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COLOUR PREFERENCES OF PRIMARY SCHOOL (YORUBA) STUDENT- TEACHERS

by

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Abstract

The study determined variations in the choice of colours among the Associateship Certificate in Education Students (A.C.E.) who were involved in the 'ACE' Summer programme of the Obafemi Awolowo University, Ife. The study was also carried out to find if there can be an established universally acceptable order of colour.

Two hundred and twenty four student-teachers from one hundred and sixty different primary schools in Oyo and Ondo state were served with the questionnaire on colour preference.

Result showed that there was no established universal order of colour. The student-teachers colour preferences were in the following order: Blue (43-31%), Green (26-73%), Purple (16-58%), Red (6-10%), Yellow (3.23%) and Orange (2.76%).

Based on the result of this study, it was recommended that book designers and publishers should take cognisance of the colour preferences of teachers. Teachers are in a position to influence the types of books to be used in schools and they can also influence colour preferences of children one way or the other.

Introduction

Colour, like sound is a vibratory phenomenon, each colour can be compared with a musical note. Red on one side, can be seen as the colour with the lowest frequency (number of vibrations per second) and lowest wave length, and low pitch, while violet, at the other end has the highest frequency very high shrill note of high pitch (Graves, 1951). Colour is only one form of radiant energy, a very small section of the colours are arranged on the electromagnetic spectrum in this order: Red, Orange, Yellow, Green, Blue and Violet.

Colour is determined by three elements. They are 'hue', 'chroma' and 'value'. The 'hue' of colour refers to the location of a particular colour around the colour wheel, blue, red, yellow etc., are names of hue: Munsell (1941) view chroma as the degree of saturation of colour just like in colour mixing, hue reach their greatest intensity, or strongest chroma at different values. Value on the other hand is the degree of darkness or lightness. A dark colour for example can be graduated on the colour bar having divisions of one to ten.

Physiologically, colour like sound is subjective and its existence rely solely on the sensory apparatus of humans and animals. Colour is sensation produced when the eye gets excited by visible radiant energy of light. The effect of colour sensation is psychological, because we perceive different colours differently for example Graves (1951) in

his study on colour wave length and its measurement discovered that the gray colour seems to reflect about 50 percent of light, whereas the photometric measurement shows that middle gray colour reflects only 18 percent of light.

Colour can be attributed to having life, but it is light that engenders it. Oguntona (1985), concluded that colour aesthetics may be seen from three perspectives they are: impressionism (visually), Expressionism (emotionally) and constructivism (symbolically). From the view of the impressionists, their interest lies within the problems of the influence of colour radiation on man's mind and spirit. An artist for example is interested in colour effects, their aesthetic aspect, and the relationship mediated by the eye and the brain, colour agents and colour effects in man.

The Red, Yellow, Violet and Orange colours are regarded as warm colours literally. Red is most aggressive, showy and brilliant. Its exertion of power in terms of its constituency often neutralizes the effect of adjacent colours when used in a large quantity. The blue and green colours can be described as cool and retiring, they both have the value of producing quiet effect. When used, it is subduing. The green colour though retiring and inconspicuous in nature is a very restful colour to the eye. Orange colour is vivid and strong, its luminosity makes it stand out when used in combination with almost any other colour. (Oguntona, 1984; Talabi, 1979; Graves, 1951). Kegan and Lang (1978), in their research on colour line design and children emotion, postulate that none of the eight colours used is symbolic of a specific emotion except black which most of the children identify with 'Madness'. The colours the children of age group 6, 9, and 12 years old were exposed to, were yellow, green, red, brown, black, purple, blue and orange. The colours red, yellow and orange had positive effect and were associated with happiness, joy, excitement and love, while the black brown and blue had negative effect. The children associated them with sadness, madness, the feel of shame and worry.

In the study of visual preferences of colour over form among the Yoruba adolescents, girls were described to exhibit superior performance in their choices because colour is an immediately perceived stimulus (Uba 1985). The observed superiority of girls was limited with their domestic experiences in pottery, basketry, clothes production, dyeing, spinning, appliqueing and bead work.

In the study of colour preference and motor skills among children age 7-10 years Adeyanju and Adeyanju (1988) observed that colour choice was sex bias. Male subjects choose red colours, while females prefer blue colour.

Forshaw (1976a) conducted a colour preference test among 100 mature females students of home economics at Advanced Teacher's College, Zaria. He noted the order of preferences in the descending order; blue, red, green, violet (or purple) orange and yellow. Eysenck (1941) had the same reconciliatory result as Forshaw (1976a). However, Eikenberry (1977) found no fixed order of colour preference. Eysenck (1941) in his study had blue and red as colours most preferred but among Hausa subjects, the two colours red and blue fell in the lower 33 percent of colour preference list ... it was reported that orange and yellow were preferred over red and blue, but less than green and violet.

According to Gramza and Witt (1969) colour preference is influenced by age. Perhaps, there could be an existence of universal order of colour preference where same category of people are involved for example, a large number of female subjects may

always influenced researches on colour preference choice which could be blue (Forshaw, 1976).

The purpose of this study therefore is to determine the colour preference of Yoruba student-teachers in the Associateship Certificate in Education (Part-Time) Summer Programme of the Institute of Education, Obafemi Awolowo University, Ile-Ife in January 1987.

Subjects

Forty one males and one hundred and eighty three females served as subjects for the study. They were selected from among a total of 568 subjects using random sampling technique for males and females separately based on their population. Thirty nine males and one hundred and seventy eight females completed and returned the questionnaire administered same day, under the normal classroom situation.

Test Instrument

Instrument for the study consisted of:

- (i) Questionnaire and
- (ii) Coloured chips.

The coloured chips were of size 2 1/2" x 8" each. They are Crimson red, scarab green, bright blue, golden yellow, bright orange and violet. The coloured chips used were six out of eighteen (18) basic colours of which when combined 50/50 ratio will give over 80 additional shade coloured systems. They were produced by the Goats group of companies 50/50 offset coloured guide. Two sheets of papers were also used. They are Aeroart, Double Medium 100lb (170gsm) made by Reed Paper and Board Sales Ltd., and Dover Opaque snow white Cartridge, Double Medium 80lb (136gsm) made by the Wiggins Teape Group. The six coloured chips used for the study were of equal subjective brightness. The 'spectrum yellow' is a brilliant yellow, when compared with the 'Spectrum blue' which is much darker than the 'Spectrum red'.

Procedure

The administration of the tests were done in class. The six coloured chips were pasted three each on the white 'cartridge' paper in linear order. The colours were randomly numbered as follows: (1) for green, (2) for blue, (3) for yellow, (4) for red (5) for violet and (6) for orange. The charts were then mounted on the chalkboard. The subjects were instructed to study the six colours. Later they were asked to indicate by writing, using serial numbers one to six for matching the six coloured chips according to their preferences. The invigilator then went round to check on how subjects followed the instruction.

Descriptive statistics were used to analyse data on colour preference test.

Table 1: Colour Preference of Subjects in Percentage

Hue	Percent Choice
Blue	43.31
Green	26.73
Violet	16.58
Red	6.10
Yellow	3.23
Orange	2.76

Generally, blue colour was most preferred by subjects (43.31%) as indicated in the Table 1. Green was next, with (26.73%) followed by violet colour with (16.58%). (6.10%) of subjects chose red. This choice is followed by yellow with (3.23%). Orange colour was the least preferred colour.

Table 2: Colour Preference of Male and Female Subjects in order of Preference

Hue	Female (N = 178)		Hue	Male (N = 39)	
	Choice	%		Choice	%
Blue	79	44.38	Green	18	46.15
Green	43	24.16	Blue	15	38.46
Violet	33	18.54	red	3	7.69
Red	10	5.62	Violet	3	7.69
Yellow	7	3.93	Yellow	0	0.00
Orange	6	3.37	Orange	0	0.00

The male colour preference when compared with the female does not indicate a universal order of colour. While (44.38%) of females first choice was blue, the male choice was green, and that represents (46.15%). About twenty-four percent (24.16%) of the females choose green as their second preferred colour. (38.46%) of males indicated preference for blue colour as the second choice. For red and violet colour (7.69%) of the males indicated the two colours as their third preference. None of the male subjects choose yellow or orange but (3.93%) and (3.37%) of females choose yellow and orange as the least preferred colour.

Table 3: Colour Preference of Subjects from two other Students

Eikenberry (1977) N (144)		Forshaw (1976) N (100)		Present Study N (217)	
Hue	Percent Choice	Hue	Percent Choice	Hue	Percent Choice
Green	27.2	Blue	29	Blue	43.31
Red	25.1	Red	25	Green	26.73
Blue	23.1	Green	21	Violet	16.58
Yellow	7.9	Violet	9	Red	6.10
Orange	7.8	Orange	9	Yellow	3.23
Violet	7.1	Yellow	7	Orange	2.76

Table 3 presents colour preference from three studies. Subjects from two of the studies Forshaw (1976) and the present study made the blue colour their best preferred colour while in Eikenberry's study (1977) green was the first choice. About forty three (43.31) percent of subjects in the present study choose blue as first choice while only (29%) of subjects in Forshaw study made blue their first choice. There is also agreement between Eikenberry and Forshaw's subjects in terms of second preferred colour. Red was their second choice with about same percentage of subjects (25.1%) for Eikenberry and 25 percent for Forshaw choosing red. However the choice of second preferred colour in the present study was green with 26.73 percent of the subjects preferring that colour.

Besides the first two choice of colour in which two of the three studies are in agreement all other choices are mixed up. While blue colour was the first choice of subjects in Forshaw (1976) and the present study, it was the third choice of Eikenberry's (1977) subjects. Furthermore, while yellow was the fourth choice of Eikenberry's (1977) subjects, it was the least preferred by Forshaw's subjects and second to the last in the present study. Orange colour was fifth choice of subjects in both Eikenberry (1977) and Forshaw (1976) studies. Orange was the last choice of subjects in this study.

Discussions

Results from this study indicate the colour preference of subjects to be in the following order of choice from best to the least preferred: blue, green, violet, red, yellow and orange. The blue colour as the best preferred colour in this study is in agreement with the studies of Forshaw (1978) and Eysenck (1941) but is at variance with the study of Eikenberry. One interesting observation is that while subjects in Forshaw's study and the present study and Eikenberry's were Nigerians, Eysenck's (1941) were Western subjects. The question is do Nigerians have the same colour choice – blue as their best colour?

Though the best preferred colour in this study is blue, but this cannot be a true reflection of choice when sex of the subject is taken into consideration. The fact that females formed the bulk of the subjects in this study does not allow the effect of male choice to be seen. When colour preference by sex was looked at, differences in colour preference is observed. The best colour for female subjects is blue, but for males, green was indicated. In fact a greater percentage of males (46.15%) preferred the green colour to the percentage (44.38%) of female subjects who made blue as their first colour preference. This result is consistent with that of Forshaw (1976) who found that blue was the colour preference of the female subjects used.

The blue and green colours have been described as cool and retiring and inconspicuous in nature, as opposed to the aggressive and showy brilliance of red (Graves, 1951, Oguntona, 1984 and Talabi 1979) they still have attraction for human being as evidenced by their selections as best preferred. This is probably a reflection of human nature in that the average individual tend to stir the middle course just like the blue and green colours occupy the middle section on the colour bar.

The findings of this study indicate blue and green as most preferred colours by Yoruba teachers. The choice of blue and red as the two most preferred colours in Eysenck's (1941) study is not in agreement with this study.

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However, the choice of blue is in agreement with Eysenck's (1941). Forshaw (1976) also had blue as the most preferred colour in his study of one hundred female subjects. The choice of blue is in agreement with this study but all other choices differs.

It can be concluded that there is no any fixed colour order of colour preference in this study since Eysenck's (1941) study among white subjects had their colour preferences in these order: blue, red, green, violet (purple) orange and yellow. Eikenberry's (1977) study had his own choice in these order: green, red, blue, yellow, orange and violet. This study indicate the colour preferences among the Yoruba teachers in this order, blue, green, violet, red, yellow and orange.

Implication

The effect colour plays on designed instructional materials cannot be overstated. Teachers and parents would testify to the kind of textbooks the pupils appreciate most. Children want coloured chalk, coloured pencils and illustrated books that require colouring.

Also print-media meant for wide circulation may be better appreciated when blue colour is printed on white material as this study indicated.

Publishers should therefore note the colour preferences of the teachers before producing massively the various text books, since the choice of covers the teachers like, may influence the pupils' choice. Besides, teachers may be found in the areas of recommending text books meant for the pupils use.

Similarly, the institutions having fine art department, audio-visual centres and food technology department would benefit from the result making various use of colours in line with the indicated colour preference in this study.

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