PRESCHOOL CHILDREN'S COLOR COMBINATION PREFERENCES FOR CLOTHING

By

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PREFERENCES FOR CLOTHING

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CHAPTER I

THE PROBLEM

Introduction

There is color everywhere in the world, yet little is known about an individual's reaction to color and the effect of color upon individuals, especially children (Gale, 1933). The major investigations of children's color preferences were completed in the 1930's or before (Collier, 1956) which indicates a need for more up-to-date research. Different methods for measuring color preference have been developed and color preferences may have changed since the early research was done.

Little of the early research has been done in the area of children's preferences for colors in combinations (Gale, 1933). Very seldom are colors found separate from any other color. Much of the research of color preferences have used colors abstracted from the objects in which individuals normally find them. It is not clear whether the color preferences indicated in these situations would be the same when applied to objects from everyday life (Gramza, 1969).

This study will be concerned with the color combination preferences for clothing of preschool children and how these preferences are related to age, sex, and their single color preferences. Knowledge of children's color combination preferences for clothing should help manufacturers and retailers as they produce and distribute clothing for

children. This knowledge would also assist parents in wise selection of children's clothing. Both parents and teachers would be aided by current research as they plan, select, and buy for young children.

Purpose

The purposes of this study were to determine:

1. The color combination preferences for clothing of preschool children.
2. Whether or not these preferences are related to age, sex, and single color preference.
3. The consistency of preschool children's color combination preferences for clothing by a test and retest.

The hypotheses which were examined include the following:

1. There is no marked difference in the color combination preferences for clothing of preschool children in relation to:
   (a) Age.
   (b) Sex.
   (c) Single color preference.

To measure reliability the following hypotheses were examined:

2. There is no marked difference between preschool children's single color preferences for a test and retest.
3. There is no marked difference between preschool children's color combination preferences for clothing for a test and retest.

Definition of Terms

The following definitions are presented to aid the reader.

Analogous Colors

Webster's Dictionary (1961) defines analogous colors as those which have a close relationship with respect to hue. They are next to each other on the color wheel. An example of analogous colors would be orange, red-orange, and yellow-orange.

Color

Color is a phenomena of light that enables one to differentiate otherwise identical objects (Webster's Dictionary, 1961).

Complementary Colors

Complementary colors are those that produce a neutral mixture when combined in suitable proportions (Webster's Dictionary, 1961). They are those colors which are opposite each other on the color wheel. An example of complementary colors would be red and green.

Hue

Hue is the attribute of colors that permits them to be classed as red, yellow, etc. (Webster's Dictionary, 1961).

Intensity

Webster's Dictionary (1961) defines intensity as the degree of strength of a color. It could be described as the strength of a hue compared with neutral gray.

Monochromatic Colors

Monochromatic colors are those consisting of one color (Webster's Dictionary, 1961). An example of monochromatic colors would be blue and light or dark blue.

Primary Colors

Primary colors are any of a set of colors from which all other colors may be derived (Webster's Dictionary, 1961). The primary colors are red, yellow, and blue.

Secondary Colors

Webster's Dictionary (1961) defines secondary colors as those formed by mixing primary colors in equal quantities. The secondary colors are orange, violet, and green.

Shade

Shade is defined as a color produced by a pigment having some black pigment in it (Webster's Dictionary, 1961).

Tint

Tint is defined as a color produced by a pigment having some white pigment in it (Webster's Dictionary, 1961).

Triadic Colors

Webster's Dictionary (1961) defines triadic colors as those colors constituting a group of three closely related colors. Triadic colors

are spaced regularly around the color wheel. An example of triadic colors would be red, yellow, and blue.

Value

Value is the lightness or darkness of any color (Webster's Dictionary, 1961).

CHAPTER II

REVIEW OF LITERATURE

Single Color Preference

The aesthetic significance of color has been recognized in everyday life (Burnham, Hanes, and Bartleson, 1963). Color preferences were usually connected with aesthetic appreciation. Research differed about the existence of a general order of preference for colors (Eyseneck, 1941). A combination of the data from 26 studies on preference for single colors gave an order of preference from most preferred to least preferred which was as follows: blue, red, green, violet, orange, and yellow (Burnham, et al., 1963). Color preferences have shown regular changes in definite directions with increased age. These directions continued on into adult life (Winch, 1909).

Age and Color Preference

Ellis (1900) wrote that red was the first color that young children recognized and that attracted their attention. Myers (1906) reported, in observations of a nine-month old infant, that yellow was chosen over white and that red and yellow were preferred to other colors. Red was the preferred color throughout the preschool and kindergarten years in studies by Garth and Porter (1934). The young child's love of yellow diminished with age (Ellis, 1906). Preference for red and yellow gave

way to preference for blue and green in the later years of grade school (Norman and Scott, 1952).

A five-month old infant appreciated blue less than red (McDougall, 1906). Blue was preferred more as age increased (Gesche, 1927; Hurlock, 1927; Garth and Collado, 1929; Garth and Porter, 1934). Blue was a favorite of elementary grade children but was a stronger favorite with the older children. Red and yellow followed blue in the list of preferences. The number of children who selected red, yellow, and violet diminished with increased age. Primary colors were also preferred above secondary colors (Bou and Lopez, 1953). Children in grades 1 through 12 preferred cool hues such as blue and green (Child, Hansen, and Hornbeck, 1968). In a group of college men and women, red, green, and blue received more favorable responses (Dorcus, 1929). Blue was least preferred by people under age 18, but preferred by those aged 41 and older (Jastrow, 1897).

Young children preferred light values. As age increased they began to prefer the darker values (Polson, 1926). Bou and Lopez (1953) found that elementary school children preferred dark tones, followed by normal, light, very light, and very dark.

Opinions differed as to the reliability of the young child's color preference. Hildreth (1936) wrote that the young child's preferences were unstable. When the children were retested, contradicting results emerged. These contradicting results may have been due to the children's difficulty in making final choices. They may have made selections randomly. Novelty may have played a part in an infant's color choice (Myers, 1906). Streight (1974) found that when preschool children's color preferences were retested following a six-months' interval

they had not changed. A study by Dorcus (1926) reported that college men and women had more definite color preferences than other groups tested. According to Garth and Porter (1934) discrimination of feeling for color increased with age.

Sex and Color Preference

Investigators had different opinions about sex as a determinant of color preference. Some wrote that there were no marked sex differences (Gesche, 1927; Granger, 1955). Others reported that the difference lies only in the ability to discriminate color preferences. Gesche (1927) and Garth and Porter (1934) found that males were better able to discriminate their preferences. But Ellis (1906) found that sex was of little importance as a preference determinant, but was more evident in strength than in order. That is to say, women have a greater variability in their preferences than men (Norman and Scott, 1952). Both Mercer (1925) and Guilford and Smith (1959) found that men rated colors a little higher than do women. A scale from 1 to 10 was used with 10 being the most pleasant. The men tended to use higher numbers when rating the colors.

There were some researchers who found certain differences between male and female color preferences (Winch, 1909; Dorcus, 1926; Walton, Guilford, and Guilford, 1933; Choungarian, 1968). Walton et al. (1933) found that these differences persisted consistently from year to year. They also found women's color preferences fluctuated more than the men's from one year to another.

Males showed a preference for dark values (Polson, 1926). Females preferred lighter colors (Child, et al., 1968). Jastrow (1897) found

blue and its related colors was the masculine favorite and red and its related colors was the feminine favorite. However, Mercer (1925) found red was valued more by the males than the females. In a study reported by Hurlock (1927), both sexes preferred blue first, but the female's second choice was pink. The male's second choice was violet. Garth and Collado (1929) found that both sexes agreed in placing red first, but the females valued green more highly than the males.

Cultural Differences and Color Preference

The research indicated definite cultural differences in color preferences (Choungarian, 1968). These differences were usually attributed to rearing practices rather than to inborn traits (Norman and Scott, 1952; Garth, Moses, and Anthony, 1938).

Mercer (1925) studied a group of Negroes and found their color preferences were, in order, blue, orange, green and violet, red, yellow, and white. In this scale, green and violet had equal ratings. When compared to the color preferences of whites, there was a difference with respect to red and green. Both races chose blue as the most preferred color. The white subjects seemed to have a more clearly defined color preference order than Negro subjects.

In the research by Hurlock (1927) of white and Negro children, blue and pink were the favorite colors of both groups. Black, brown, and gray were the least preferred of both races. The only difference found was that whites scattered their preferences over a greater number of colors than did Negroes. There was a high amount of agreement in all instances of color preference and differences were slight.

Gesche (1927) discovered that Mexican school children's color

preferences were, in order, red, green, blue, violet, orange, white, and yellow. There was a large difference between Mexicans and whites with respect to red. Whites placed red third in their scale of preferences, while Mexicans placed it first. The opposite was true with the color blue. Whites placed blue first and Mexicans placed it third. The colors green, violet, and orange were placed in the same position for both groups. White was the least favorite of whites. Yellow was the least favorite color of Mexicans.

Garth and Collado (1929) studied Filipino children and found that they preferred red, followed by green, blue, violet, orange, white, and yellow. Tests showed that these children had some difficulty in discriminating feelings of differences for many colors when compared with American Indians, both the Filipinos and the American Indians had a preference for red. The Filipinos were similar to young whites, as well as other races, with respect to the positions of red and white.

In a study of East Indians, ages 5 through 26 years (Garth, et al., 1938), it was found that their color preferences were red, green, blue, violet and orange, yellow, and white. Orange and violet had equal ratings. The color preferences of the East Indians were different from American whites' color preferences.

It has been reported by Bou and Lopez (1953) that blue was the favorite color of Puerto Rican elementary school children, orange was the least favored color, and red and yellow followed blue in the sequence. The children also showed a preference for primary colors over secondary colors and for dark values over lighter values.

Socio-Economic Status and Color Preference

Studies were few in this area, but most agreed that the development of color preference depended on the social status of the child (Winch, 1909; Michaels, 1924). Winch (1909) found similarities in the color preference orders of a high socio-economic group of children and a middle socio-economic group. Differences, however, were found between the lower socio-economic group and the high and middle socio-economic groups. The color preference order for children of the low socio-economic group in the early grades was identical to that of children in the early grades of the middle and high socio-economic groups, except that black, the least preferred color of the high and middle socio-economic groups, was rated higher by the low socio-economic group. More differences in color preferences were found in the higher grades. The color preference order for children in the higher grades of the high and middle socio-economic groups was red, white, green, yellow, and black. The preference order for children in the higher grades of the low socio-economic group was blue, red, green, white, and black.

Michaels (1924) found that a group of boys from high socio-economic level homes preferred violet, followed by red and blue, orange, yellow, and green. Boys from the working class preferred blue, orange, red, violet, yellow, and green, in that order.

Bou and Lopez (1953) discovered a difference in the color preferences of elementary school children in rural and urban areas. Those children from the rural area showed a more definite preference for blue and red than did those children from the urban area. The reverse was true with yellow and orange.

Personality and Color Preference

The research in this area was more recent than that of the other sections. Lawler and Lawler (1965) found a direct relationship between mood and color preference of adults. Bjerstedt (1960) found that warm and cool colors had different psychological meanings for adults. Those who preferred warm colors had behavioral tendencies which reflected activity, directness, enjoyment of life, and need gratification.

Barret and Eaton (1947), in a study of college women, found that preference for a hue or a tint was associated with a certain pattern of personality. Shade was also included among the possible color choices, but no large group preferred shades. When tested, those who preferred hues over tints had fewer associations to words, a higher annoyance score, a lower morale score, and fewer changes of mind on social and economic issues. Those who preferred hues felt their behavior disclosed their emotions. Those who preferred hues also responded more directly and with greater interest to objects and events in the environment. Those who preferred tints over hues viewed the external world with subjective values and lived more in their own thoughts.

Associations and Color Preference

There is general agreement that color preferences depended upon color associations (Norman and Scott, 1952). Color preferences were found to depend partly upon associations of color with affections (St. George, 1938).

In a study by Powelson and Washburn (1913), direct verbal suggestion regarding the pleasantness or unpleasantness of a color had a positive effect on the color preferences of the adults tested. Staples

and Walton (1933) conducted a study in which nursery school children were given a series of pleasurable experiences accompanying the presence of a specific color. This resulted in a decided increase in the affective value of that color. This preference was maintained to a significant degree after a five-month interval.

Only one researcher suggested that color appreciation was dependent on an aesthetic factor of a biological nature (Granger, 1955). Woods (1956) combined these two views into one. He thought that responses to colors were determined by affective and unlearned feelings, and learned elements derived unconsciously from associations. He also wrote that as the individual matures, social learning comes into the picture to affect color preferences.

Color Combination Preference

Jastrow (1897) found the most frequently preferred color combinations to be in order: red and violet, red and blue, blue and violet, and red and green. The least liked color combinations were orange and green, and orange and violet. He also discovered that a subject's favorite color was apt to reappear in their preferred combination of colors. Washburn, Haight, and Reguensbury (1921), and Allen and Guilford (1936) also found this to be true.

Allen and Guilford (1936) discovered that either very small or very large differences in hue gave a more pleasing effect. In a study of 2076 individuals by Woods (1956), responses to different color combinations varied with age, intelligence, and sex. The combinations which had more contrast were preferred by those who were less socially oriented in their behavior. Those who were more socially oriented selected

more subtle color combinations.

Color Preference for Clothing

Philip (1945) found color to be a significant factor in the fashion preference of college students. However, this was more true of the men, than of the women.

When Hunt (1959) studied children's clothing preferences, she found that their color preferences for clothing varied significantly. Red, yellow, green, and blue were preferred more than orange and violet. These preferences tended to vary significantly with age but not with sex.

Summary

The review of literature concerning color preferences suggested the following:

1. Color preferences showed regular changes in definite directions with increased age.
2. Researchers differed in opinion about sex as a determinant of color preference.
3. The research showed that there are definite cultural differences in color preference.
4. The development of color preferences depended on the social status of the child.
5. There was a definite relationship between personality and color preference.
6. There was a general agreement that color preferences depended upon color associations.

7. The preferred single color was usually found in the preferred color combination.
8. Color was a significant factor in clothing preference for adults, but varied for children.

CHAPTER III

PROCEDURE

The purpose of this study was to examine preschool children's color combination preferences for clothing. To achieve that purpose, the following steps were followed: (1) development of an instrument, (2) selection of subjects, and (3) administration of the instrument.

Development of Instrument

Criteria for Test

The following criteria were considered in constructing the instrument. The test allowed for:

1. Responses without reading, writing, or verbalization.
2. Maintaining the child's interest.
3. Completion of test in a short period of time.
4. Individual testing of the children.
5. Objective scoring.

Description of Instrument

The instrument used for measuring single color preference was six colored paper squares made from construction paper. The colors were the primary and secondary colors: red, yellow, blue, green, orange, and violet.

The instrument used for measuring color combination preferences for

clothing were cut outs in the shape of a T-shirt and shorts mounted on 3" by 4" cards. These were cut from Color-Aid papers made by Geller Artists Materials, Inc. The color combinations were of four basic types: complementary, analogous, monochromatic, and triadic. There were 20 combinations. The cards were covered with a clear plastic to preserve them.

The cards were sorted into three shoe box lids covered with white contact paper. The pictures behind the boxes were mounted on black construction paper. They were pictures of suitcases, chest of drawers, and a trunk.

Pilot Test

Eight children, ages three and four years, were given the test to determine accuracy and clarity of the test and to ascertain the children's ability to respond. From the results of this pilot test the instrument was accepted as useful in measuring the children's single color preferences and their color combination preferences for clothing.

Selection of Subjects

The subjects for this study were 62 preschool children, aged three and four years enrolled in the Child Development Laboratories, Oklahoma State University, Stillwater, Oklahoma. There were 33 boys and 29 girls. There were 23 three year olds and 39 four year olds.

Administration of Instrument

The child and investigator were seated at a table in a secluded area, free from distractions. When rapport was established, the

investigator introduced the test with the following explanation. There are many colors in the world. Anyplace you look you see different colors like red, blue, green, yellow, violet, and orange. We usually like some colors better than others. I have some colored squares in this envelope. You can choose your favorite colored square to keep and take home with you.

The colored squares were presented simultaneously to the child, cast randomly from a large envelope. He was given all the time needed to make his selection. There were enough colored squares for every child to keep his selection.

The investigator then presented the clothing color combination test. It was introduced with the following short story. The pronouns were changed depending on the sex of the child.

There once was a little boy who was planning a trip to his grandmother's house. But his grandmother lived a long way from his house. So he had to pack a suitcase, full of his favorite clothes, because he was going to spend the night.

While he was packing his suitcase his mother came in and asked him to make two other piles of clothes. She said, "When you find some clothes you only like a little bit, put them back in the drawers. When you find some clothes that you do not like at all, put them in the trunk. We will give those to your cousin Sam."

When the little boy found some clothes he really liked, he put them in the suitcase. When he found some clothes he only liked a little, he put them back in the drawer. When he found some clothes he did not like at all, he put them in the trunk.

The clothing color combination cards were then presented

simultaneously to the child, cast randomly from a large envelope. He was instructed to put those clothes he really liked in the box by the picture of the suitcase, those he only liked a little in the box by the picture of the drawers, and those he did not like at all in the box by the picture of the trunk.

The child was given all the time he needed to sort the cards. The investigator recorded his selections on the score sheet. The same procedure was followed for each child.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to examine the color combination preferences for clothing of preschool children and to determine if these preferences were related to (1) age, (2) sex, and (3) their single color preference. Another purpose of this study was to determine the consistency of the color combination preferences by a test and retest.

Subjects

Table I presents the distribution by age and sex of the children studied. The children tested were enrolled in the Child Development Laboratories, Oklahoma State University, Stillwater, Oklahoma.

TABLE I

NUMBER OF CHILDREN STUDIED FOR COLOR COMBINATION PREFERENCES BY AGE AND SEX
N=62

	Threes	Fours	Total
Boys	10	23	33
Girls	13	16	29
Total	23	39	62

Findings

Hypothesis 1a. There is no marked difference in the color combination preferences for clothing of preschool children in relation to age.

The Binomial Test was used to analyze the significance of difference between preferences for color combination by age. Total choices by three year olds and by four year olds were compared for each 20 possible combinations. Data shown in Table II revealed that no significant differences were obtained. Therefore, the hypothesis cannot be rejected. Three year olds and four year olds did not differ in their preferences.

Violet, orange, and green was the most preferred combination for the total group on the initial test. A combination of orange and an orange tint was the least preferred combination for the entire group on the initial test. The most preferred combinations for the three year old on the initial test was red and green; and yellow green yellow, yellow orange yellow, and yellow. A combination of blue and a blue tint was the least preferred combination for the three year old children on the initial test. The most preferred combination of the four year olds on the initial test was violet, orange, and green. A combination of orange and an orange tint was the least preferred combination of the four year olds on the initial test.

Hypothesis 1b. There is no marked difference in the color combination preferences for clothing of preschool children in relation to sex.

The significance of difference between preferences for color combination by sex was analyzed with the Binomial Test. Total choices by boys and girls were compared for each of the 20 possible combinations. No significant differences were found as shown in the data in Table III.

TABLE II

COLOR COMBINATION PREFERENCES ACCORDING TO AGE ON INITIAL TEST
N=62*

Color Combinations	Threes	Fours	Total
A. Monochromatic			
1. (yellow)	13	18	31
2. (orange)	12	15	27
3. (red)	15	21	36
4. (violet)	11	23	34
5. (blue)	8	20	28
6. (green)	13	22	35
B. Complementary			
7. (y & v)	15	22	37
8. (o & b)	15	22	37
9. (r & g)	17	16	33
10. (v & y)	14	16	30
11. (b & o)	13	18	31
12. (g & r)	16	16	32
C. Analagous			
13. (ygy, yoy, & y)	17	21	38
14. (oro, o, & oyo)	12	22	34
15. (rvr, r, & ror)	15	19	34
16. (v, vbv, & vrv)	15	19	34
17. (bvb, b, & bgb)	15	21	36
18. (gbg, g, & gyg)	12	18	30
D. Triadic			
19. (b, y, & r)	13	22	35
20. (v, o, & g)	16	28	44

*More than one choice per child was allowed.

TABLE III

COLOR COMBINATION PREFERENCES ACCORDING TO SEX ON INITIAL TEST
N=62*

Color Combinations	Boys	Girls	Total
A. Monochromatic			
1. (yellow)	17	14	31
2. (orange)	11	16	27
3. (red)	17	19	36
4. (violet)	19	15	34
5. (blue)	15	13	28
6. (green)	18	17	35
B. Complementary			
7. (y & v)	20	17	37
8. (o & b)	19	18	37
9. (r & g)	19	14	33
10. (v & y)	16	14	30
11. (b & o)	16	15	31
12. (g & r)	18	14	32
C. Analagous			
13. (ygy, yoy, & y)	19	19	38
14. (oro, o, & oyo)	20	14	34
15. (rvr, r, & ror)	17	17	34
16. (v, vbv, & vrv)	17	17	34
17. (bvb, b, & bgb)	18	18	36
18. (gbg, g, & gyg)	16	14	30
D. Triadic			
19. (b, y, & r)	20	15	35
20. (v, o, & g)	25	19	44

*More than one choice per child was allowed.

The hypothesis cannot be rejected. Boys and girls did not differ in their preferences.

Violet, orange, and green was the most preferred combination for the boys on the initial test. The boys' least preferred combination on the initial test was orange and an orange tint. The most preferred combinations of the girls on the initial test were red and a red tint; yellow green yellow, yellow orange yellow, and yellow; and violet, orange, and green. Blue and a blue tint was the least preferred combination of the girls on the initial test.

Hypothesis 1c. There is no marked difference in the color combination preferences for clothing of preschool children in relation to single color preference.

The Binomial Test was used to analyze the significance of difference between preferences for color combinations by single color preference. Data shown in Table IV revealed that no significant differences were obtained. Therefore, the hypothesis cannot be rejected. There were no marked differences when single color preferences were related to choices of color combinations.

The most preferred color of the total group on the initial test was violet. Violet was followed by red and green, yellow, orange, and blue in order. Red and green were preferred equally.

Hypothesis 2. There is no marked difference between preschool children's single color preferences for a test and retest.

The Binomial Test was used to analyze the significance of difference between preferences for single color on a test and retest. Single color choices of the total group on the initial test were compared with those of the retest. No significant differences were revealed.

However, because inconsistencies of preferences were observed in the testing of the children, a percentage of agreement was obtained for each subject. Agreement between the test and retest for single color preferences ranged from zero to 100 percent. The mean score was 39 percent. Therefore, the hypothesis can be rejected. A difference was found between preschool children's single color preferences for a test and retest.

TABLE IV

SINGLE COLOR PREFERENCES RELATED TO CHOICES OF COLOR COMBINATIONS ON INITIAL TEST N=62*

Preferences for Combinations of	Single Color Preferences					
	Yellow	Orange	Red	Violet	Blue	Green
Yellow	34	32	29	35	26	27
Orange	19	16	10	21	16	16
Red	34	37	42	35	38	38
Violet	42	41	39	44	38	42
Blue	8	12	14	9	14	11
Green	34	35	37	35	35	41

*More than one choice per child was allowed.

The most preferred color of the total group on the retest was violet. Violet was followed by orange, red and blue, green, and yellow.

Red and blue were preferred equally.

Hypothesis 3. There is no marked difference between preschool children's color combination preferences for clothing for a test and retest.

The significance of difference between color combination preferences on a test and retest was analyzed with the Binomial Test. Color combination preferences of the total group on the initial test were compared with those preferences of the retest. No significant differences were revealed in the data shown in Tables V, VI, and VII. However, because inconsistencies of preferences were observed in the testing of the children, a percentage of agreement was obtained for each subject. Agreement between the test and retest for color combination preferences ranged from 10 to 74 percent with a mean score of 32 percent. Therefore, the hypothesis can be rejected. A difference was found between preschool children's color combination preferences for clothing for a test and retest.

The most preferred combination on the retest for the total group was orange and blue. The least preferred combination on the retest for the total group was red and green. Green and red was the most preferred combination of the three year olds on the retest. Orange red orange, orange, and orange yellow orange was the least preferred color combination of the three year olds on the retest. The four year olds preferred violet and yellow the most on the retest. Red and green was the least preferred color of the four year olds on the retest.

The boys' most preferred combinations on the retest were orange and blue; and blue violet blue, blue, and blue green blue. Green and a green tint, and red and green were the least preferred combinations

TABLE V

COLOR COMBINATION PREFERENCES ACCORDING TO AGE ON RETEST
N=62*

Color Combinations	Threes	Fours	Total
A. Monochromatic			
1. (yellow)	12	21	33
2. (orange)	12	15	27
3. (red)	9	23	32
4. (violet)	10	22	32
5. (blue)	13	21	34
6. (green)	11	17	28
B. Complementary			
7. (y & v)	14	18	32
8. (o & b)	14	23	37
9. (r & g)	13	11	24
10. (v & y)	10	26	36
11. (b & o)	9	21	30
12. (g & r)	15	16	31
C. Analagous			
13. (ygy, yoy, & y)	9	14	23
14. (oro, o, & oyo)	7	18	25
15. (rvr, r, & ror)	13	15	28
16. (v, vbv, & vrv)	13	21	34
17. (bvb, b, & bgb)	13	20	33
18. (gbg, g, & gyg)	13	16	29
D. Triadic			
19. (b, y, & r)	12	24	36
20. (v, o, & g)	13	18	31

*More than one choice per child was allowed.

TABLE VI

COLOR COMBINATION PREFERENCES ACCORDING TO SEX ON RETEST
N=62*

Color Combinations	Boys	Girls	Total
A. Monochromatic			
1. (yellow)	18	15	33
2. (orange)	15	12	27
3. (red)	17	15	32
4. (violet)	18	14	32
5. (blue)	21	13	34
6. (green)	13	15	28
B. Complementary			
7. (y & v)	18	14	32
8. (o & b)	24	13	37
9. (r & g)	13	11	24
10. (v & y)	21	15	36
11. (b & o)	17	13	30
12. (g & r)	16	15	31
C. Analagous			
13. (ygy, yoy, & y)	14	9	23
14. (oro, o, & oyo)	17	8	25
15. (rvr, r, & ror)	15	13	28
16. (v, vbv, & vrv)	21	13	34
17. (bvb, b, & bgb)	24	9	33
18. (gbg, g, & gyg)	16	13	29
D. Triadic			
19. (b, y, & r)	20	16	36
20. (v, o, & g)	20	11	31

*More than one choice per child was allowed.

TABLE VII

SINGLE COLOR PREFERENCES RELATED TO
CHOICES OF COLOR COMBINATIONS
ON RETEST
N=62*

Preferences for Combinations of	Single Color Preferences					
	Yellow	Orange	Red	Violet	Blue	Green
Yellow	21	16	14	17	17	14
Orange	24	25	21	25	25	20
Red	28	22	28	23	27	21
Violet	47	40	49	54	54	48
Blue	25	30	26	23	33	22
Green	15	17	13	13	14	13

*More than one choice per child was allowed.

of the boys on the retest. Blue, yellow, and red was the most preferred combination for the girls on the retest. The girls' least preferred combination on the retest was orange red orange, orange, and orange yellow orange.

CHAPTER V

SUMMARY, FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to examine the color combination preferences for clothing of preschool children and to determine if those preferences were related to age, sex, and their single color preferences. Another purpose of this study was to determine the consistency of the color combination preferences by a test and retest. Subjects for this study were 62 three and four year old children.

Major Findings

1. Three year olds and four year olds did not differ in color combination preferences for clothing.
2. Girls and boys did not differ in color combination preferences for clothing.
3. Color combination preferences were not related to single color preference.
4. Violet, orange, and green was the most preferred color combination.
5. Violet was the most preferred single color.
6. A difference was found between preschool children's single color preferences for a test and retest.

7. There was a difference between preschool children's color combination preferences for a test and retest.

Implications

The findings of this study seem to indicate that manufacturers and retailers should offer a wide selection of color combinations for children's clothing. It is also indicated that children should be provided with a range of color combinations to make their own selection. Parents should be educated as to the nature of preschool children's color combination preferences. This education would help the parents in their relationships with their children.

Recommendations

1. Repeat this study on a larger sample.
2. Elementary school children should be examined as to their color combination preferences and the consistency of their choices.
3. This study should be repeated using different colors and combinations.
4. This study should be replicated when the subjects are elementary school age.

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APPENDIXES

SCORE SHEET

Child _____ Date _____

Age _____ Lab _____

Sex _____

Single Color Preference

yellow	violet
orange	blue
red	green

Color Combination Preference

preferred	moderately preferred	not preferred
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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