple colors which are close to achromatic colors, and light and soft color were preferred for shirt fabric and they preferred various, medium shaded and closer to pure colors for blouses because college students tend to consider the aesthetic side as important and usually wear blouses less often than shirts.

**Key Words :** color, textile, blouses, shirts, season, female college student

## I. Introduction

Apparel makers analyze the preference in clothing products of consumers and make an effort to satisfy the needs of consumers sufficiently and produce a consumer oriented product by reflecting these results immediately on developing a new clothing product. Recently, the differentiation of textiles is the most important factor to develop clothing product and consumers consider textiles very important as they evaluate the quality of product. Color is the first consideration among the various characteristics of a fabric when customers select their favorite clothing(Kim & Na, 2002). Therefore, it is

necessary to have an analysis of the color characteristics of preferred clothing textiles by consumers in the area of fashion marketing or textile design because color is a major factor when customers purchase clothing product.

In previous research on the color of clothing, there has been a lot of researches such as color preference according to the age of consumers or preference according to season (Kim & Jung, 2002; Lee & Kim, 2002; Kim, 2003). These studies investigated the preferred color itself rather than the color of the clothing product and there is research on preferred color of clothing textiles such as color preference for various images (Choo & Kim 2002; Kang & Kim, 1996), color preference of

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women in their twenties (Kim *et al.*, 2000; Park, 1995; Park, 2002), women and men in their twenties (Eun, 1996), men in their twenties (Ryu & Kim, 2001), and adult women (Kim *et al.*, 2000). Also, there is a difference between preferred color and clothing color (Kim, 2002; Lee & Kim, 2003).

These were studies about the preferred clothing color, however the research was performed by presenting colored papers or color chips to the subjects instead of real dyed fabrics, so they could not consider texture and color together. For analyzing images of clothing textiles, both texture and colors need to be considered. A study that used real clothing textiles as samples is Kim's (2004) research on the comparison of the color of slacks and skirt fabrics that college students preferred.

The need for an analysis of the preference in clothing products of young adults such as college students has been increasing because they are vanguard of the entire fashion trend these days and their power of influence has been gradually on the rise.

Therefore, this research aims to analyze and compare the color characteristics of preferred fabrics for shirts and blouses according to season as part of an investiga-

tion into the characteristics of preferred clothing fabrics of college student for various clothing items.

The purpose of this research is the following:

1. Analyze the color of preferred textiles for blouses and shirts of college students according to season.
2. Compare the color characteristics of preferred clothing textiles of blouses and shirts.

## II. Methods

### 1. Specimen

The samples for evaluation of color characteristics totaled 40 kinds of preferred clothing fabrics. Twenty kinds of fabrics were chosen as preferred shirt fabrics according to season in the survey of previous research (Kim and Na, 2002), and another 20 kinds of fabrics were chosen as preferred blouse fabrics from a pre-study of this research. Characteristics of preferred fabrics at each season are presented in <Table 1> to <Table 4>.

In the survey of the preference in clothing fabrics in previous research (Kim & Na, 2002), 95 female students who study clothing at H College situated in Chung Nam

<Table 1> Color characteristics of preferred fabrics for spring/fall shirts

rank	fabric name	fiber content	Thick ness (mm)	weave	color name	L#	a*	b*	ΔE	x	y	H	v/c
1	Two and two check	wool	0.38	plain	Light Brownish Gray	60.49	0.09	8.41	30.54	0.3326	0.3389	2.77Y	5.88/1.18
2	Charmeuse	silk	0.21	satın	Dark Grayish Blue	20.88	1.12	1.12	69.75	0.2708	0.2705	5.03PB	2.03/1.71
3	Cambric	flax	0.23	plain	Pale Orange Yellow	80.17	2.11	17.98	18.08	0.3514	0.3531	0.38Y	7.88/2.70
4	Drill	cotton	0.38	twill	Black	16.11	-0.79	-1.26	74.51	0.2986	0.3099	4.89PB	1.55/0.36
5	Poplin	cotton	0.20	plain	Light Greenish Gray	81.68	-6.45	4.03	10.8	0.3085	0.3296	1.88G	8.03/1.04
6	Pique	polyester	0.63	double	Blackish Blue	15.8	-0.24	-9.21	75.03	0.2529	0.2593	2.66PB	1.52/1.96
7	Oxford	cotton	0.45	plain	Dark Yellowish Green	41.37	-20.59	14.42	54.35	0.3032	0.4014	0.73G	4.01/4.22
8	Faille	polyester	0.28	plain	Strong Yellow	75.85	5.59	57.02	55.94	0.4385	0.4288	1.74Y	7.44/8.58
9	Lawn	cotton	0.22	plain	Yellowish White	89	-0.78	7.16	4.19	0.325	0.3298	9.90YR	8.79/1.02
10	Gingham	silk	0.20	plain	Light Bluish Gray	80.32	0.5	-4.1	10.31	0.3023	.3073	6.50PB	7.89/1.40

Province, South Korea were surveyed. Subjects chose three kinds of preferred clothing fabrics for each season out of 120 different fabrics presented in a fabric swatch book (1997) by considering various characteristics of fabrics after sufficient visual and tactile observation. Then points were assigned by the order of preference, the most preferred fabric was given 3 points, the second 2 points and the third 1 point. Weight of frequency and percentage were calculated and finally the top 10 kinds of preferred fabrics were chosen for each season.

## 2. Analysis method

To analyze the characteristics of fabric color, Color Quest Sphere II (Hunter Lab; U.S.A) was used and spectral data were measured. Measured color characteristics were the color name, color #, L# (lightness), a\* (direction of red, green), b\* (direction of yellow, blue), x, y (chromaticity coordinates), H (hue), v (value)/c (chroma). Using measured results, color and color tones of preferred fabrics were analyzed. Color tones were classified by the ISCC-NBS method. Achromatic colors were classified into 5 kinds of tones and chromatic colors were classified into 11 tones. According to the

season of each clothing item, L, a, b, values' statistics (mean of standard deviation, maximum and minimum value) were compared and  $\Delta E$  values from white point were calculated. A chromaticity diagram (KS K 0613; Park, 1989; Kim, 1996) was drawn.

## III. Results and Discussion

### 1. Color of preferred textiles according to clothing item

The color characteristics of preferred fabrics for blouses and shirts in each season are presented from <Table 1> to <Table 4>. These results were analyzed and compared according to season.

#### 1) Color of preferred textiles for shirts

Color names of the most preferred fabric of shirts were light brownish gray (Munsell value: 2.77Y, 5.88/1.18) in spring/fall <Table 1> and light greenish gray (1.88G 8.03/1.04) in summer <Table 2>. Lab values were L = 60.49, a = 0.09, b = 8.41 in spring/fall and L = 81.68, a = -6.45, b = 4.03 in summer. This means

<Table 2> Color characteristics of preferred fabrics for summer shirts

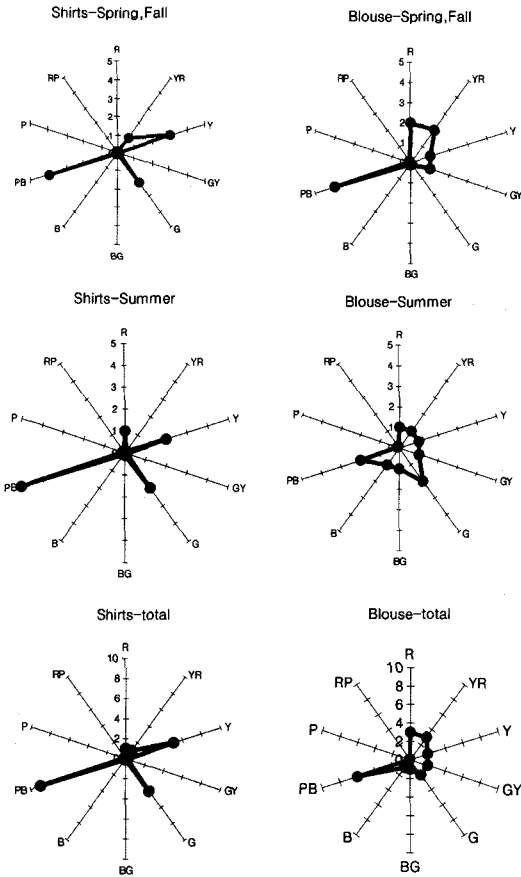
rank	fabric name	fiber content	Thickness (mm)	weave	color name	L#	a*	b*	$\Delta E$	x	y	H	v/c
1	Poplin	cotton	0.20	plain	Light Greenish Gray	81.68	-6.45	4.03	10.8	0.3085	0.3296	1.88G	8.03/1.04
2	Gingham	silk	0.20	plain	Light Bluish Gray	80.32	0.5	-4.1	10.31	0.3023	.3073	6.50PB	7.89/1.40
3	Faille	polyester	0.28	plain	Strong Yellow	75.85	5.59	57.02	55.94	0.4385	0.4288	1.74Y	7.44/8.58
4	Cambric	flax	0.23	plain	Pale Orange Yellow	80.17	2.11	17.98	18.08	0.3514	0.3531	0.38Y	7.88/2.70
5	Georgette	polyester	0.29	plain	Pale Green	72.75	-9.05	4.26	19.85	0.3044	0.3336	3.67G	7.12/1.52
6	Poplin	cotton	0.17	plain	Very Pale Blue	84.47	-0.9	-7.48	7.43	0.2939	0.3017	3.96PB	8.32/2.35
7	Charmeuse	silk	0.21	satin	Dark Grayish Blue	20.88	1.12	1.12	69.75	0.2708	0.2705	5.03PB	2.03/1.71
8	Shirting	cotton	0.21	plain	Bluish White	88.15	-0.64	-4.24	2.63	0.301	0.3084	3.73PB	8.70/1.48
9	Drill	cotton	0.38	twill	Black	16.11	-0.79	-1.26	74.51	0.2986	0.3099	4.89PB	1.55/0.36
10	Broadcloth	cotton	0.33	plain	Light Grayish Red	64.43	19.78	6.18	32.69	0.3631	0.3137	1.43R	6.29/4.92

that yellowish color was preferred in spring/fall fabrics, and on the other hand, summer fabrics had a little

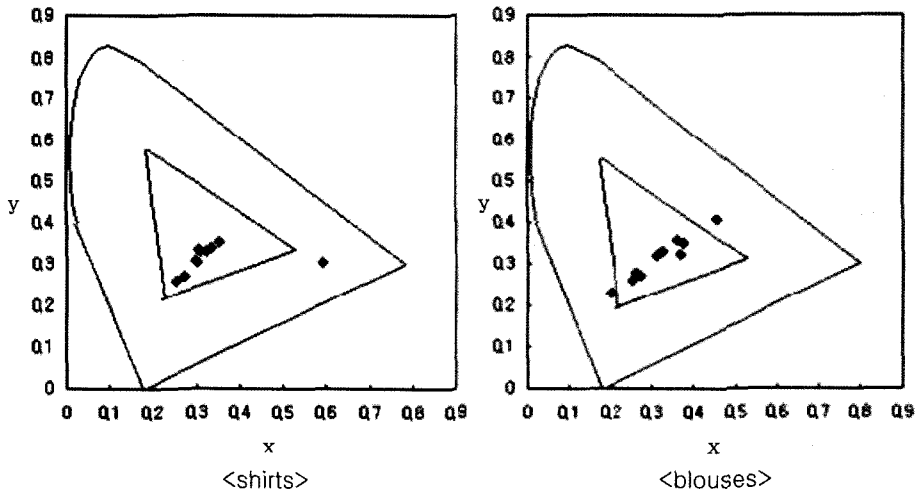
brighter, less chromatic and more greenish colors than spring/fall fabrics.

By classifying the colors of 10 preferred kinds of shirt fabrics in each season <Figure 1>, spring/fall fabrics had 4 kinds of PB color, 3 kinds of Y and 2 kinds of G color. Summer fabrics had 5 kinds of PB, 2 kinds of both G and Y colors. Consequently, as the color of shirt fabrics, PB color was shown to be the most preferred color regardless of season, and then Y and G.

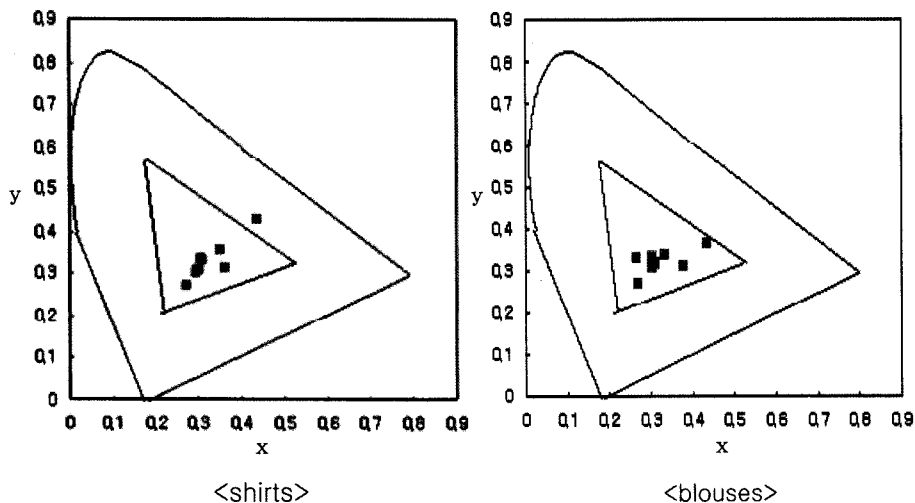
The values of x and y of color in each season are shown in chromaticity diagrams. As shown at <Figure 2> and <Figure 3>, the colors of shirt fabric were all adjacent to the coordinates of standard brightness C ( $x = 0.3101$ ,  $y = 0.3165$ ) regardless of season. Therefore it was confirmed that these colors are mostly mixed colors that are close to an achromatic color. Additionally, this means that these colors are mostly a blue added achromatic color. In the results of previous research, preferred colors that were chosen by men and women in their twenties were blue and achromatic colors, too (Eun, 1996; Ryu and Kim, 2001; Lee and Kim, 2003). It is supposed that shirts are largely worn by college students, so they prefer achromatic colors that are simple and harmonize with colors of other clothing easily. Also, other characteristics of fabric that are preferred for spring/fall and summer shirts which were presented in



<Figure 1> Color of preferred fabric according to clothing item and season.



<Figure 2> Chromaticity diagram of preferred fabrics in spring/fall.



<Figure 3> Chromaticity diagram of preferred fabrics in summer.

<Table 3> Color and shade of preferred fabrics for shirts and blouses

Color tone	R	YR	Y	GY	G	BG	B	PB	P	RP	total
p			◆◇		◇			◇			7
lt.g	◇		●		○○			●			2
g	●							●			2
dk.g								◆◇ ●○			4
lt			◆ ○		◆◇	○		◆◇ ○			8
d	●○	○●					○				5
dk					◆						1
b											0
s			◆◇								2
dp											0
w		◆ ●		●○	○			◇			6
bk								◆◆◇ ●			4
total	4	4	7	2	7	1	1	15	0	0	

shirts : spring/fall - ◆ summer - ◇  
 blouses: spring/fall - ● summer - ○

<Table 1> and <Table 2> are mostly cotton or polyester in fiber and plain fabric weave. Therefore, this result represents a similar trend of practical wear and a relaxed color character.

Next, the analysis of color tone of preferred shirt fabric is shown in <Table 3>. Classification of tones was done by a method using ISCC-NBS (Park, 1989). The overall trend of shade had a lot of lt (light), p (pale) and

achromatic bk (black) tones. In each season, there were lt (light) tones in the spring/fall, and mostly light and soft p (pale) tones in the summer. In previous research on preferred clothing color of adult women (Kim *et al.*, 2000), similar results were shown that p (pale) was the most favorite tone in the spring and summer seasons.

As shown above, regarding the preferred color of fabric of shirts, spring/fall fabrics had PB color and lt (light) tones for the part most, and summer fabrics had a lot of PB and p (pale) tones which are softer than those of the spring/fall. Finally, it can be summarized that preferred colors of the spring/fall and the summer fabric for shirts is an achromatic color such as black, or a simple color that is close to an achromatic color of a light and soft tone.

## 2) Color of preferred fabrics for blouses

The color of the most preferred blouse fabric was dark grayish blue (5.03 PB, 2.03/1.71) in the spring/fall and pale green (3.67 G, 7.12/1.52) in the summer as shown in <Table 4> and <Table 5>. The values of L, a, and b of preferred fabrics in the spring/fall were 20.88, 1.12, 1.12, and in summer, it was 72.75, -9.05, 4.26. This means that the color of summer blouse fabric is a

brighter and stronger green and yellow compared with the spring/fall.

By classifying the color of preferred fabric of blouses in each season, spring/fall fabrics had 3 kinds of PB color and 2 kinds of YR, and summer fabrics had 3 kinds of G and 2 kinds of PB color. Therefore spring/fall fabrics had mostly PB color, and G was the most preferred color in summer.

Next, the results of a comparison of spring/fall and summer preferred fabrics of blouses in each season are shown in the chromaticity diagram (Figure 2, 3). Fabric that is preferred in the spring/fall appeared to have generally a variation of colors that is close to pure color compared with shirt fabrics that we mentioned earlier. This means that blouse fabric show more brilliant colors than those of shirts. That is why college students tend to consider an aesthetic side important when they purchase blouses and prefer characteristic colors because the blouse is less frequently worn and worn for special occasions. In a previous research (Kim, 2004), college students showed to prefer variation of colors and consider an aesthetic side more important for skirts than for slacks, which was similar to the result of this study. Also, other characteristics of fabric which was preferred

<Table 4>Color characteristics of preferred fabrics for spring/fall blouses

rank	fabric name	fiber content	Thickness (mm)	weave	color name	L#	a*	b*	ΔE	x	y	H	v/c
1	Charmeuse	silk	0.22	satin	Dark Grayish Blue	20.88	1.12	1.12	69.75	0.2708	0.2705	5.03PB	2.03/1.71
2	Chambray	cotton	0.37	plain	Grayish Blue	49.03	-4.01	-4.01	41.73	0.2617	0.2788	0.72PB	4.75/3.42
3	Lawn	cotton	0.22	plain	Yellowish White	89	-0.78	7.16	4.19	0.325	0.3298	9.90YR	8.79/1.02
4	Foulard	cotton	0.33	twill	Moderate OrangeYellow	70.05	17.48	50.53	54.26	0.4568	0.4058	7.26YR	6.84/8.86
5	Amunzen	polyester	0.50	crepe	Light Grayish Yellowish Brown	62.08	2.45	16.24	31.38	0.3572	0.3565	0.65Y	6.04/2.47
6	Woolvoile	wool	0.34	plain	Reddish Brown	32.99	28.71	22.97	67.13	0.4968	0.3457	9.57R	3.21/6.84
7	Paisley	cotton	0.15	plain	Grayish red-dish Brown	32.62	9.85	5.8	58.79	0.3656	0.3249	7.68R	3.18/1.99
8	Crepe de chine	silk	0.26	plain	White	90.92	-1.34	1.88	1.73	0.3118	0.3208	6.50GY	8.98/0.26
9	Pique	polyester	0.63	double	Blackish Blue	15.8	-0.24	-9.21	75.03	0.2529	0.2593	2.66PB	1.52/1.96
10	Satin	silk	0.17	satin	Nude Pale Blue	54.32	-10.82	-34.1	48.71	0.2015	0.2292	0.12PB	5.27/8.91

&lt;Table 5&gt; Color characteristics of preferred fabrics for summer blouses

rank	fabric name	fiber content	Thickness (mm)	weave	color name	L#	a*	b*	ΔE	x	y	H	v/c
1	Georgette	polyester	0.29	plain	Pale Green	72.75	-9.05	4.26	19.85	0.3044	0.3336	3.67G	7.12/1.52
2	Charmeuse	silk	0.22	satin	Dark Grayish Blue	20.88	1.12	1.12	69.75	0.2708	0.2705	5.03PB	2.03/1.71
3	Crepe de chine	silk	0.26	plain	White	90.92	-1.34	1.88	1.73	0.3118	0.3208	6.50GY	8.98/0.26
4	Crepe	polyester	0.30	plain	Very Light Bluish Green	76.81	-25.51	-1.42	28.7	0.2666	0.3314	4.43BG	7.53/4.95
5	Chiffon	polyester	0.19	plain	Moderate Orange	65.73	23.41	23.41	39.4	0.4352	0.366	2.47YR	6.40/7.35
6	Organdy	polyester	0.10	plain	Moderate Pink	68.62	27.07	8.49	34.94	0.3796	0.3123	1.30R	6.70/6.70
7	Delaine	wool	0.35	plain	White	91.3	-1.15	0.58	2.9	0.3096	0.3182	34G	9.02/1.07
8	Gingham	silk	0.20	plain	Light Bluish Gray	80.32	0.5	-4.1	10.31	0.3023	0.3073	6.50PB	7.89/1.40
9	Seersucker	cotton/polyester	0.41	plain	Very Pale Green	77.66	-7.99	2.71	15.01	0.3031	0.3283	6.06G	7.62/1.30
10	Two and two chek	wool	0.39	plain	Light Brownish Gray	60.49	0.09	8.41	30.54	0.3326	0.3389	2.77Y	5.88/1.18
11	Voile	cotton	0.21	plain	Moderate Greenish Blue	52.64	-16.44	-9.91	41.73	0.2481	0.3004	0.86B	5.18/4.24

for blouses are presented in <Table 3> and <Table 4>. By these results, various fiber contents such as cotton and silk and various weave were preferred in the spring/fall, and drapable polyester and silk fiber and plain weaves which have permeability of thin layers were preferred in the summer. Therefore, it is understood that blouse fabrics have more various characteristics than those of shirts. Consequently, we can conclude that the aesthetic choice is very important factor when college students select blouses.

As a result of analyzing the tone of preferred fabrics, it has been shown that overall trend of preferred fabrics of blouses had many d (dull), lt (light), p (pale) and achromatic W (white) tones and there were almost no differences between seasons. For achromatic colors, white color fabric was chosen and for chromatic colors, medium, soft and light tones were preferred.

As shown above, preferred blouse fabrics in the spring/fall had PB color, d, g (grayish) and W tone, and summer fabrics had G color, lt and d tones. Therefore, we can conclude that fabrics for blouses presented achromatic white color and medium, softly shaded

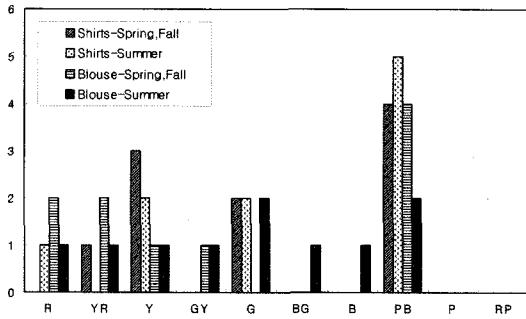
chromatic colors, and a greenish color is preferred for blouse fabrics, especially in the summer.

## 2. Comparison of color according to season

Color differences were analyzed by the seasons for each clothing item and these results are presented in <Figure 4>.

### 1) Color of preferred spring/fall fabric

Color was classified and by the results, in the spring/fall, shirt fabric had 4 kinds of PB color, 3 kinds of Y and 2 kinds of G color, and blouse fabric had 4 kinds of PB, 2 kinds of both R and YR colors. Therefore, spring/fall fabrics had mostly PB, Y was preferred for shirts and, R color was mainly preferred for blouses. A previous research (Kim, 2004) showed the result that spring/fall slacks fabric had mostly B, PB, and Y colors, and skirts had PB, Y and YR colors. It can be concluded from this result that PB was the commonly preferred color of college students regardless of top or bottom



<Figure 4> Color classification of preferred fabrics.

clothing, and cold colors that give cool feelings were preferred for shirts and slacks, and relatively warm colors were preferred for blouses and skirt.

Mean, standard deviation, maximum and minimum of Lab value of preferred fabrics in each clothing item are shown in <Table 6>. Values for Lab of preferred fabric for shirts are 56.40, -1.94, 9.55, and those for blouses are 51.76, 4.24, 5.83, which showed the same trend in the most preferred color fabric in each season. Bright, greenish and yellowish colors were preferred in the spring/fall, and relatively less bright, reddish and yellowish colors were preferred for blouses than shirts.

Color characteristics were compared according to clothing item in chromaticity diagrams <Figure 2 and Figure 3>. Various colors close to pure colors were preferred for blouse fabrics and represented a more

brilliant color trend than that of shirts.

<Table 5> shows color shades of preferred fabrics in the spring/fall. Shirt fabrics had p, lt, and Bk shades, and blouses had a lot of d, lt, p, and W shades. This shows that there was a small amount of difference between shirts and blouses. But a little bit strong toned chromatic color was preferred for blouse fabric and regarding achromatic colors, black was preferred for shirts and white for blouses.

Comparing the colors of shirt and blouse fabrics in the spring/fall, blouse fabric had a little less bright and warmer color like R (Red) than shirt fabric and had a wider range of color and shade. Therefore, it can be supposed that college students consider an aesthetic side an important factor when they select blouses.

**2) Color of preferred summer fabric**

Colors of preferred summer fabric were compared according to clothing item. Shirts fabric had 5 kinds of PB and 2 kinds of G and Y color, and for blouses, 3 kinds of G, 2 kinds of PB colors were preferred.

Mean, standard deviation, maximum and minimum of Lab value in each clothing item are shown at <Table 6>. Values of Lab of preferred fabric for shirts are 66.92, 1.12, 7.35, and those for blouses are 68.92, -0.84, 3.22. L value that shows brightness showed a slight difference

<Table 6> Lab value of preferred fabrics according to season

season	Variables	Mean	S.D.	Maximum	Minimum
Spring, Fall	L shirts	56.10	29.80	89.00	15.80
	L blouses	51.76	26.54	90.92	15.80
	a shirts	-1.94	7.19	5.59	-20.59
	a blouses	4.24	11.49	28.71	-10.82
	b shirts	9.55	18.59	57.02	-9.21
	b blouses	5.83	22.00	50.53	-34.10
Summer	L shirts	66.50	26.14	88.15	16.11
	L blouses	68.92	19.80	91.30	20.88
	a shirts	1.12	7.75	19.78	-9.05
	a blouses	-0.84	15.31	27.07	-25.51
	b shirts	7.35	18.85	57.02	-7.48
	b blouses	3.22	8.51	23.41	-9.91



between clothing items, and a little stronger greenish and less yellowish colors were preferred for blouse fabric than for shirt fabric.

Next, the results a comparison of chromaticity diagrams showed a similar trend to that of the spring/fall, where in the color of blouse fabric is more nearer to a pure color than that of shirt fabric.

The shades of preferred fabric for summer were mostly p, lt, d, W. The result of a comparison according to clothing item revealed that shirts had many colors of p tone, and blouses had many colors of lt, and d tones which are generally light and soft shades, but blouse fabric had a little stronger shade similar to the trend of the spring/fall.

Overall, the color of preferred summer fabric showed a lot of cold color. On the other hand, an interesting result is that blouse fabric for summer showed especially a lot of greenish color that is different to shirts. Also, by analyzing fabric characteristics, thin and plain weaved fabrics that have air permeability were mostly preferred in summer. Therefore, we can conclude that the sensations of refreshment and coolness are very important factors for summer fabrics, and this is confirmed by color trend, too.

## IV. Conclusion

This study analyzed the color of generally preferred clothing fabrics for blouses and shirts of college students according to season and came to the following conclusions.

1. Colors of shirt fabric that college students prefer in the spring/fall is PB color, light shade, and in summer, PB color and pale shade. Generally, achromatic black or a simple color that is close to an achromatic color and light and soft shade were preferred for shirt fabric in the spring/fall and summer. By the results of analyzing fabric characteristics such as fiber content and weave, generally, preferred shirt fabrics have practical and relaxed characteristics.

2. For blouse fabric, PB color and dull, grayish shades was preferred in the spring/fall, and for summer, G color and shade of lt, d. Achromatic white, medium, soft shaded chromatic colors and, especially, greenish color was preferred. By analyzing fabric characteristics, generally, preferred blouse fabrics have various characteristics that represent an aesthetic character.

3. In the spring/fall, regardless of clothing item, PB was the most preferred color. Y was the most preferred color for shirts, and for blouses, R was the most preferred in the spring/fall. The preferred color for blouse fabric is closer to a solid color than that of shirts and a little more brilliant and stronger toned chromatic color than that of shirts. For an achromatic color, black is preferred for shirts and white for blouses. Generally blouses had various colors that were less bright, warmer and of various tones, so that it is supposed that blouses are chosen by considering aesthetics.

4. In summer, the color of preferred shirt fabric was PB, and for blouses fabric, Green was preferred. Blouse color was closer to a pure color than that of shirts like the result of the spring/fall. Shirt fabric had shades of p and blouses had shades of lt and d that show light and soft feelings. Blouse fabric had stronger shades than that of shirts. In addition, preferred fabric for summer had many colors that subjects can feel coolness by wearing them. The interesting thing is that summer blouse fabric had especially many greenish colors. Also, by analyzing fabric characteristics such as thickness and weave, preferred summer fabrics have characteristics that represent sensations of refreshment and coolness.

As shown above, we can summarize that college students prefer simple colors that are close to achromatic colors, and light and soft colors are preferred for shirt fabric and various, medium shaded and more solid colors for blouses since college students consider an aesthetic side more important than any other characteristic of blouses and wear blouses less often than with shirts. Additionally, we conclude that the color characteristics of preferred fabrics represent a similar overall trend to other characteristics of preferred fabrics.

The preference in clothing or fabric is a composite one, therefore, various characteristics have effects on it. In this study, color characteristics of preferred fabrics were analyzed which were chosen by a survey of overall preference in fabrics in previous research. Consequently, the results of this study could show differences to simple preferred colors.

Therefore, there is a need of research on the interaction between fabric character and color in a following study.

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