

IMPACT OF COLOURS ON THE EMOTION AND PERCEPTION

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Colors have qualities that can cause certain emotions in people



Depending on the age, gender, and culture of an individual (Roohi S, 2019)



In learning environment, colour is believed to be able to cause positive or negative behaviours such as avoidance or withdrawal behaviours, affecting performance and stimulating senses



Colour preference is associated with the emotional response to the environment as well as behaviour in that environment.

INTRO- DUCTION



To investigate the effects of colour psychology on students' daily life.



To identify how colors affect to the students' behaviors and perceptions



To investigate the effects of colour on students' interest in learning based on the study environment and the learning materials

OBJECTIVES

METHODOLOGY

Sample size

- 70 students (28 males and 42 females)

Age

- 18-26 years old

Different Data type

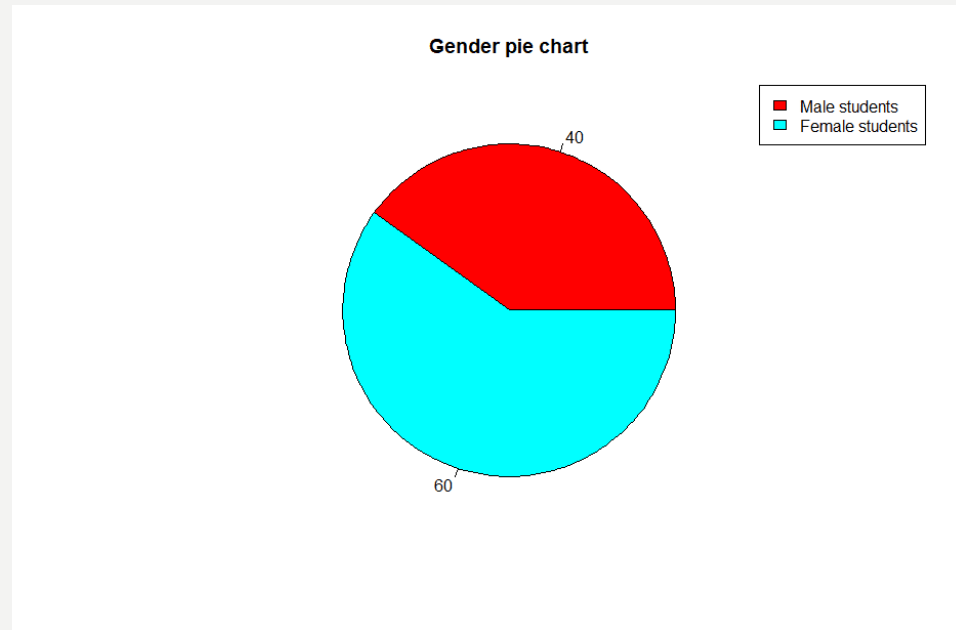
- Ordinal
- Nominal
- Ratio
- Interval

R programming languages

- R studio-Graphical data presentation

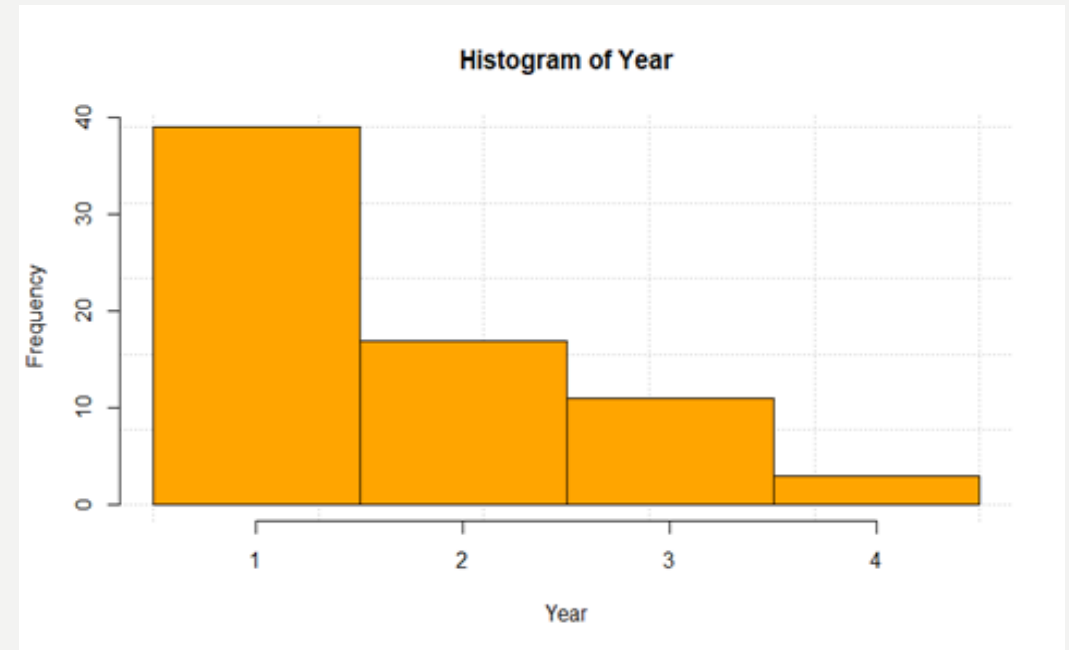
ANALYSIS AND DISCUSSION

GENDER



- Total – 70 students
- Female – 42 students (60%)
- Male – 28 male (40%)

YEAR



- Year 1 – 39 students (55.7%)
- Year 2 - 17 students (24.3%)
- Year 3 – 11 students (15.7%)
- Year 4 – 3 students (4.3%)

CGPA

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> stem(num,scale = 1,width = 100)
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The decimal point is at the |

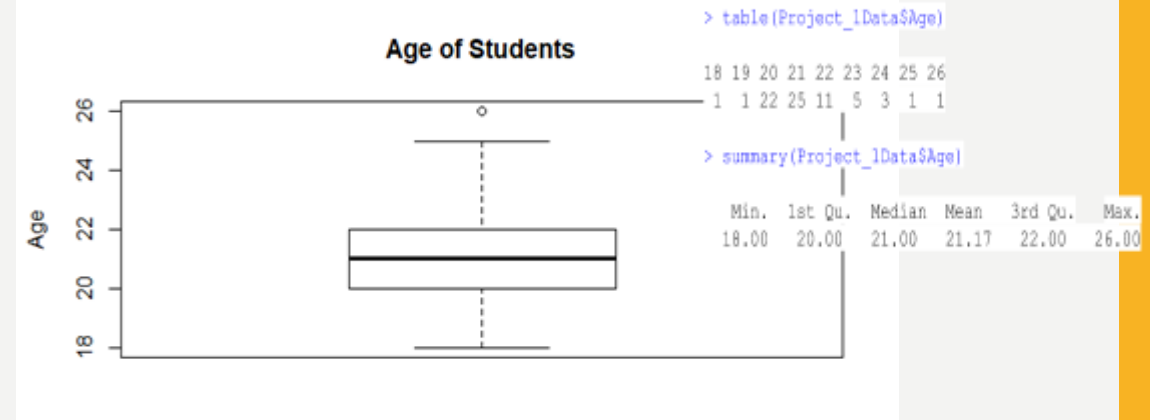
```
0 | 00
0 |
1 |
1 |
2 |
2 | 689
3 | 0000002334444
3 | 55555666666666777778888888888888999999999
4 | 0000000000000
```

2 | 6 represents 2.6

```
CGPA
Min.   :0.000
1st Qu.:3.435
Median :3.675
Mean   :3.519
3rd Qu.:3.890
Max.   :4.000
```

- Range: 3.44 - 3.89
- CGPA=0 - some direct entries who have not to sit for any examination at UTM

AGE

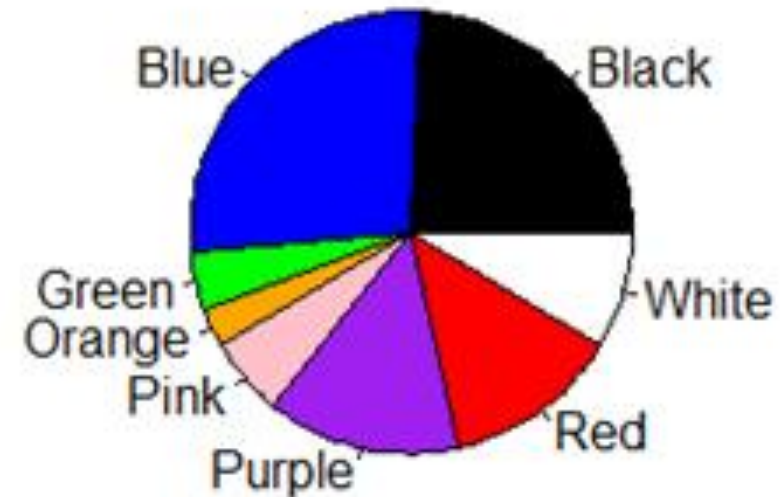


- Range – 18 – 26 years old
- Mean = 21 years old
- Median = 21 years old
- Mode = 21 and 20 years old
- Outliers = 26 years old

MOST FAVOURITE COLOUR

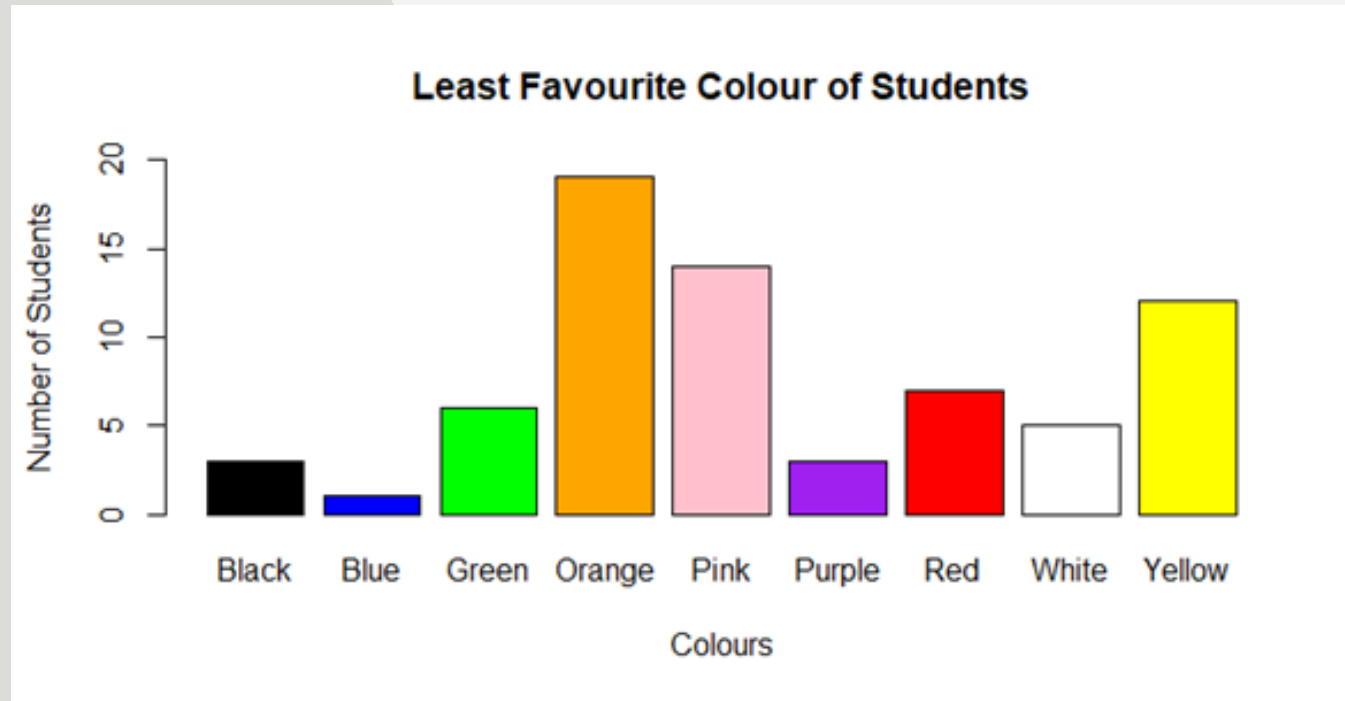
- Most Favorite colour – Blue (19 students, 27.14%)
- Others colour
 - Black (17 students , 24.28%)
 - Red (9 students , 12.86%)
 - White (6 students , 8.57 %)
 - Purple (10 students , 14.29%)
 - Pink (4 students , 5.71%)
 - Orange (2 students , 2.86%)
 - Green (3 students , 4.29%)

Most Favourite Colour of Students



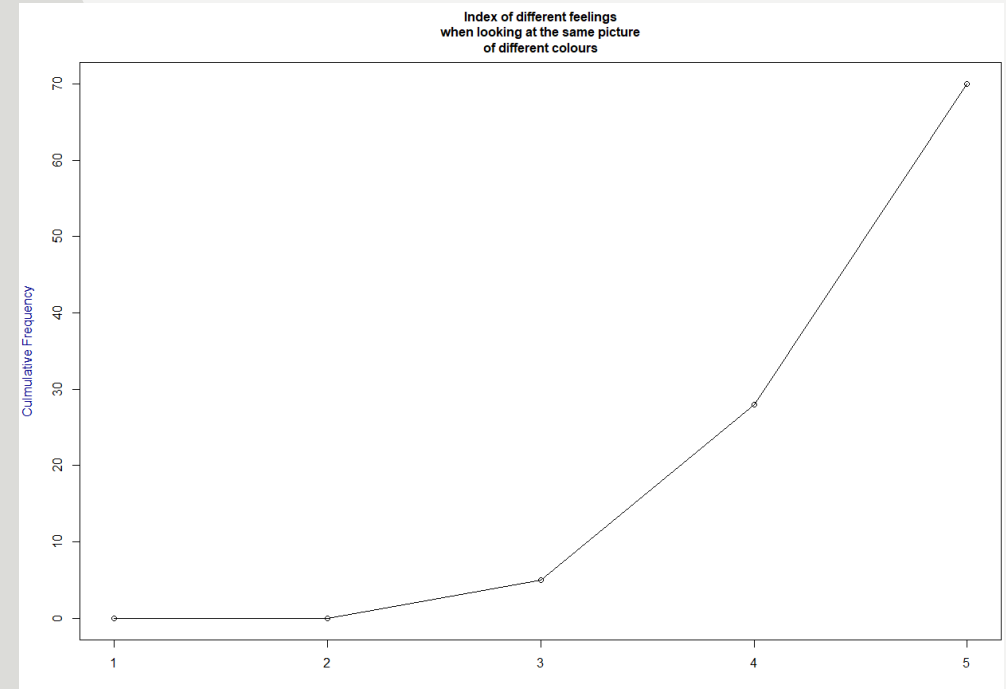
LEAST FAVOURITE COLOUR

- Most popular least favourite colour
 - Orange 19 (27.14%) students
- Other colours
 - Pink - 14 (20.00%) students
 - Yellow - 12 (17.14%) students
 - Red - 7 (10.00%) students
 - Green - 6 (8.57%) students
 - White - 5 (7.14%) students
 - Black - 3 (4.29%) students
 - Blue - 1 (1.43%) students



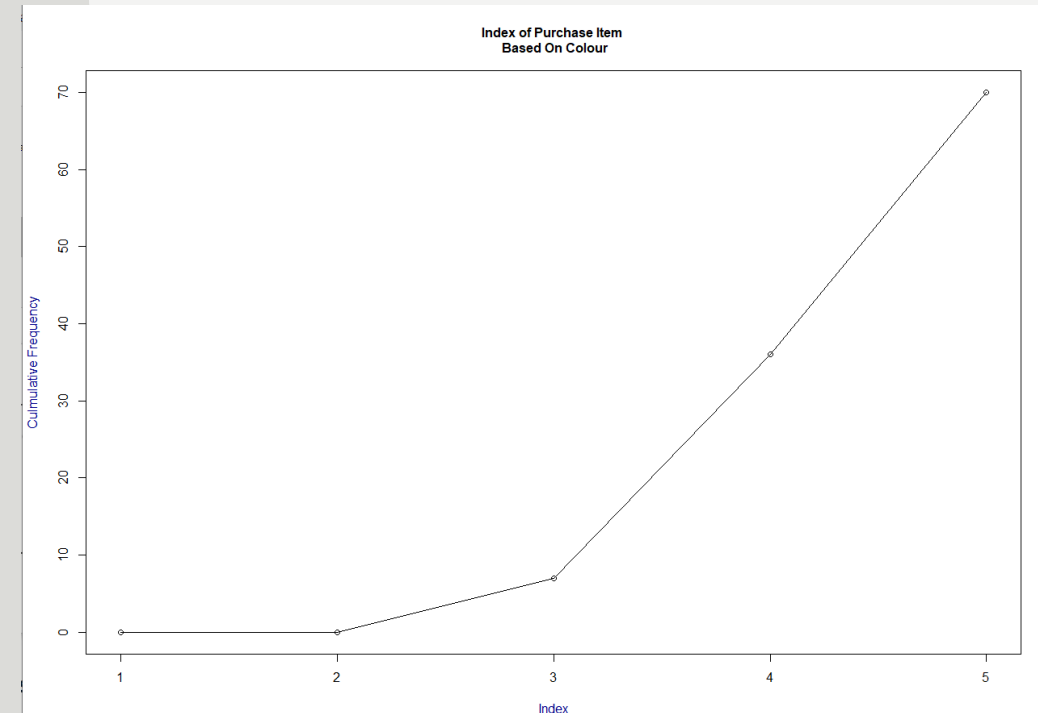
DIFFERENT FEELING

- Index 1 (strongly disagree) to 5 (strongly agree)
- Majority Strongly Agree (5) – 42 students (60%)
- 23 students (32.86%) agree (4) with this statement
- Only 5 students (7.14%) felt neutral
- No ones disagree (2) and strongly disagree (1) with this statement



PURCHASE ITEM BASED ON COLOUR

- Index 1 (strongly disagree) to 5 (strongly agree)
- Majority Strongly Agree (5) – 34 students (48.6%)
- 29 students (41.4%) agree (4) with this statement
- Only 7 students (10%) felt neutral
- No ones disagree (2) and strongly disagree (1) with this statement

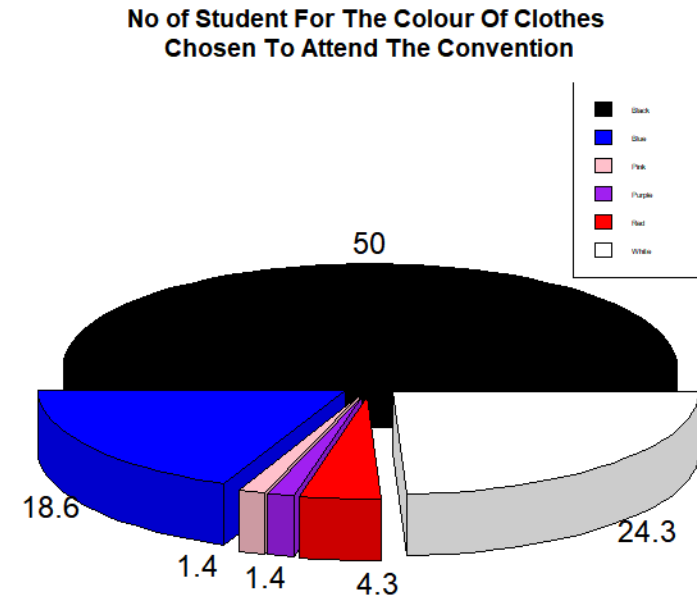


Discussion

- Colour is an important factor influencing the consumer buying decision process. (*The Psychology of Colour Influences Consumers' Buying Behaviour* by J Suresh Kumar)
- This statement proved that colours affect students' purchase behavior.

COLOUR OF CLOTHES (CONVENTION)

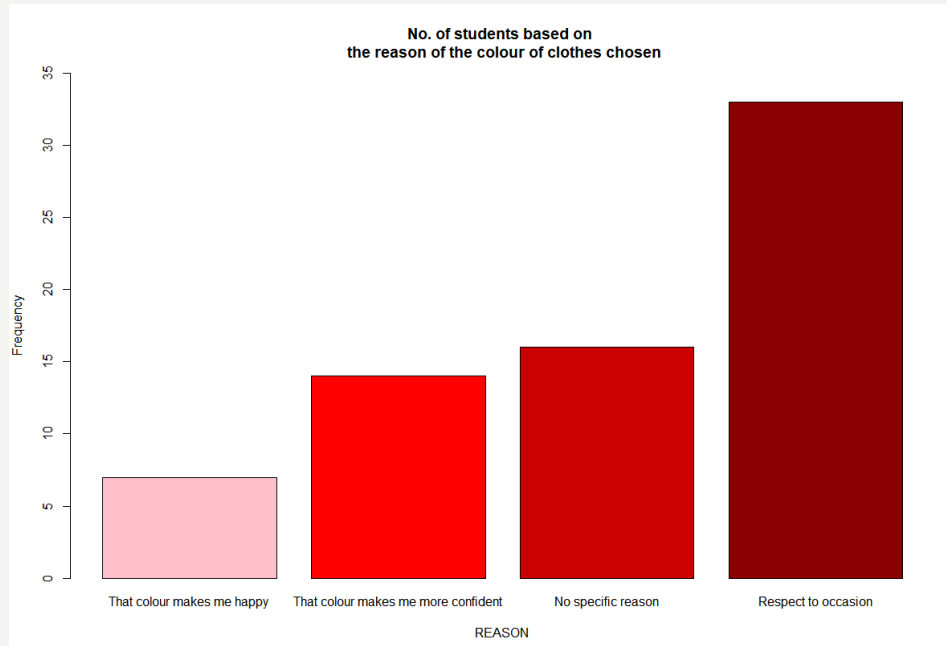
- Most popular colour – Black (35 students, 50%)
- Other colours
 - White (17 students, 24.3%)
 - Blue (13 students, 18.6%)
 - Red (3 students, 3%)
 - Pink (1 students, 1.4%)



Discussion

Black is the colour that shows seriousness and reliability while white represents purity and cleanliness. Although people have different perceptions of colours, the meaning of the colours may affect the behavior of the people.

REASON FOR THE COLOUR CHOSEN



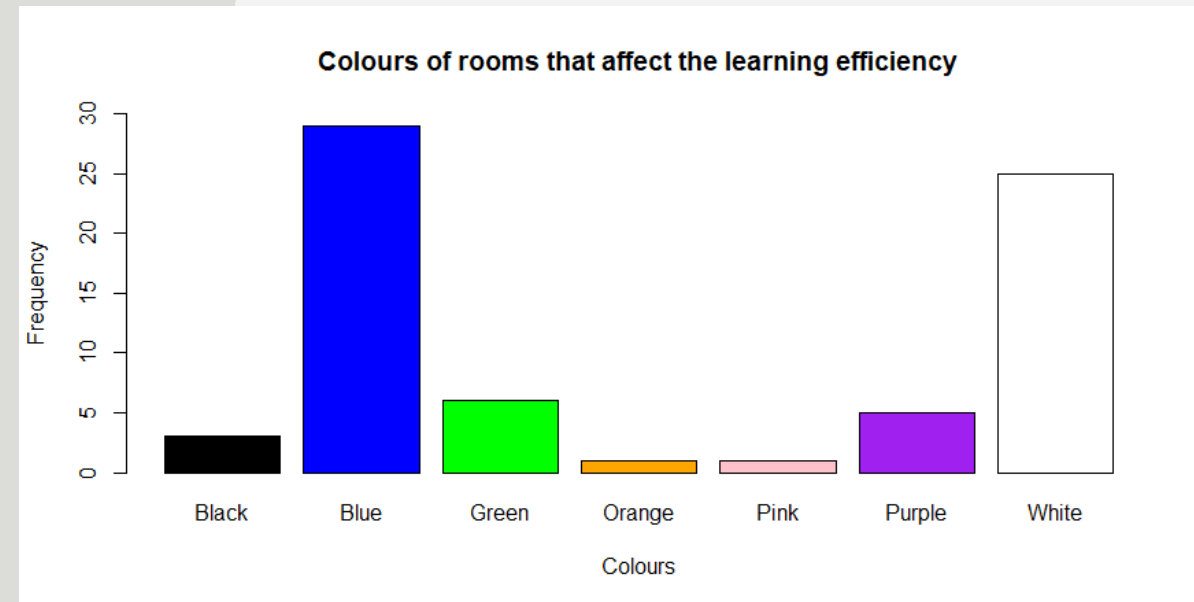
- Respect to the occasion
 - 33 students, 47.1%
- No specific reason
 - 16 students, 22.9%
- That colour makes me more confident
 - 14 students, 20%
- That colour make me happy
 - 7 students, 10 %

Discussion

- Different reasons for their choice can be explained by colour affect to the students' perception
- Due to the different colour perception among respondents, they make different colours as their choice and different reasons for their choice.

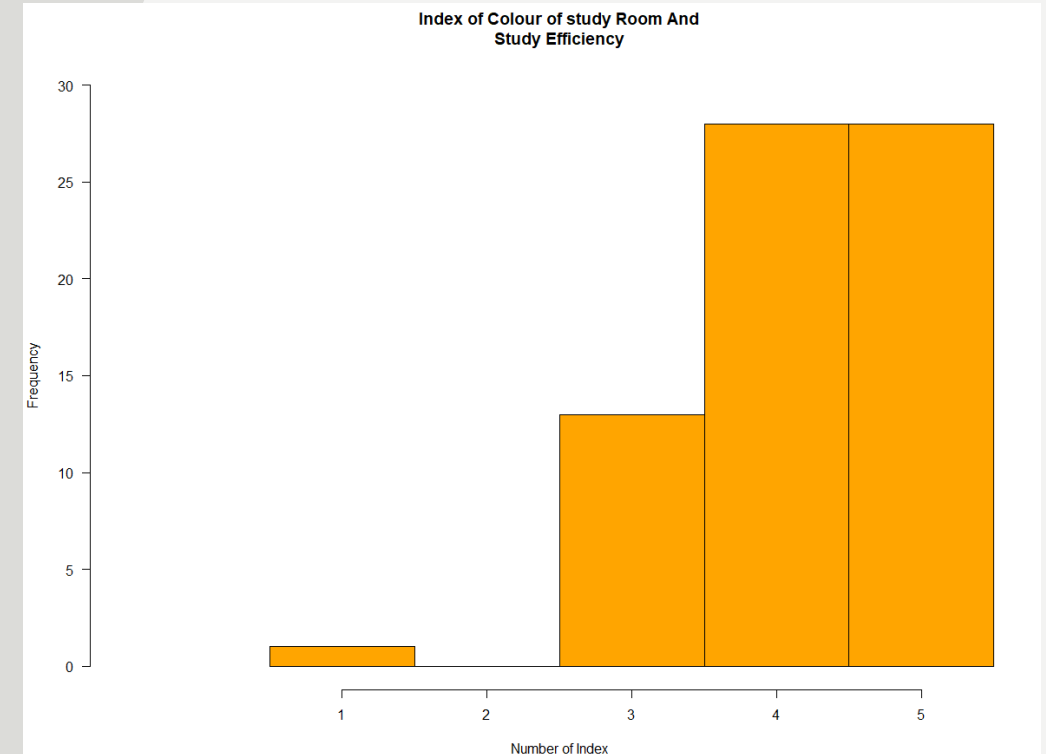
COLOUR OF STUDY ROOM

- Most popular colour – Blue (29 students, 41.4%)
- Others colour
 - White (25 students, 35.7%)
 - Green (6 students, 8.6%)
 - Purple (5 students, 7.1%)
 - Black (3 students, 4.3%)
 - Orange and Pink (1 students, 1.4% each)



INDEX OF COLOUR OF STUDY ROOM AND STUDY EFFICIENCY

- Index 1 (strongly disagree) to 5 (strongly agree)
- Majority Strongly Agree (5) and Agree (4)
 - 28 students (40%) each
- 13 students (18.6%) felt neutral
- Strongly disagree – 1 students (1.4%)



Discussion

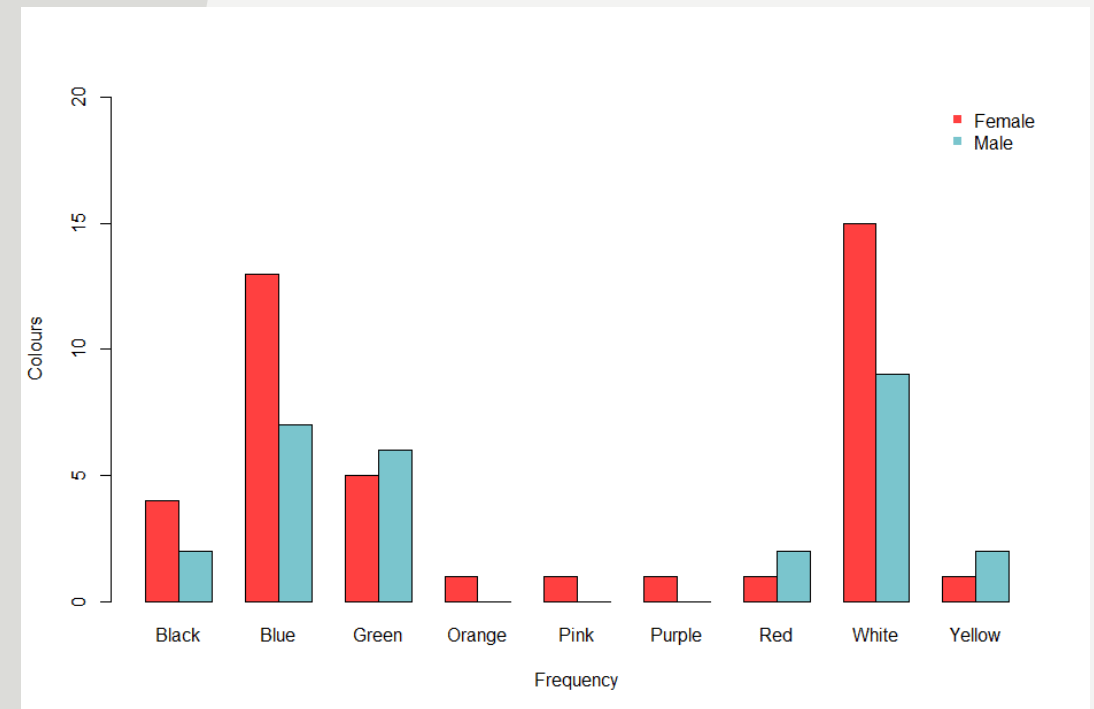
- It shows that colour is very essential to help students in their study mood and motivation
- Colour of the room can ensure that the students have a good study environment for them to be more concentrated and good emotional.

COLOUR OF SLIDES

- Most popular colour
 - White - 24 students
 - Female (15 students, 62.5%)
 - Male (9 students, 37.5%)
- Others colour
 - Blue - 20 students
 - Female (13 students, 65%)
 - Male (7 students, 35%)
 - Yellow and Red - 3 students respectively
 - 1 female students and 2 male students each colour
 - Pink , Orange and Purple – 1 students respectively
 - 1 female students and no male

```
> View(data)
> ct<-table(data$colourofTheSlides, data$Gender, dnn = c("Colour"))
> addmargins(ct)
```

Colour	Female	Male	Sum
Black	4	2	6
Blue	13	7	20
Green	5	6	11
Orange	1	0	1
Pink	1	0	1
Purple	1	0	1
Red	1	2	3
White	15	9	24
Yellow	1	2	3
Sum	42	28	70



Discussion

- Female and male students have different preferences of colours of theme background. Both female and male students prefer the white colour.
- This may be due to white being the lightest colour and simple design. Good choice for learning materials.
- Blue and green show a higher student preference than other colours. Some colors are appropriate for protecting eyesight and supporting the work environment, as well as physical and mental health(Mahnke ,1996)

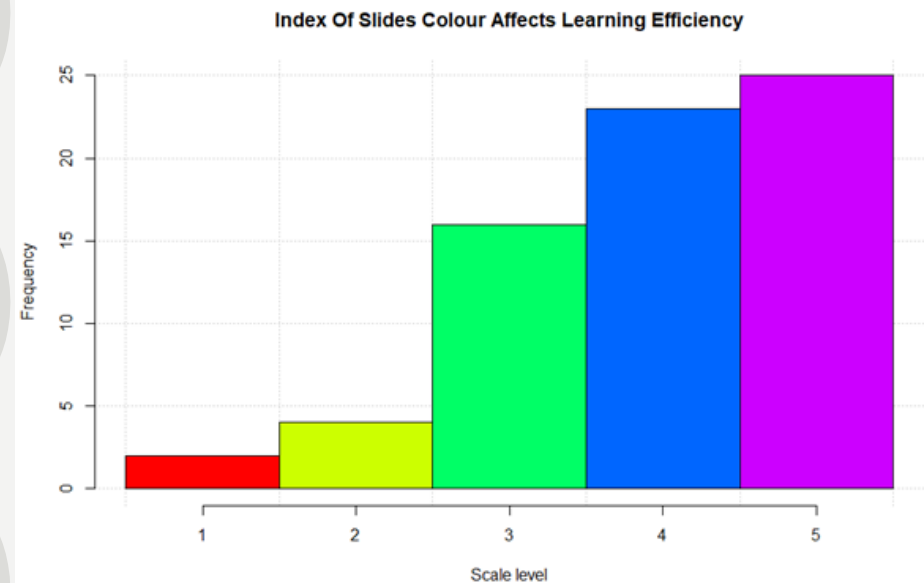
INDEX OF COLOUR OF SLIDES AND STUDY EFFICIENCY

- Index 1 (strongly disagree) to 5 (strongly agree)
- Strongly Agree (5) – 25 students (35.7%)
- Agree (4) -23 students (32.9%)
- Neutral(3) -16 students (22.9%)
- Disagree (2) – 4 students (5.7%)
- Strongly Disagree (1) – 2 students (2.9%)

Discussion

- A total of 68.6% of respondents are supporting that the slides colour affects learning efficiency
- Different colours provide different functions.
University students may prefer colours that are clean and simple for their learning materials, which can help them to concentrate on the contents of the learning materials.

level of agreement	Female	Male	Sum
1	0	2	2
2	2	2	4
3	12	4	16
4	14	9	23
5	14	11	25
Sum	42	28	70

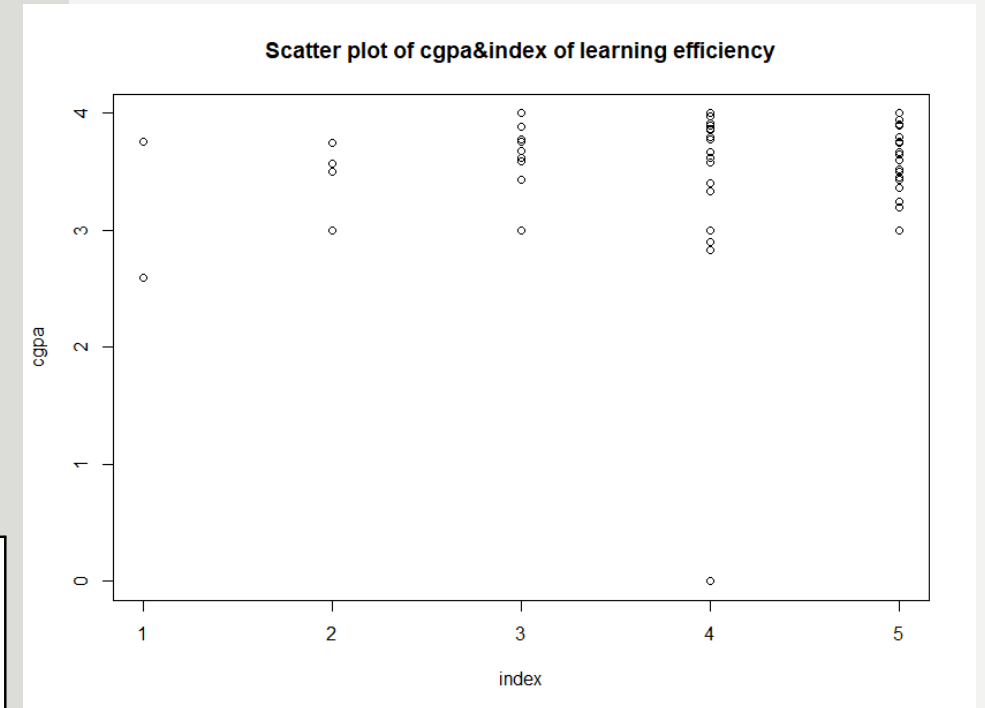


CGPA AND LEARNING EFFIECNCY

- Two students with highest CGPA are agreed and strongly agreed to that statement while there is only one student with highest CGPA felt neutral to the statement.
- The student with lowest CGPA=2.60 is strongly disagreed with the statement.

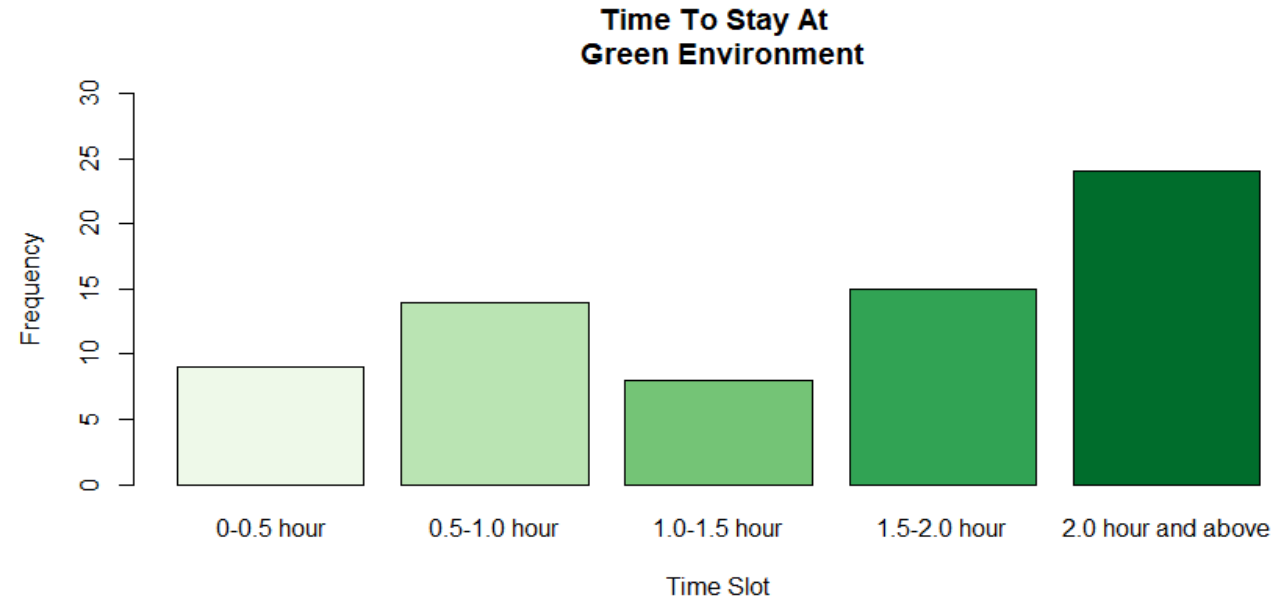
Dicussion

- Proved that the students who do not mind the effects of colour of slides will affects their study efficiency
- The colour of a study environment can affect the degree students are able to absorb information (the research conducted by Sinofsky and Knirck ,1981)



TIME TO STAY AT GREEN ENVIRONMENT

- Most popular – 2.0 hours and above (24, 34.3%)
- Other options
 - 0-0.5 hour (9 students, 12.9%)
 - 0.5-1.0 hour (14 students, 20%)
 - 1.0-1.5 hour (8 students, 11.4%)
 - 1.5-2.0 hour (15 students, 21.4%)



Dicussion

- Staying in a green environment can help them to release their mental and stress after studying
- Green environment can help students feel calm and improve their efficiency and focus towards their studies
- Hence, it shows why most of the respondents would like to stay in a green environment for a long time.

CONCLUSION

- Colours influence students' behavior and perceptions
- Different colours have different implications for us in the way of emotion
- Different colour options on the clothes they want to attend the convention, study room, and slide theme background.
- We can use the colours to set the mood of learning, which will consequently affect our learning performance.

