

# Colour as Motion Graphic Element in Early Awareness Campaign towards Colour Blind in Malaysia

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## Abstract

Colour is an element seen by humans, and the colour is an element that gives emotion and mood to someone who sees it, if a person cannot see the colours around them, they are someone who has colour blindness problems. If not detected from the beginning, the effects of this colour blindness problem will result in various disorders on their health, especially on their emotions. Colour blindness is one of the diseases that not many people are aware of its existence. Therefore, this study has three main objectives that will help this study to produce an early awareness campaign towards colour blindness more effectively. The first objective is, to study the percentage of Malaysians with colour blindness, second, to identify appropriate and effective colours in motion graphics against colour blind people, and third, to produce an early awareness campaign toward colour blindness problems in motion graphics with colour seen by colour blind people. Furthermore, this study will use primary and secondary methods, the first method is observation and the second method is an online survey, these two methods will be used to collect data more accurately based on the study conducted. Besides this study will also involve the selected target audience, which is parents from Nadi Sarjana kindergarten and colour blind people. This research will produce an early awareness campaign towards colour blindness problems in motion graphics by using colours seen by colour blind people for more effectiveness in this campaign. In conclusion, the researchers hope that the campaign will be able to convey the message more effectively to the public.

*Keywords - Colourblind, effects, objectives, methods, target audience, research outcome*

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## 1. Introduction

Graphic design is the art or profession of visual communication that combines images, words, and ideas to convey information to an audience, mainly to produce specific effects on any advertising either to promote or campaign. In other words, graphic design is communication design between designers towards the audience. It is a way of conveying ideas through visuals and designs (Wah, 2018). Every human sight will involve colours. Objects have their colour that conveys a message to the individual who sees the thing because colour can control the individual's emotions (Ahmetaj, 2014). However, many people around us cannot see the colour around them with the same vision as ordinary people (Zammitto, 2005). Based on the study, this group is categorised as those with colour blindness. The problem of colour blind is not only experienced by the foreign community, Malaysia also has a handful of people with colour blind (Hasyimah Hamdan, 2014).

According to eye health experts Dargahi, Einollahi, and Dashti, (2010), colour blindness is also one of the factors a person suffers from emotional disorders and aspects of a person suffering from depression. A study

from the ColourBlindnessAwareness Team, (2019), found that some individuals are colour blind, causing them to think that they will be marginalized from society, their careers, and their future. Colour blindness is a problem for individuals who are unable to determine the colour around them accurately. This is due to the lack of exposure to colour blindness problems. Malaysians are less aware of colour blindness because this campaign is not widespread (Hasyimah Hamdan, 2018). The cause and reason for the colour blind campaign are not celebrated in a way is due to the way the campaign is produced less attractive (ColourblindnessAwareness, 2018). Based on the study, optometry experts have launched around 10 colour blind awareness campaigns among the Malaysian community itself. The use of pamphlets, banners, and infographics was distributed to launch a campaign on colour blindness. According to Karlsen, (2010), the audience will be attracted to new methods and unusual ways to convey a message. Parents do not read much and keep all things because parents will usually be busy in daily life unless they see something that catches their attention (Bonnie, 2015).

Therefore, this research aims to use suitable and effective colour to be applied in motion graphic campaigns for colour blindness awareness campaigns towards parents with kids aged 5 years old for early awareness. To achieve the study aims, the study has produced 3 objectives as the study's main focus. The main objective in this study is, to study the percentage of Malaysians with colour blindness, the second objective is to identify the effectiveness of colour in motion graphics for colour blindness in Malaysia, and the third objective, to create a motion graphics campaign with effective colours for early awareness towards colour blind. These three objectives are the main focus to produce an effective early awareness campaign.

Therefore, there are some suggestions and solutions to deal with this problem more widely, namely by producing a campaign that uses modern trending technology, it is motion graphic. Motion graphics also require the use of colour for attraction. The study will create a campaign using motion graphics as the main method by focusing on the use of colour elements as elements to convey the message to the audience on the initial awareness of colour blindness. Various special effects that can be used in motion graphics, as an attraction, the study found that colour is the main cause of conveying a message to the audience. According to Jameson, Highnote, and Wesserman, (2001), colour, is an element that plays an important role in a visual graphic because its colour carries a specific meaning.

## **1. Methodology**

This study will use quantitative methods to produce a more effective campaign to expose to audiences about early awareness towards color blind.

### **2.1 Sample**

This research will involve a methodology that requires researchers to collect data to produce an effective campaign. Therefore, this study will use quantitative to collect data and produce an effective campaign. This method will be carried out by primary and secondary methods, which is primary methods, is observing and secondary methods is by using a closed-ended questionnaire. Primary methods will involve, observing journals, articles and books related to colour blindness, colour elements, and motion graphics, and for secondary methods using closed-ended questionnaire method to conduct a survey to the target of the selected respondents which is 15 parents, namely Parents from Nadi Sarjana Kindergarten who have children from the age of 5 years and above as respondents who need exposure on colour blindness.

### **2.2 Instruments**

The study will use quantitative methods, namely primary and secondary. Primary methods are to research observations on journals, articles and books to obtain information about colour blindness, attractive colours and motion graphics. As for secondary procedures, the study will use a closed-ended questionnaire that is content with questions related to campaign effectiveness, and the effectiveness of the use of colour elements in motion graphics. This survey will be distributed to parents from Nadi Master Kindergarten, ophthalmologist experts and

even colour blind people. With this method, the study will collect the data needed for the production of an effective campaign.

**2. Results**

Based on the data obtained, the study shows data on observations and surveys obtained from respondents. The data obtained is intended to achieve the objectives in this study. Based on the data obtained, the study has processed the data in this chapter to produce a campaign that can convey the message well.

This campaign will use motion graphics as the main method of producing this campaign, the results of the survey show the data obtained from the respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	27.3	27.3	27.3
	2	1	9.1	9.1	36.4
	4	1	9.1	9.1	45.5
	5	5	45.5	45.5	90.9
	6	1	9.1	9.1	100.0
	Total	11	100.0	100.0	

Figure 1. Example Colour Blind Past Campaign Attraction

The data shows the percentage of respondents interested in the type of past campaign given in the survey. As many as 45.5% were interested in the fifth campaign which uses storyline and motion graphics as the main method of campaign production, while 27.3% of respondents were interested in the first campaign which is a campaign that provides facts about colour blindness with simple animation. Therefore 9.1% per cent of respondents are interested in past campaigns 2, 4 and 6, a campaign that uses storytelling background and simple shot animation. In conclusion, the data shows that the motion graphic campaign method is more attractive than other campaigns.

Besides, this campaign will also detail on the use of colour, by using the colour seen by colour blind people. This campaign aims to give early awareness to the audience, with this colour used, the researcher thinks by this type of colour can give the audience a message about the colour they see is the misery felt by colour blind people. Therefore, researchers have used surveys to collect data based on the colours used in this campaign. The researcher has used closed-ended questionnaires to get a response from the target audience for the purpose of using a colour blind palette in motion graphics campaign.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	81.8	81.8	81.8
	Maybe	2	18.2	18.2	100.0
	Total	11	100.0	100.0	

Figure 2. The attraction on using Colour Blind colour palette in Campaign

The data obtained from the survey results show that the percentage rate of respondents who agree with this colour palette is interesting to use. The percentage indicates 81.8% of respondents agree while 18.2% indicate they disagree to use this colour in this campaign because it will make this campaign look dull. In conclusion, the researcher's colour is intended to convey the message, which is the way that the respondent disagrees it is to show how colour blind miserable and confused by the colours around them.

### 3.1 Pre-Test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

Figure 3. Pre-Test Result on Delivers Message through Colours in this campaign

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	75.0	75.0	75.0
	Maybe	2	25.0	25.0	100.0
Total		8	100.0	100.0	

Figure 4. Pre-Test Result on Effectiveness and Attraction on Colours

Based on table 4 and 5, results show respondents percentage of this study, namely parents from Nadi Sarjana Kindergarten, based on the data, 100% respondents understand the colour used is what is seen by colour blind people and effectiveness using colour blind palette is, 75% percent of respondents show they attract with that colour and 25% per cent said that the colour looks dull. Therefore, based on the data, researchers have improved the product in terms of colour by using a mixture of colours on some of the visuals produced.

### 3.2 Post-Test

The study has also surveyed respondents on the benefits of conducting this campaign to the community. The results showed that 100% of the respondents, namely parents from Nadi Sarjana Kindergarten agreed that this campaign would benefit the community, especially the parents to be more exposed to the early effects of colour blind problems.

## 3. Discussion

Malaysian society, especially among parents, is not exposed to colour blind can also be experienced from an early age. This study was conducted to produce a motion graphics campaign with a colour blind palette. Based on the data obtained, this study will produce a campaign to provide early awareness of the community about colour blindness. Besides, based on the respondents' survey data, respondents agreed to use the colour seen by colour blind people used in this campaign. The purpose of this campaign using this colour is to convey the message of how colour blind people see colours around them. Therefore, with the production of simple characters, and backgrounds that use paper cut style and a combination of colour blind palette will be processed and made into a video using Adobe After Effects to produce a more interesting effect.

#### 4. Conclusion

Malaysians have not been exposed to colour blindness, but the effect is not as we see, that is, just can not see the colour correctly, it involves severe disturbances in their emotions and daily activities. Therefore, with the results of the data obtained, can further help this study in conducting a campaign to provide early awareness of the problem of colour blindness. This study was also conducted in the hope that this study can be used by researchers in the future to further enhance more interesting methods to enhance awareness in Malaysian society.

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#### References

- Ahmetaj, Q. (2014). The Influence of Colours to The People Moods, Retrieved from [https://www.academia.edu/10503718/The\\_influence\\_of\\_colors\\_to\\_the\\_people\\_mood\\_Qendrim\\_Ahmetaj](https://www.academia.edu/10503718/The_influence_of_colors_to_the_people_mood_Qendrim_Ahmetaj)
- Bonnie, R. J (2015). Essentials of Public Health Ethics, Retrieved from [https://books.google.com.my/books?id=MLxUAgAAQBAJ&pg=PA194&lpg=PA194dq=unattract+campaign+towards+parents&source=bl&ots=h0khkk\EcHz&sig=ACfU30Hg5JQcmk\\_s61jCaMhAzX8ALK4g&hl=en&sa=X&ved=2ahUKEwjst\\_mzj9vmAhWYbX0KHb1RAvIQ6AEwAHoECAUQAQ#v=onepage&q=unattract%20campaign%20towards%20parents&f=false](https://books.google.com.my/books?id=MLxUAgAAQBAJ&pg=PA194&lpg=PA194dq=unattract+campaign+towards+parents&source=bl&ots=h0khkk\EcHz&sig=ACfU30Hg5JQcmk_s61jCaMhAzX8ALK4g&hl=en&sa=X&ved=2ahUKEwjst_mzj9vmAhWYbX0KHb1RAvIQ6AEwAHoECAUQAQ#v=onepage&q=unattract%20campaign%20towards%20parents&f=false)
- ColourBlindnessAwareness. (2018 ). Colour Blindness Education Animation. Retrieved From <http://www.colourblindawareness.org/about-us/colour-blind-awareness-day-2019/>Darghi, H. Einollahi, N. Dashti, N, (2010). Color Blindness Defect and Medical Laboratory Technologists: Unnoticed Problems and the Care for Screening
- Hasyimah Hamdan. (2014, November 4). Rabun Warna. MyHealth Kementerian Kesihatan Malaysia. Retrieved from <http://www.myhealth.gov.my/rabun-warna/>
- Karlsen R. (2010). Does new media technology drive election campaign change?. Retrieved from [https://www.researchgate.net/publication/260348927\\_Does\\_new\\_media\\_technology\\_drive\\_election\\_campaign\\_change](https://www.researchgate.net/publication/260348927_Does_new_media_technology_drive_election_campaign_change)
- Jameson, K. A., Highnote, S. M. and Wesserman, L. M. (2001). Richer color experience in observers with multiple photopigment opsin genes. Retrieved from <https://link.springer.com/article/10.3758/BF03196159>
- Wah, J. (2018). What Is Graphic Design?. Retrieved from <https://learn.g2.com/what-is-graphic-design>
- Zammito, V, (2005). The Expressions of Colours. Retrieved from [https://www.researchgate.net/publication/221217313\\_The\\_Expressions\\_of\\_Colour](https://www.researchgate.net/publication/221217313_The_Expressions_of_Colour)