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Investigating the gender-based colour preference in children

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Abstract

This study aims at identification of gender-based colour differences among 7-9 years old children at single-gender schools in an Islamic country. This will help to better understand the effects of certain educational environments on children's tendencies towards specific colors. In this study multi-stage cluster sampling was applied to select a total of 100 students (50 boys and 50 girls) among 7-9 years old children chosen from one all-boy and one all-girl elementary schools. The color preference in children was evaluated based on Lüscher colour test and the results were analyzed according to Uman-Vitni and Kruskal-Wallis nonparametric tests. It is found that a significant difference exists between boys and girls tendencies towards four colours including blue, green, pink and black. In addition, it is observed that with age, children preference in yellow colour will vary considerably with their age.

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Keywords: Color preference, gender, age, children

1. Introduction

All the existing things consist of a special property called color which together creates a colorful world. Similar to how sound waves affect the acoustic nerves and in turn will cause a reaction, color also affects the visual nerves and again will provoke different reaction in people and animals. Color has a special language, together with its properties, the way they affect different children's social behavior and psychological manners, the mechanism under which the children will react to different colors and the use of color at the educational institutions and schools are of particular importance when dealing with color psychology. Each color depending on its ability and property will somehow affect the person's psychology and as a result cause different social and psychological response.

Children mind and soul is very soft and vulnerable. Almost all the components in their lives will somehow affect the way the learn things and what they learn. Since born, children react to their surrounding environment

and try to communicate with it. Because of the energy which is within the bright and happy colors, the kids naturally tend to like lighter and happier colors more than darker and sad ones.

Luscher test is a very interesting method through which numerous researches have been conducted most of which are aimed at detection of psychological disorders. In addition, Luscher test has been applied even to screen the potential job candidates. Among children, however, Luscher test has only been applied to determine the level of their relative preference to different colors. According to Luscher, Children at school age tend to prefer purple color over the other ones in his test¹.

2. Problem Statement

Have you ever thought if could only see the things in black and white, what would have happened? Certainly, we could not be the same human beings. Our understanding and learning from our surrounding would be quite different which in turn would have affected our personality by a considerable extent.

Can colour cause such a deep impact on our personalities? The answer is yes. Colour is an essential component of nature and our lives which will add more meaning or in other words complete our interaction with our surroundings.

Educational environments have a significant effect on the way the children's behaviour as a result of interaction with different colours. For example, dark girl's uniforms in single-gender schools will impact their social behaviour by causing depression, less physical activities and mental happiness.

Children in a classroom where the walls have been painted in dark blue or greenish yellow will learn better in comparisons with ones in classroom with grey walls or a book with colourful pictures will have more learning effect on kids than a book with black and white colours. Inappropriate colour selection will make the learning environment more tedious, boring, and depressive².

3. Research Questions:

The research questions are as follows:

Is there a clear relationship between children's tendencies towards certain colours and their gender and age?

Does the colour of kid's clothing will make the happy or sad?

Can different colour cause more attention and attraction?

Can some colours reduce the mental pressures?

Is colour able to change our mood?

Can colour reduce physical and mental weakness, increase the learning ability and make the environment more attractive?

4. Purpose of This Study

This paper studies the relationship between children's preference towards certain colors with their age and gender. The goal is to determine the children's preference based on Luscher colour test.

5. Research Method:

In this study multi-stage cluster sampling was applied to select a total of 100 students (50 boys and 50 girls) among 7-9 years old children chosen from one all-boy and one all-girl elementary schools. The colour preference in children was evaluated based on Lüscher colour test and the results were analysed according to Uman-Vitni and Kruskal-Wallis nonparametric tests.

Luscher colour test consist of eight cards with different colours and the kids have to select the colours based on their preference and place them in order. There are two different kinds of Lushcer test, namely, concise and full. In concise Luscher test, colour selection will be done in two steps. After the initial step the participants will be asked to take the exact same test again without noting the initial test. This will help to determine psychological problems. In the full Luscher test, the participant will be asked to choose the preferred colours among 73 different colours in 7 cards¹.

In this study, the concise Luscher test is applied to a group of 7-9 years old children to determine their level of preference to different colours. Therefore the second step in the Luscher test is disregarded as obtaining the information on children's personalities is out of the scope of this study.

The test is conducted in a way that the person will choose his/her favourite card based on personal preference. The cards are classified into four different interest levels. The first level which is corresponding to the first chosen card is the highest level of interest. The second level shows lower interest level while the last picked cards belong to zone where the person does not have particular interest in it. The last level is the colours which the person is not interested or even hates. In Luscher each colour card has a specific number as summarized in the following table.

Table 1: Different colours and their corresponding numbers in the Luscher's test

Colour	Grey	Blue	Green	Red	Yellow	Violet	Brown	Black
Corresponding number	0	1	2	3	4	5	6	7

The psychological characteristics of different colours in the Luscher's test as well as the person who picks them are provided below.

Grey: Grey is not a color, it is neither light nor dark, it is completely free of stimulus and psychological tendencies. The color grey signals emotional coolness. Whoever chooses grey in the first position wishes to remain free of obligations, and not involved. He attends only mechanically and artificially in social contexts. Grey on the first place is completely compensating, which arises from the anxiety that comes from the rejected colors¹.

Blue: Dark blue represents total peace. Blood pressure and pulse rate drops and your body prepares itself to relaxation and recharging. The need for this color increases with disease and exhaustion. Blue represents social ties, social cohesion and sense of belonging. "Blue is loyalty, " it is said. Dark blue is a slightly leaned back color. It is often preferred by overweight persons. The person who chooses blue in the first position wants emotional peace, harmony, contentment, peace in his soul and an ethical attitude to life. He needs to feel confidence in people, who are close to him, and feel that they trust him. A person who chooses blue, want calmness and orderly surroundings. He may also choose blue in the first position from a physical need for rest and relaxation and the opportunity to regenerate¹.

Green: Green expresses itself psychologically as the will in action, as endurance and perseverance. Passion for green indicates stable attitudes and constant self-consciousness and in particular resistance to change. A person who chooses green on the first position, wants to maintain an idealized image of himself through the recognition, he expects because of his wealth, his superior physique, his intellect or his superior cultural level. He needs credit for sticking to his opinions and principles and get it in his way despite resistance¹.

Red: Red represents willpower and strong emotions, also for others. Red is an expression of vital force, it increases heart rate, blood pressure and breathing. Red represents the desire for results and success; it reflects a strong desire for activities that gives intensity and rich experiences. It represents the impulse to action and the will to win in sports, combat, and love and enterprising productivity. The person, who chooses red in the first position, wants intensity in experiences and wholeness in life. What forms these activities will take - cooperation, leadership, artistic and creative expression, eroticism or excessive activity is mainly determined by the colour following the orange¹.

Yellow: Yellow represents spontaneity and concern for others. Yellow expresses unlimited expansiveness, a relaxation or loosening up. Yellow symbolizes cheerfulness, relief from burdens, problems, pesterings and restrictions. Green is the perseverance, yellow is change. Green is tension, yellow is relaxation. Between these two poles there is a conflict that arises out of their incompatibility. Here green's ambitions, narcissism and demands for prestige with yellow's hopeful search for happy experiences and adventures. The "yellow" person can be like an enterprising whirlwind, but the whirls come in unpredictable pulses¹. If you paint a wall in dark yellow, you will produce a very heavy environment. However, if you lighten it by up to 50%, you will get a very attractive lime colour which will be very enthusiastic³.

Violet: The person who prefers violet, wish for a magic relation to reality. He wants to abolish the difference between subject and object, between cause and effect, and make his world a magical and intuitive wholeness. He feels that everything that can be imagined and dreamed are also a form of reality. Passion for violet can indicate a desire for an intimate erotic fusion with another or a desire for an intuitive and mystical mutual understanding. Violet represents deep introvert religiosity. The color is preferred by teenagers, pregnant women, homosexuals of both sexes and people who have problems with the thyroid gland¹.

Brown: Brown represents physical sensitivity. Its position in the row gives a clue about, what the test person feels on her body. However, a reddish brown represents sexual appetite⁴. In case of physical discomfort or illness brown begins to move forward in the rank. Refugees and other uprooted persons, who have no place to relax and no prospect of physical satisfaction, will often place brown in the beginning of the series. This was especially true for those, who were refugees during and after WWII. Not because they were especially physically sensitive, but because they could not find peace and security anywhere¹.

Black: Black represents the absolute limit of life, its final. That a person prefers black means that he rejects everything in a protest against a situation he considers as hopeless, a protest against life and fate. Black represents emptiness and annihilation; it represents denial, absolute giving up or abandonment. The person, who chooses black in the first position, wants to deny everything. He is stubbornly protesting against status quo, which in his opinion is not, as it should be. He protests against fate, certainly against his own, and behaves probably prematurely and and unwise in this protest¹.

6. Research Findings:

It is found that a significant difference exists between boys and girls tendencies towards four colours including blue, green, pink and black. In addition, it is observed that with age, children preference in yellow colour will vary considerably with their age.

More specifically, the results are obtained based on the average of colour preference point scales in both genders. It is found that the results have a significant and meaningful difference in girls and boys. The statistical analysis based on SPSS13 software shows that the average of colour preference point scales for the blue colour in boys is 3.36 whereas in girls is 4.74. For pink colour, this average for boys and girls is 5.06 and 2.08, respectively. The results for black colour also show a considerable difference where the average of 4.58 and 6.68 were obtained for boys and girls, respectively.

The preference for the yellow colour shows the maximum difference with the age among the mixed population of boys and girls. In more details, the average of colour preference point scales for the age of 9, 8 and 7 is 4.23, 2.90, and 4.26, respectively.

7. Conclusions

It is concluded that among the eight different colours tested in this study, only the change in kid's preference in yellow colour with their age is noticeable. Moreover, it is concluded that gender-based colour difference is meaningful for the blue, green, pink, and black colours.

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